Bachelor of Urban Development (Quantity Surveying) (UD40)

Year offered: 2013
Admissions: Yes
CRICOS code: 056387B
Course duration (full-time): 4 years
Domestic Fees (indicative): 2013: CSP $4,400 (indicative) per Semester (48 credit points)

Student Services and Amenities Fee
You’ll need to pay the Student Services and Amenities Fee (SSAF) as part of your course costs. More information on the SSAF - http://www.student.qut.edu.au/fees-and-finances/study-costs/fee-schedule/table-I-student-services-and-amenities-fee

Additional costs You’ll need to pay some costs on top of your course fees. Additional course costs - http://qut.edu.au/study/fees-and-scholarships/additional-compulsory-course-costs

Start month: February, July
QTAC code: 412312; students apply to study Bachelor of Urban Development (Construction Management)
Past rank cut-off: 85
Past OP cut-off: 8
OP Guarantee: Yes
IELTS (International English Language Testing System): Overall: 6.0, Subscores: 6.0
Deferment allowed: Yes
Total credit points: 384
Standard credit points per full-time semester: 48
Course coordinator: Chris Eves
Discipline coordinator: Mr Jason Gray
Campus: Gardens Point
Attendance: Full-time

Assumed knowledge: English
Assumed knowledge notes: We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA) of English and one of the following: Maths A, Maths B or Maths C.
For information on acquiring assumed knowledge visit http://www.qut.edu.au/assumed-knowledge

Course highlights
- Study a Bachelor of Urban Development Quantity Surveying and gain practical skills and experience that allow you to specialise within the construction industry.
- Prepares you to provide professional advice to the construction industry on the financial and legal aspects of new constructions and operation of existing buildings.
- Learn to manage and administer construction costs and contracts, bills of quantities, tender appraisals, valuations, project audits, property taxation and life cycle cost advice.
- Study building management, cost planning, building development and research, policy development, measurement and construction and legal issues.
- Gain practical experience on field trips, site visits, lab based work, and industry placements.

Details:
Quantity surveying involves providing professional advice to the construction industry on the financial and legal aspects of new constructions, and operation of existing buildings. Quantity surveyors are involved in the construction process from the feasibility stage to post-completion. They manage and administer construction costs and contracts for a variety of levels and types of construction. This may include tasks such as preparing cost plans and estimates, bills of quantities, tender appraisals, valuations, project audits, property taxation and life cycle cost advice.
In addition to new projects, quantity surveyors also use their skills in the refurbishment of older buildings, alterations to existing buildings and insurance replacement estimates. If working for public authorities they maintain cost statistics on a statewide or nationwide basis.
Quantity surveyors work closely with many other professionals including architects, financiers, project managers, engineers, contractors, suppliers, solicitors and with all levels of government. They usually work in offices but also visit building sites, clients and other members of design teams.

Why choose this course?
Quantity surveying offers studies in building management, cost planning and cost control, building development techniques, building research, computer software applications, measurement of construction, and legal issues.
You will be offered opportunities such as field trips, site visits, and practical and laboratory-based work, which enhance your employment opportunities.
The flexible structure of the course enables you to choose a second specialisation or groups of minor units to match your career aspirations and personal goals. This maximises your employment opportunities, offering breadth of knowledge and a real focus based on your unique study plan.
Career outcomes
As a quantity surveyor you will be employed predominantly on major building and construction projects as a consultant to the owner, in both the public and private sectors. You may find employment with consulting firms, local, state or federal government departments/authorities, and increasingly with building contractors, financiers, property developers, project managers and universities.

Specialisation pathway
Quantity surveying is a specialist discipline within the construction industry. To become a quantity surveyor, apply to enrol in Bachelor of Urban Development (Construction Management). Your first year will provide you with important foundation units in construction. From second year you begin specialising in quantity surveying, and graduate as a quantity surveyor with the degree Bachelor of Urban Development (Quantity Surveying).

Professional recognition
The course maintains various accreditations with 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.

Structures and Units
Work Integrated Learning unit
Students are required to gain a minimum of 80 days of approved employment in the final year of the course.

Your course
Year 1
Complete a common first year with construction management students. You start your studies with foundation units including residential construction and engineering, basic professional learning (including an introduction to research writing), sustainability, land stewardship, urban development economics and building measurement.

Year 2
Apply your construction body of knowledge introduced in first year, and begin to develop the range of graduate capabilities through an introduction to more complex construction techniques, methodologies and management issues relating to your degree in quantity surveying. Your analytical and technical skills continue to be honed through commercial construction and the environment. The law and business skills you gain in the second year will also help further develop lifelong learning skills.

Year 3
Increase your knowledge and skills in construction and quantity surveying. You are introduced to in-depth knowledge of the economic, managerial, legal and technical aspects of construction activity, such as high-rise construction, cost planning and control. Undertake second majors/minors to extend construction and quantity surveying knowledge. These allow you to broaden your education by undertaking units from other faculties within the University, subject to accreditation requirements.

Year 4
In your final year you complete your selected second major/minors, involving a major project which brings together all your previously mastered skills, and advances your communication skills in dissertation writing and seminar presentation. You also complete work integrated learning in the quantity surveying discipline, ensuring you are workforce ready.

Second major 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
- Work Integrated Learning Minor
- Sustainability Minor
- International Minor
- Indigenous Studies Minor
- Research Minor
- Project Collaboration Minor
- **Collaborative Digital Design Minor**

A minor from anywhere in QUT.

**Quantity Surveying major** - Students commencing February 2010 onwards

**Year 1 - Semester 1**
- UDB100 Urban Development and Sustainability
- UDB101 Stewardship of Land
- UDB110 Residential Construction and Engineering
- UDB111 Engineering Construction Materials

**Year 1 - Semester 2**
- UDB200 Project Planning in Urban Development
- 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

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**Second Major/Minor unit**

**Year 4 - Semester 2**
- BEB801 Project 1
- UDB302 Development Process

**Faculty Minor options**

**Collaborative Digital Design**

PLEASE NOTE: This minor is no longer available for commencement from the end of 2012.

The aim of the Collaborative Digital Design minor is to provide a series of units in which:

* You will collaborate with students from different disciplines across BEE on developing designs against a range of criteria.

* You will learn to use a range of software tools that improve communication between the members of the design and manufacture/construction team and between the project team and non-technical stakeholder.

* You will use a range of software support tools that allow the rapid exploration of alternatives and resolution of design problems.

* You will develop skills to reflect on and characterise how tools support interdisciplinary collaboration and to understand how these tools may fit into workflows in industry.

Select 48cp from the Collaborative Digital Design Unit Options below:

- BEB210 Introduction to Collaboration
- BEB211 Parametric Design Systems
- BEB212 Advanced Collaboration
- BEB213 Sustainable Design Systems
- KIB103 Introduction to Web Design and Development

**Indigenous Studies (DISC 30/06/2013)**

FOR CONTINUING STUDENTS ONLY. Uniwide minor EDBXMRN-INDIGEN (Indigenous Studies Minor) is another option for interested students.

This minor has been developed in consultation with the Oodgeroo Unit, to focus on indigenous perspectives on built environment and engineering and the professions served by these fields of study.

Units will be sourced in other Faculties &...
Divisions. Further information on units included in this minor is available at the Oodgeroo Unit subject information page at http://www.oodgeroo.qut.edu.au/about/unitscourse.jsp

Select 48cp from the Indigenous Studies Unit Options below:

EDB007  Culture Studies: Indigenous Education
EDB038  Indigenous Australian Culture Studies
EDB039  Indigenous Politics and Political Culture
EDB040  Indigenous Knowledge: Research Ethics and Protocols
EDB041  Indigenous Australia: Country, Kin and Culture

Maximum of one unit of Work-integrated Learning (EB701-EB707). Work experience must be conducted in a professional or community organisation focusing on Indigenous issues.

International (DISC 30/06/2013)

FOR CONTINUING STUDENTS ONLY. Uniwide minor BSBXMNR-INTLBUS (International Business Minor) is another option for interested students.

This minor will allow you to focus on international issues and prepare for global professional practice. The focus on business languages and international business is designed to equip students who choose this minor to work more readily in international environments.

Select 48cp from the International or Language Unit Options below:

BSB119  Global Business
AMB336  International Marketing
AMB210  Importing and Exporting
AMB303  International Logistics
MGB225  Intercultural Communication and Negotiation Skills

Foreign Language units (minimum of two units)

Project Collaboration

The Minor in Project Collaboration offers you both the theoretical understanding and practical applications of professional project development and management practices, with a focus on built environment and engineering projects.

Note:

***Students in UD40 Bachelor of Urban Development (Construction Management) cannot take UDB313 or BEB113 due to content overlap with core Construction Management units.

Select 48cp from the Project Collaboration Unit Options below:

UDB313  Programming and Scheduling
BEB110  Organising and Managing Project Team
BEB111  Managing Project Quality
BEB112  Principle of Project Management
BEB113  Managing Project Cost
BEB114  Project Financing

Research

(BEE students only)

This minor is designed to ensure that students with interest and capacity for higher degree research have the opportunity, during their undergraduate degree, to be well-prepared to undertake further study following graduation. This minor contains units that allow you to develop, implement and evaluate research knowledge and skills.

Units will be offered to illustrate a broad range of research types such as practice-led research, experimentally-based research, and work-based research.

Select 48cp from the Research Unit Options below:

EDN612  Conducting Innovative Educational Research
ENB379  Transport Engineering and Planning Applications
ENB441  Applied Image Processing
ENB448  Signal Processing and Filtering
ENB474  Finite Element Methods
MAB210  Probability and Stochastic Modelling 1
MAB314  Probability and Stochastic Modelling 2
MAB524  Statistical Inference
MAB536  Time Series Analysis 1
PYB110  Psychological Research Methods

Sustainability (Discontinued)

PLEASE NOTE: This minor is no longer...
available for commencement from the end of 2012.

This minor will allow you to develop deeper understandings of and specialisations in the future role of your profession in the sustainable development of modern societies. The minor will build on Faculty-wide common units in Professional Learning and Sustainability.

Minor Contents:
* One to four specialisation units
* Up to two units of work-integrated learning (WIL)
* Up to two problem-based multidisciplinary project units

Notes:
Students would be expected to complete one of DEB100/ENB100/UDB100 first, but this would not be a prerequisite.

All students in the Bachelor of Design seeking a Minor in Sustainability must take a minimum of two of the following units: BEB901-BEB904

Design students enrolling in the Sustainability minor must first consult and obtain approval from the Subject Area Coordinator/Course Coordinator prior to enrolling in BEB801 or BEB802.

Select 48cp from the Sustainability Unit Options below:

Specialisation Units:
- BEB901 Retrofitting for Sustainability
- BEB902 Greening the Built Environment
- BEB903 Greenhouse Solutions
- BEB904 Eco-Innovation for Sustainability
- BEB213 Sustainable Design Systems

Work-Integrated Learning Units (must address sustainability objectives):
- BEB701 Work Integrated Learning 1
- BEB702 Work Integrated Learning 2

Multi-disciplinary Project Units (must address sustainability objectives):
- BEB801 Project 1
- BEB802 Project 2

Work-integrated Learning 1
(Not available to UD40MJR-URBPLAN students.)

This minor will allow you to undertake structured work experience, guided by academic objectives, for academic credit.

Select 48cp from the Work-integrated Learning Unit Options below:
DEB100 Design and Sustainability
DEB103 Visualisation 1
DEB202 Introducing Design History
DEB203 Visualisation 2
DNB101 Industrial Design 1
DNB201 Industrial Design 2
DNB202 Product Usability
DNB301 Industrial Design 3
DNB302 Computer Aided Industrial Design
DNB303 Manufacturing Technology
DNB401 Industrial Design 4
DNB402 Socio-cultural Studies
DNB501 Industrial Design 5
DNB502 Industrial Design History, Theory and Criticism
DNB601 Industrial Design 6
DNB602 New Product Development

Please Note:
BEB801 and BEB802 require announced School of Design Project or activity.
DEB-coded units can only be selected by Non-DE40 students.

Interior Design Studies (DEBXSMJ-INTDESN)
(not available to DE40MJR-INTDESN or UD40MJR-QUANSRV or UD40MJR-URBPLAN students)
Select 96cp from the Interior Design Studies unit options below:

BEB801 Project 1
BEB802 Project 2
DEB103 Visualisation 1
DEB202 Introducing Design History
DEB203 Visualisation 2
DTB101 Interior Design 1
DTB201 Interior Design 2
DTB202 Design Technology
DTB301 Interior Design 3
DTB302 Colour Studies
DTB303 Technical Design
DTB401 Interior Design 4
DTB402 Interior Systems
DTB403 Human Environment
DTB501 Interior Design 5
DTB502 Environments in Transition
DTB601 Interior Design 6
DTB602 Design in Society

Please Note:
BEB801 and BEB802 require announced School of Design Project or activity.
DEB-coded units can only be selected by Non-DE40 students.

Landscape Architecture Studies (DEBXSMJ-LNDARCH)
(not available to DE40MJR-LNDARCH or UD40MJR-QUANSRV students)
Select 96cp from the Landscape Architecture Studies unit options below:

BEB801 Project 1
BEB802 Project 2
DEB103 Visualisation 1
DEB202 Introducing Design History
DEB203 Visualisation 2
DLB130 Landscape Design 1
DLB210 Landscape Design 2
DLB230 Landscape Horticulture
DLB310 Landscape Design 3
DLB330 Landscape Ecology
DLB410 Landscape Design 4
DLB430 Landscape Construction 1
DLB510 Landscape Design 5
DLB525 History and Criticism of Landscape Design
DLB530 Landscape Construction 2
DLB630 Landscape Construction 3
DLB645 Landscape Practice and Law

Please Note:
BEB801 and BEB802 require announced School of Design Project or activity.
DEB-coded units can only be selected by Non-DE40 students.

Engineering Studies Minor options

Introduction to Civil Engineering Studies (ENBXMNR-CIVLENG)
(not available to EN40 students)
ENB110 Engineering Statics and Materials
ENB270 Engineering Mechanics of Materials
MAB126 Mathematics for Engineering 1
Select one unit from the Civil Engineering
Studies unit options below:
ENB272  Geotechnical Engineering 1
ENB276  Structural Engineering 1
ENB280  Hydraulic Engineering

Introduction to Electrical Engineering Studies (ENBXMNR-ELECENG)
(Not available to EN40 students)
ENB120  Electrical Energy and Measurements
ENB250  Electrical Circuits
MAB126  Mathematics for Engineering 1
Select one unit from the Electrical Engineering Studies unit options below:
ENB240  Introduction To Electronics
ENB246  Engineering Problem Solving

Introduction to Mechanical Engineering Studies (ENBXMNR-MECHENG)
(Not available to EN40 students)
ENB110  Engineering Statics and Materials
ENB212  Strength of Materials
MAB126  Mathematics for Engineering 1
Select one unit from the Mechanical Engineering Studies unit options below:
ENB221  Fluid Mechanics
ENB222  Thermodynamics 1
ENB231  Materials and Manufacturing 1

Urban Development Second Major options
Construction Management Residential Construction (UDBXSMJ-CMRESID)
(Not available to UD40MJR-COMRESMTG or UD40MJR-QUANRESMTG students)
Select 96cp from the Construction Management Residential Construction unit options below:
UDB110  Residential Construction and Engineering
UDB111  Engineering Construction Materials
UDB112  Professional Studies 1
UDB113  Measurement 1
UDB210  Commercial Construction and Engineering
UDB213  Construction Estimating
UDB214  Professional Studies 2
UDB312  Contract Administration
UDB313  Programming and Scheduling
UDB314  Statutory Construction Law
UDB316  Cost Planning and Control
Choose either:
UDB110  Residential Construction and Engineering
or
UDB210  Commercial Construction and Engineering
Choose either:
UDB101  Stewardship of Land
or
UDB216  The Environment and the Quantity Surveyor
Choose either:
UDB202  Business Skills
or
UDB314  Statutory Construction Law

Financial Management of Construction (UDBXSMJ-FINCONS)
(Not available to UD40 students)
UDB102  Applied Law
UDB104  Urban Development Economics
UDB113  Measurement 1
UDB312  Contract Administration
UDB316  Cost Planning and Control
Choose either:
UDB110  Residential Construction and Engineering
or
UDB210  Commercial Construction and Engineering
Choose either:
UDB101  Stewardship of Land
or
UDB216  The Environment and the Quantity Surveyor
Choose either:
UDB202  Business Skills
or
UDB314  Statutory Construction Law

Property Economics Development (UDBXSMJ-PROPDEV)
(Not available to UD40MJR-PROPECO students)
UDB140  Property Valuation 1
UDB240 Planning Theory and Processes

OR

UDB245 Urban Land Studies
(Planning students must select UDB245.)

UDB242 Property Valuation 2

UDB246 Property Feasibility Studies

UDB302 Development Process

OR

UDB243 Property Economics
(UD40 students must select UDB243.)

Select 36cp from the Property Economics Development unit options below:

UDB104 Urban Development Economics

UDB110 Residential Construction and Engineering

UDB141 Building Studies

UDB243 Property Economics

UDB244 Property Law 2

UDB245 Urban Land Studies

UDB341 Property Finance

Note:
Construction Management and Quantity Surveying students cannot select UDB141.

Property Economics Valuation (UDBXSMJ-PROPVAL)
(not available to UD40MJR-PROPECO students)

UDB140 Property Valuation 1

UDB241 Property Law 1

UDB242 Property Valuation 2

UDB244 Property Law 2

UDB246 Property Feasibility Studies

UDB247 Property Valuation 3

Select 24cp from the Property Economics Valuation unit options below:

UDB104 Urban Development Economics

UDB110 Residential Construction and Engineering

UDB141 Building Studies

UDB240 Planning Theory and Processes

UDB243 Property Economics

UDB245 Urban Land Studies

UDB247 Property Valuation 3

UDB302 Development Process

Note:
Construction Management and Quantity Surveying students cannot select UDB141.

Spatial Science Studies (UDBXSMJ-SPATSCI)
(not available to UD40MJR-SPATSCI or UD40MJR-QUANSRV students)

Select 96cp from the Spatial Science Studies unit options below:

UDB181 Geospatial Positioning and GPS

UDB182 Surveying

UDB281 Geographic Information Systems

UDB282 Remote Sensing

UDB283 Surveying Computations

UDB284 Engineering Surveying

UDB285 Cadastral Surveying

UDB381 Geospatial Mapping

UDB382 Photogrammetric Mapping

UDB383 Control Mapping

UDB384 Geodesy

UDB385 Cadastral and Land Management

UDB387 Spatial and Land Information Management

UDB388 Spatial Analysis Practice

UDB483 Global Positioning Principles and Practice

UDB484 Topographic, Hydrographic and Mining Surveying

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MAB101  Statistical Data Analysis 1  
MAB120  Foundations of Calculus and Algebra  
MAB730  Surveying Mathematics 2  

Urban and Regional Planning Studies (UDBXSMJ-URBPLAN)  
(not available to UD40MJR-URBPLAN students)  
Select 96cp from the Urban and Regional Planning Studies unit options below:  

UDB101  Stewardship of Land  
UDB161  Introduction to Planning and Design  
UDB162  History of Built Environment  
UDB163  Land Use Planning  
UDB164  Population and Urban Studies  
UDB266  Planning Processes and Consultations  
UDB267  Development Assessment and Infrastructure  
UDB368  Urban Design  
UDB369  Negotiation and Conflict Resolution  
UDB370  Environmental Planning and Management  
UDB471  Urban Planning Practice  
UDB475  Regional and Metropolitan Policy  
The pre-requisites for UDB266 and UDB267 are waived for Landscape Architecture students wishing to undertake these units.  

Urban Development Minor options  

Building Economics (UDBXMNR-BUILDEC)  
(not available to UD40MJR-CONSMGT or UD40MJR-QUANSRV or UD40MJR-URBPLAN students)  
UDB216  The Environment and the Quantity Surveyor  
UDB316  Cost Planning and Control  
UDB317  Residential Construction and Engineering  
UDB318  Commercial Construction and Engineering  
UDB113  Measurement 1  
UDB104  Urban Development Economics  

Legal Administration in Construction (UDBXMNR-LEGCONS)  
(not available to UD40MJR-CONSMGT or UD40MJR-PROPECO or UD40MJR-QUANSRV or UD40MJR-URBPLAN students)  
UDB102  Applied Law  
UDB312  Contract Administration  
UDB216  The Environment and the Quantity Surveyor  
UDB101  Stewardship of Land  
UDB202  Business Skills  
UDB314  Statutory Construction Law  

Property Economics Development (UDBXMNR-PROPDEV)  
(not available to UD40MJR-PROPECO students)  
UDB140  Property Valuation 1  
UDB240  Planning Theory and Processes  
OR  
UDB245  Urban Land Studies  
(Planning students must select UDB245.)  
UDB302  Development Process  
OR  
UDB243  Property Economics  
(UD40 students must select UDB243.)  
Select one unit from the Property Economics Development unit options below:  
UDB242  Property Valuation 2  
UDB246  Property Feasibility Studies  
UDB341  Property Finance  

Property Economics Investment (UDBXMNR-PROPINV)  
(not available to UD40MJR-PROPECO students)  
UDB140  Property Valuation 1  
UDB242  Property Valuation 2  
UDB246  Property Feasibility Studies  
UDB341  Property Finance  
UDB344  Property and Asset Management  

Property Economics Valuation (UDBXMNR-PROPVAL)  
(not available to UD40MJR-PROPECO students)  
UDB140  Property Valuation 1  
UDB241  Property Law 1  
UDB242  Property Valuation 2  
UDB247  Property Valuation 3  

Information for future students  
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Residential Construction (UDBXMNR-RESCONS)
(not available to UD40MJR-CONSMGT or UD40MJR-QUANSRV or UD40MJR-URBPLAN students)
Select four units from the Residential Construction unit options below:
UDB110 Residential Construction and Engineering
UDB111 Engineering Construction Materials
UDB112 Professional Studies 1
UDB113 Measurement 1
UDB213 Construction Estimating
UDB214 Professional Studies 2

Urban and Regional Planning Studies (UDBXMNR-URBPLAN)
(not available to UD40MJR-URBPLAN students)
Select four units from the Urban and Regional Planning Studies unit options below, of which at least two must be advanced units.
Introductory Units:
UDB101 Stewardship of Land
UDB161 Introduction to Planning and Design
UDB162 History of Built Environment
UDB163 Land Use Planning
UDB164 Population and Urban Studies
Advanced Units:
UDB266 Planning Processes and Consultations
UDB267 Development Assessment and Infrastructure
UDB368 Urban Design
UDB369 Negotiation and Conflict Resolution
UDB370 Environmental Planning and Management
UDB471 Urban Planning Practice
UDB475 Regional and Metropolitan Policy

DISCONTINUED: Spatial Science Studies (UDBXMNR-SPATSCI)
PLEASE NOTE: This minor set has been discontinued from the end of 2012, and is available to continuing students only.
(not available to UD40MJR-SPATSCI students)
Select four units from the Spatial Science Studies unit options below:
UDB181 Geospatial Positioning and GPS
UDB182 Surveying
UDB281 Geographic Information Systems

UDB282 Remote Sensing
UDB381 Geospatial Mapping
UDB387 Spatial and Land Information Management
UDB388 Spatial Analysis Practice

Language Minor options

Language Minor Options
Further information is located at:
http://www.bus.qut.edu.au/courses/languages/
Mandarin Language (BSBXMN-MNDARIN)
Italian (BSGUMNR-ITALIAN)
Japanese (BSUQMNR-JAPAN)
Spanish (BSUQMNR-SPANISH)
French (BSUQMNR-FRENCH)
German (BSUQMNR-GERMAN)
Indonesian (BSUQMNR-INDO)
Japanese (BSUQMNR-JAPAN)
Korean (BSUQMNR-KOREAN)
Russian (BSUQMNR-RUSSIAN)
Spanish (BSUQMNR-SPANISH)

Potential Careers:
Estimator, Manager, Quantity Surveyor.

UNIT SYNOPSISES

AMB210 IMPORTING AND EXPORTING
Trade has become fundamental to the survival and growth of many businesses in Australia as well as other economies. International business students need an understanding of the many challenges entailed in the management of trade. Import and export practice is an applied, technical and evolving area of international business operations that reflects the dynamic nature of trans-national trade in the global economy. This unit examines the importance of importing and exporting for Australia’s economic development.

Prerequisites: BSB119 or CTB119
Equivalents: AMX210, IBB210
Credit points: 12
Campus: Gardens Point
Teaching period: 2013 SEM-1 and 2013 SEM-2

AMB303 INTERNATIONAL LOGISTICS
This unit examines international logistics through the concepts of international distribution channels and international supply chain management. Strategy in managing international logistical constraints is emphasised with practical studies of contemporary international supply chain management in international industries. Traditional costs and financial aspects of supply chain management are considered. Contemporary issues are incorporated including: the impact of e-business on international logistics; the evolution of new technologies for ‘smart’ packaging, warehousing and international stock control; the combination of international services with goods products; recent technological developments in international transportation and product quality control.

**Prerequisites:** AMB210, IBB210, AMB240, or CTB240  
**Equivalents:** AMX303, IBB303  
**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1 and 2013 SEM-2

**AMB336 INTERNATIONAL MARKETING**
The aim of this unit is to provide students with a thorough understanding of the multiplicity of issues that impact on the development of international marketing strategies and plans and their operational implementation. The unit is highly applied and provides students with the following opportunities: to analyse global international firms, their marketing strategies and various international marketing issues in a variety of geographic and industry contexts; to evaluate methodologies and new practices for handling problems and issues typical of global and international markets and competition; to develop an operationally sound international marketing plan.

**Prerequisites:** AMB240, CTB240, AMB210, or IBB210  
**Equivalents:** AMX336, IBB213  
**Credit points:** 12  
**Campus:** Gardens Point and Caboolture  
**Teaching period:** 2013 SEM-1, 2013 SEM-2 and 2013 SUM

**BEB110 ORGANISING AND MANAGING PROJECT TEAM**
The unit focus is on the dynamics of managing and organising project teams involved in delivering built environment, engineering or infrastructure projects. Recent literature has identified the need for managers and leaders to acquire knowledge in the areas of self management and the management of others to contribute to project effectiveness. You will be introduced to key managerial and human resource theories to assist in the development of analytical and interpretive skills to enable you to proactively and effectively lead project teams.

**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**BEB111 MANAGING PROJECT QUALITY**
This unit is one of four within the BEE minor in Project Collaboration and is designed to provide you with appropriate knowledge and skills needed for your involvement in delivering projects in professional organisations in the public and private sectors, by ensuring that the achieved project quality outcomes accord with client requirements and satisfy customer expectations.

**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**BEB112 PRINCIPLE OF PROJECT MANAGEMENT**
Project Management is the overall planning, control and coordination of a project, from inception to completion, aimed at meeting a client’s requirements in order that the project will be completed on time within authorized cost and to the required quality standards. The aim of this unit is to provide the key concepts and foundation knowledge in project management, and to describe, clarify, and formalise project management process.

**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**BEB113 MANAGING PROJECT COST**
Cost is a major metric of a successful project management. This unit introduces the process of managing project cost which includes planning, estimating, budgeting, and controlling costs so that the project can be completed within the approved budget.

**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**BEB114 PROJECT FINANCING**
Project is growing in complexity and size. Many projects never get off the ground due to insufficient financing. It is therefore necessary for project managers to know the sources and cost of project funds in order to package a financially viable project for approval. This unit introduces capital budgeting, project finance, and risk analysis. It covers the capital allocation framework, project cash flows, cost of capital, financial risk analysis, and how various types of projects are financed.

**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**BEB210 INTRODUCTION TO COLLABORATION**
This unit introduces students to the foundational aspects of collaboration within the design and documentation of artefacts, using Building Information Modelling (BIM) approach. Focusing on multidisciplinary collaboration during the complete life cycle of a built environment facility. This unit is an approach to the theory and practice of BIM software, exploring the translation from Computer Aided Design (CAD) to BIM. This unit is also the foundation for BEB212 Advanced Collaboration.

**Assumed knowledge:** DE40/ UD40 students completion of Yr 1 units; EN40 students completion of Yr 1 & 2 units. Additionally, for all students, working knowledge of 3D CAD
software for your discipline, demonstrated by completion of one unit utilising 3D CAD or equivalent. **Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**BEB211 PARAMETRIC DESIGN SYSTEMS**

This subject introduces students to the use of parametric geometry systems that are used in early stages of design. These are the systems used by major design firms such as Zaha Hadid and Frank Gehry (architecture), SOM (architecture/engineering) and Arup (engineering).  
**Assumed knowledge:** DE40/ UD40 students completion of Yr 1 units; EN40 students completion of Yr 1 & 2 units. Additionally, for all students, working knowledge of 3D CAD software for your discipline, demonstrated by completion of one unit utilising 3D CAD or equivalent. **Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**BEB212 ADVANCED COLLABORATION**

In a real environment designers need to collaborate with others using a range of design tools provided by different software vendors. In this unit you will develop an understanding of interoperability and methods of maximising the benefits of information exchange across a range of design tools.  
**Prerequisites:** BEB210  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**BEB213 SUSTAINABLE DESIGN SYSTEMS**

A range of sustainability tools will be covered that support environmental impact analysis, economic analysis and social impact assessment, within a holistic approach to design. The capabilities of the tools will be discussed and then used to build up appropriate workflows that support integrated assessment for sustainability. These will be applied to a comprehensive design problem to reinforce the students understanding.  
**Assumed knowledge:** DE40/ UD40 students completion of Yr 1 units; EN40 students completion of Yr 1 & 2 units. Additionally, for all students, working knowledge of 3D CAD software for your discipline, demonstrated by completion of one unit utilising 3D CAD or equivalent. **Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**BEB701 WORK INTEGRATED LEARNING 1**

This unit aims to provide you with the opportunity to learn in a workplace environment. It will involve attendance, participation, observation, critical reflection, and report writing on workplace activities. The emphasis of your critical reflection and report writing will be on identifying and describing aspects of professional relevance incorporating: collaboration and teamwork; work place, health and safety; professional conduct; ethical responsibility, and other aspects of your work place experience. This unit may form part of your (compulsory) course core (as required by professional accrediting bodies e.g. Engineers Australia, Australian Institute of Building, Royal Institution of Chartered Surveyors), or it may be one of several work integrated learning (WIL) units (selected as part of a Minor).  
**Assumed knowledge:** This unit is not designed for first year students. It is recommended that you check WIL Community Blackboard site for information on enrolment pattern. If you are EN40 student you can only enrol after completing a minimum of 192 cp. **Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1, 2013 SEM-2 and 2013 SUM

**BEB702 WORK INTEGRATED LEARNING 2**

This unit aims to provide you with the opportunity to continue to learn in a work place environment. It will involve attendance, participation, observation, and reflection on activities negotiated with the work place supervisor. The emphasis of your critical reflection for this unit is to explicate the culture of the organisation you work for via the profile it presents to its employees, clients and the public and critique the role of an individual in a work place and how this relates to other employees in meeting the organisations aims and objectives.  
**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1 and 2013 SEM-2

**BEB703 WORK INTEGRATED LEARNING 3**

This unit will provide you with the opportunity to consolidate and extend your learning through a work placement and associated projects. It will involve some on-campus attendance at lectures and online tutorials as well as participation in, observation of, and reflection on activities undertaken during the work placement. The emphasis in the unit is on the critical reflection of academic learning and its application in practice. This is supported through an emphasis on the development of high order observation skills and critical reflection skills. The outcomes of your learning will be recorded in your e-portfolio. Most students undertaking this unit will do so as part of a WIL Minor.  
**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1 and 2013 SEM-2

**BEB704 WORK INTEGRATED LEARNING 4**

As with the previous WIL units, this unit involves participation in a work placement, associated projects and on-campus lectures and seminars to further extend and consolidate students’ learning and preparation for professional practice. The emphasis in this unit is on developing a broader appreciation of the issues impacting on industry, the nature of academic and practice knowledge and how they can be productively integrated to respond to
the needs of and the challenges facing professional practice. The unit also gives explicit attention to the continuing development of graduate capabilities including oral communications skills. This unit is normally undertaken as the last unit in the first WIL Minor.

**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1 and 2013 SEM-2

### BEB705 WORK INTEGRATED LEARNING 5

This unit is normally undertaken as the first unit of a second WIL Minor. While the first WIL Minor focuses on the participation of students in work in a more proactive and leading way thereby providing the opportunity for sophisticated, collaborative and reciprocal learning and outcomes for all concerned. In this context, this unit introduces students to the notion of practice-led research and research-led practice and provides them with the opportunity to use practice-based projects as vehicles for further developing discipline knowledge as well as advanced critical enquiry skills. In undertaking the unit, students will collaborate with a project supervisor and prepare an interim and final report and seminar on the project.

**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1 and 2013 SEM-2

### BEB706 WORK INTEGRATED LEARNING 6

This unit is normally undertaken as the first unit of a second WIL Minor. While the first WIL Minor focuses on the participation of students in work in a more proactive and leading way thereby providing the opportunity for sophisticated, collaborative and reciprocal learning and outcomes for all concerned. In this context, this unit introduces students to the notion of practice-led research and research-led practice and provides them with the opportunity to use practice-based projects as vehicles for further developing discipline knowledge as well as advanced critical enquiry skills. In undertaking the unit, students will collaborate with a project supervisor and prepare an interim and final report and seminar on the project.

**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1 and 2013 SEM-2

### BEB707 WORK INTEGRATED LEARNING 7

This unit is normally undertaken as the first unit of a second WIL Minor. While the first WIL Minor emphasises the context of practice and its relationship to academia, the second WIL Minor focuses on the participation of students in work in a more proactive and leading way thereby providing the opportunity for sophisticated, collaborative and reciprocal learning and outcomes for all concerned. In this context, this unit introduces students to the notion of practice-led research and research-led practice and provides them with the opportunity to use practice-based projects as vehicles for further developing discipline knowledge as well as advanced critical enquiry skills. In undertaking the unit, students will collaborate with a project supervisor and prepare an interim and final report and seminar on the project.

**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1
BEB902 GREENING THE BUILT ENVIRONMENT
THIS UNIT IS OFFERED IN EVEN-NUMBERED YEARS ONLY.
This unit presents the challenges and opportunities for built environment professionals to contribute to a sustainable society. It introduces a paradigm shift in environmental design from reducing negative environmental impacts to generating net positive impacts. It shows how, with a new approach to design, development can be a sustainability solution. Positive Development would increase overall social and natural capital beyond what existed on site before settlement. Building design principles and eco-technologies are surveyed that address sustainability issues at the level of buildings, building components and materials. In addition, green practitioners will explain how they have dealt with impediments to sustainable development in an evening lecture series.
Credit points: 12  Campus: Gardens Point

BEB903 GREENHOUSE SOLUTIONS
THIS UNIT IS OFFERED IN ODD-NUMBERED YEARS ONLY.
The unit aims to briefly introduce students to barriers facing the adoption of greenhouse abatement strategies and the methods by which these barriers can be overcome. Finally, the unit will describe how energy, transport and urban systems, like the climate system itself, have great inertia: they take decades to change. This means that in order to achieve significant reductions in greenhouse emissions, and to avoid the worst effects of climate change, early planning and action is critical for these systems.
Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-2

BEB904 ECO-INNOVATION FOR SUSTAINABILITY
THIS UNIT IS OFFERED IN EVEN-NUMBERED YEARS ONLY.
This is one of the units in a Minor in Sustainability designed to equip you to address fundamental social, ecological and economic challenges facing society using a systems design approach. This unit focuses on ‘eco-innovation’, which includes institutional, technological and spatial design solutions that increase the ecological base, human health, well-being and equity as well as reducing total resource consumption and waste. New strategies are explored which can help find leverage points where small actions or investments generate system-wide improvements.
Credit points: 12  Campus: Gardens Point

BSB119 GLOBAL BUSINESS
This unit examines the drivers of globalisation and the diversity of country markets at an introductory level. It develops the skills and understanding to identify and respond to the opportunities, challenges and risks of conducting business across politically, economically and culturally diverse environments. An authentic country feasibility study is undertaken to help identify where a firm can find opportunities both in terms of actual and potential markets and the location for value-adding activities. The unit aims for students to have developed a comprehension of the nature and role of globalisation and the drivers of international business, a knowledge of the competitive forces and challenges confronting all business as a consequence of globalisation processes and an awareness of the additional knowledge and skills required of management to operate business internationally across a diversity of environments.
Antirequisites: BSB116, BSB112, BSD119  Equivalents: BSX119, CTB119  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point and Caboolture  Teaching period: 2013 SEM-1, 2013 SEM-2 and 2013 SUM

DAB110 ARCHITECTURAL DESIGN 1
This unit offers a broad introduction to the field of design as applied to architecture. It uses developmental exercises to enhance student perceptions of the built environment in a problem based learning environment. Analysis of the constructed environment leads to a number of design projects that engage with issues of context, tectonics, planning, form, and spatial quality. Orthogonal drawing exercises, freehand sketching, presentation graphics and model making all form part of the unit content. Teaching and learning activities are spread across lectures, tutorials, and studio based activities.
Prerequisites: DEB103 or DLB103 or DNB101 or DTB101. DEB103 can be studied in the same teaching period as DAB110  Equivalents: ADB001  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

DAB210 ARCHITECTURAL DESIGN 2
This unit offers a focused introduction to the field of design through engagement with the explicit process of design as applied to architecture. It uses developmental exercises to enhance student perceptions of the built environment in a problem based learning environment. Architectural design as a manageable process in explored through a number of exercises and design projects. Discrete steps in the process of architectural design are made explicit through staged activities that build to a complete design project. Orthogonal drawing exercises, freehand sketching, presentation graphics, and model making all form part of the unit content. Teaching and learning activities are spread across lectures, tutorials, and studio based activities.
Prerequisites: DAB110 and (DEB203 or DLB210 or DNB201 or DTB201). DEB203 can be studied in the same teaching period as DAB210.  Equivalents: ADB002  Credit points: 12  Contact hours: 4 per week  Campus:
Gardens Point  Teaching period: 2013 SEM-2

DAB220 PLACEMAKING IN ARCHITECTURE
The unit aims to promote students' awareness of concepts of environmental psychology such as territory, community, privacy, personal space and spatial perception from a variety of cultural perspectives. It also includes an introduction to the ways in which architecture is practiced and the concept of professionalism as it pertains to architectural practice. Further the unit explores social and cultural relationships between people and the institutions of society through the study of introductory sociology, cultural analysis and political economy. Teaching and learning activities are spread across lectures, tutorials, and studio based activities.
Assumed knowledge: DEB103 is assumed knowledge
Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-2

DAB310 ARCHITECTURAL DESIGN 3
This intermediate level unit in architectural design uses developmental exercises to enhance student perceptions of the built environment in a problem based learning environment. Design problems of increased complexity are tackled through a process of abstraction, experimentation, representation, imagination, and testing. Advanced orthogonal drawing, freehand sketching, presentation graphics, documentation techniques, and model making all form part of the unit content. Teaching and learning activities are spread across lectures, tutorials, workshops and studio based activities.
Prerequisites: DAB210  Equivalents: ADB003  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

DAB325 ARCHITECTURE IN THE 20TH CENTURY
Designers in any discipline should possess the ability to appreciate the history of art, design and architecture. In addition, they should be able to analyse developments in design history from multiple perspectives. This unit is a survey course of the history and theory of architecture from the beginning of the 20th century to the present. Teaching and learning takes place through three forms of structured activity: lectures, tutorials, and online.
Assumed knowledge: DAB220 is assumed knowledge.
Equivalents: ADB011  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

DAB330 INTEGRATED TECHNOLOGIES 1
This is the first discipline-based unit in the Technology and Science design stream, through the introduction and application of the architectural principles for Environmental Design (including sustainability, lighting, and acoustics), Construction, and Structures. It introduces students to the basic technologies and sciences associated with architectural practice and in particular technical skills required for simple design projects.
Thermal characteristics of building materials, bioclimatic chart analysis, climate and climatic elements as environmental factors influencing architectural design, basic climatic regions and climate responsive building design, solar heating and cooling of buildings, thermal performance analysis, environmentally sustainable building materials, colour, natural and artificial lighting, ventilation, and condensation will be forming the Environmental Design topics.
Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

DAB410 ARCHITECTURAL DESIGN 4
This unit offers an intermediate level investigation into the field of design as applied to architecture. It uses developmental exercises to enhance student perceptions of the built environment in a problem based learning environment. Complex design problems deal with issues of social context, ethics, values, as well as the physical constraints of site, materials, climate, and technology. Design projects require the management of conflicting constraints to achieve optimal design proposals. Precedence, typologies, research and analysis, and representation techniques all form part of the unit content. Teaching and learning activities are spread across lectures, tutorials, and studio based activities.
Prerequisites: DAB310  Equivalents: ADB004  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-2

DAB420 ARCHITECTURE, CULTURE AND SPACE
Architecture is arguably a measure of a community's cultural mores; it reflects the attitudes, values and beliefs of its place, time and makers. This unit aims to promote awareness of how architecture is both a product and an emblem of socio-cultural conditions. In particular it explores the interdependency between how architecture is conceived and made, and the way people structure their worldview and organise their institutions in a range of cultural contexts and settings.
Assumed knowledge: DAB220 is assumed knowledge.
Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-2

DAB435 ARCHITECTURAL TECHNOLOGY 1
The unit will explore various forms of domestic construction with particular reference to general properties of building materials, common construction practices used in dwellings, single storey and class 10 buildings. Comparison of building systems and their effect on domestic building design will be explored in detail. Students will be introduced to the
construction aspects of the BCA including its housing provisions and associated codes for all types of buildings to assist to achieve the requirements for building approvals.

**Assumed knowledge:** DAB330 is assumed knowledge.

**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**DAB510 ARCHITECTURAL DESIGN 5**
This unit offers a focused intermediate level investigation into the field of design as applied to architecture. It uses developmental exercises to enhance student perceptions of the built environment in a problem based learning environment. A particular emphasis is placed on the introduction of knowledge and skills to design a technologically enhanced architectural space with the aid of digitally mediated tools and methods while design theory, sustainability, sociology, history and critique, as they all apply to architectural design, all form part of the unit content. Design projects require synthesis of a range of abstract issues to achieve focused architectural proposals. Teaching and learning activities are spread across lectures, tutorials, and studio based activities.

**Prerequisites:** DAB410  
**Equivalents:** ADB005  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**DAB610 ARCHITECTURAL DESIGN 6**
This unit will develop greater complexity in architectural design skills in an urban context with a focus on ethical and sustainable design solutions and practice. This requires the synthesis of issues, ideas, knowledge and techniques of architectural design as a holistic practice.

**Prerequisites:** DAB510  
**Equivalents:** ADB006  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**DEB100 DESIGN AND SUSTAINABILITY**
This unit, with its special focus on the role and impact of designers to shift society toward a more environmentally sustainable way of living, introduces you to essential academic and professional skills and practices for learning to become a designer.

**Antirequisites:** ENB100  
**Equivalents:** BEB100 and UDB100  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**DEB103 VISUALISATION 1**
Designers work in three dimensions and thus employ a variety of tools to think about and communicate three-dimensional ideas. This unit introduces you to the skills and techniques you’ll need to support this design visualisation with a focus on analogue media, drawing skills and simple model making. Some of them are common to all the disciplines in the course while others are specific to one or more disciplines of architecture, industrial design, interior design and landscape architecture.

**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**DEB202 INTRODUCING DESIGN HISTORY**
This unit encompasses a broad survey of the history of design from the civilizations of antiquity to the opening of the 20th century – including architecture, industrial design, interior design and landscape architecture. It is a first year foundation unit and serves as preparation for more detailed and specialized studies in history and theory in subsequent years. Key designs, ideas and artefacts and the aesthetic, environmental, technological, socio-cultural and political factors that related to their production will be analysed.

**Equivalents:** ADB931, DEB102  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**DEB203 VISUALISATION 2**
DEB103 Visualisation 1 introduced you to the skills and techniques needed to support design visualisation with a focus on analogue media and drawing skills. This unit continues that process and integrates digital and analogue approaches. Content will be divided between common and discipline specific techniques and traditions.

**Prerequisites:** DEB103  
**Equivalents:** DEB201  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**DLB130 LANDSCAPE DESIGN 1**
This unit is the first landscape design studio. It will begin your skill building in design processes and theory on which subsequent studios will build. It will focus on applying the representational techniques covered in the allied unit DEB103 Visualisation 1.

**Prerequisites:** DEB103 or DAB110 or DNB101 or DTB101.  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**DLB210 LANDSCAPE DESIGN 2**
This design studio introduces landscape design within the context of the urban environment. Basic design concepts such as space, effects and qualities are explored. It also introduces the use of plants as a design material. There is a concentration on communication and graphic skills in the development of a personal design process. These preliminary explorations provide a foundation for later design studios.

**Prerequisites:** DLB130 and (DEB203 or DAB210 or DNB201 or DTB201).  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2
DLB230 LANDSCAPE HORTICULTURE
This unit introduces the fundamentals of plant science, ecology and horticulture, especially within a local southeast Queensland context. This theoretical knowledge will be applied to a simple planting design project.
Equivalent: PSB442 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2013 SEM-2

DLB310 LANDSCAPE DESIGN 3
This unit introduces you to the theory behind spatial design and place-making. It also introduces design research and inquiry methods. In particular, it encourages you to examine the ways that people use, perceive and value places and environments. The unit teaches you to explore design research methodologies, and apply design skills to place-making.
Prerequisites: DLB210 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2013 SEM-1

DLB330 LANDSCAPE ECOLOGY
An understanding of physical geography, geomorphology and the theoretical concepts of landscape ecology as a spatial analysis and design tool underpin this unit. It concentrates on understanding spatial and functional heterogeneity in all landscapes from the 'natural' to the 'developed' by recognising that they share a similar structural and functional model. The unit comprises three content strands: (a) Landscape Structures; (b) Landscape Systems and Processes; and (c) Landscape Development. These theoretical concepts studied in each of these strands are applied in the analysis and redesign of a dynamic real world landscape.
Equivalent: PSP263 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2013 SEM-1

DLB410 LANDSCAPE DESIGN 4
In this unit, students will investigate an urban landscape in order to explore, understand and apply the principles and processes of site planning. These include: the development of a project brief, the understanding and articulation of site user needs, the undertaking of a site appraisal, the development and analysis of design concept options, and the final development of a site plan.
Prerequisites: DLB310 Equivalent: PSB441 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2013 SEM-2

DLB430 LANDSCAPE CONSTRUCTION 1
This studio is complementary to DLB410 Landscape Design 4. The core of landscape architecture is the design of controlled change to landscapes. Design implementation requires the re- construction of the existing landscape into new forms. Landscape Construction 1 continues the landscape design process at a finer scale of detail and precision to resolve site regrading, management of surface water and preparing sites for planting new landscapes. It is inextricably linked to the processes of maintenance and management and is therefore one of the core skills landscape architects apply in order to meet sustainability objectives. This unit will develop technical graphic skills associated with manual and digital design communication.
Equivalent: PSB434 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2013 SEM-2

DLB510 LANDSCAPE DESIGN 5
This design unit builds on Landscape Design 4 and extends the theoretical and applied understanding of site analysis, planning and design processes. It develops skills in the artful, orderly, efficient, aesthetic, and ecologically sensitive arrangement of constructed objects and spaces on a site and their integration with the site's features, systems, spirit of place and satisfying the needs and values of its intended users. Emphasis will be on the development of site specific design outcomes. Application of appropriate graphic communication in all forms will be integrated into the program. The unit will be block taught in the first part of the semester.
Prerequisites: DLB410 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2013 SEM-1

DLB525 HISTORY AND CRITICISM OF LANDSCAPE DESIGN
This unit examines landscape design throughout the ages, providing an historical context for exploring contemporary design approaches. The origins of the landscape architectural profession are also investigated. Incorporated into this landscape design focus will be an examination of past and contemporary design criticism and the role that landscape architects play in this regard.
Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2013 SEM-1

DLB530 LANDSCAPE CONSTRUCTION 2
This studio will build on the work of DLB510 Landscape Design 5. The unit introduces the properties and use of materials encountered in landscape construction and the processes of resolving and communicating design decisions as construction documentation. It includes principles of applied science and mechanics relating to the stability of site elements; graphic (manual and digital) skills required to explore construction problems and communicate required outcomes. It will require students to undertake effective research and evaluation of technical data and techniques available to the construction industry in seeking valid
DNB101 INDUSTRIAL DESIGN 1
Industrial design revolves around the creation of products that satisfy human needs within the constraints of industrial and commercial production. This involves the manipulation of form with an understanding of structure, function, and beauty. Through projects students will be exposed to: basic design elements and principles; introduction to product visualisation techniques including concept sketching and marker rendering; design process and concept development; basic model making techniques; design presentation.

Prerequisites: DEB103 or DAB110 or DDB130 or DTB101. DEB103 can be studied in the same teaching period as DNB101. Equivalents: ADB201 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2013 SEM-1

DNB201 INDUSTRIAL DESIGN 2
This unit continues with the development of visual and creative thinking within the context of industrial design with special emphasis on the development of product form. Through projects students will be exposed to: aesthetic aspects of products; design process and concept development; product visualisation techniques including concept sketching and marker rendering; model making and basic photographic documentation skills; design presentation.

Prerequisites: DNB101 and (DEB203 or DAB210 or DLB210 or DTB201). DEB203 can be studied in the same teaching period as DNB201. Equivalents: ADB202 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2013 SEM-1

DNB202 PRODUCT USABILITY
The professional designer designs principally for others and not primarily by personal preference. Therefore an understanding of the breadth of physical and cognitive needs and capabilities of people is vital to the development of useable products. This unit provides the basis for a user-centred design philosophy built upon an understanding of people and their capabilities and knowledge and experience to integrate advanced human factors and usability concepts into the industrial design process. The content covered in this unit includes: anthropometrics; principles of physical and cognitive ergonomic requirements of special needs groups; human error; usability principles; usability evaluation methods and user testing techniques.

Prerequisites: DNB101 Equivalents: ADB212 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2013 SEM-2

DNB301 INDUSTRIAL DESIGN 3
This unit offers creative opportunities to design and develop new and innovative products in the field of industrial design. It uses design research and methodologies to inspire innovative and sustainable practices both in the built and natural environments. Thorough user and context research, design development, brief development and existing market research lead to design projects that engage with issues of context, biomimicry, technology and design principle transfers from nature. Learning and teaching activities are spread across lectures, tutorials, workshops and studio based practices.

Prerequisites: DNB101 Equivalents: ADB203 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2013 SEM-1

DNB630 LANDSCAPE CONSTRUCTION 3
This unit will build on the work of previous design resolution units to take the student into the realm of construction of larger scale landscape elements. Topics include: the principles and practice of water sensitive urban design; design and construction of golf courses, swimming pools; and artificial lakes and earth dams; scope of contract documents; defining extent of works; set-out of works – horizontal and vertical; site clearing, demolition and environmental protection and noise control. The unit will also advance the principles and practice of contract documentation including writing contract and construction specifications.

Prerequisites: DNB530 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2013 SEM-2

DNB645 LANDSCAPE PRACTICE AND LAW
This unit develops understanding of government and non-government institutions that affect land and building development together with a more detailed understanding of specific legal and quasi-legal frameworks having influence on professional practice. Topics include: property with special reference to land ownership; land development applications under the Integrated Planning Act, tort, duty of care and the basis for professional liability; introduction to intellectual property; construction statutes, regulations, codes including the Building Code of Australia, standards and protocols, consultancy and construction contracts, and practice guides and law relating to practice.

Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2013 SEM-2
DNB302 COMPUTER AIDED INDUSTRIAL DESIGN
Once an Industrial Designer has completed the conceptual design stage of a project the details required for manufacture need to be resolved and prototypes made. It is at this stage that Computer Aided Design (CAD) is used. 3D CAD allows the details of the design to be resolved. Rapid prototypes can be made directly from the CAD data for design testing and verification. Modifications to the CAD data can be made quickly. Once the design is satisfactory, the 3D CAD models can then be used to generate photorealistic images and engineering drawings so that the new product can be manufactured.

Equivalents: ADB245  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

DNB303 MANUFACTURING TECHNOLOGY
Manufacturing technology is integral to industrial design and is a basic knowledge requirement to build upon throughout the course. Design for manufacturing allows both the analysis and application of manufacturing principles to product design and development. The knowledge gained in this unit allows the designer to develop a sound awareness of the relationship between design and manufacturing. The content covered in this unit includes: electronics; plastics; production techniques in relation to different materials; forming; finishing operations; production costs; technical documentation and communication.

Equivalents: ADB233  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

DNB401 INDUSTRIAL DESIGN 4
Industrial design advances design knowledge gained in DNB201 Industrial design 2. The unit introduces how various design processes interact, in complex problems such as sustainable transportation systems. Through collaborative projects students will be exposed to: design research; design innovation; communication skills; integration of design processes, manufacturing technologies and application transfer of design principle mechanisms to solve real world problems.

Prerequisites: DNB201  Equivalents: ADB204  Credit points: 12  Contact hours: 4  Campus: Gardens Point  Teaching period: 2013 SEM-2

DNB402 SOCIO-CULTURAL STUDIES
An understanding of people and their cognitive and emotive relationship with the world is essential for designing responsive products and environments. This unit encourages a diversity of knowledge to gain a broader perspective of culture, understand how issues of culture influence product design and the designer's interaction with society and diverse cultures. The content covered includes: theoretical perspectives of culture, psychological implications of everyday human-artefact interactivity, environmental and cultural perception, changing socio-cultural landscapes, ageing population, sustainability and globalisation, potential for design to advance social changes and quality of life, and psychological implications and attitudes imbedded in product semantics and symbols.

Credit points: 12  Contact hours: 3  Campus: Gardens Point  Teaching period: 2013 SEM-2

DNB501 INDUSTRIAL DESIGN 5
Experience design (or design for experience) is a design approach that aims to create appropriate experiences before, during and after product interaction. This unit introduces methods for enhancing the user experience. Through projects students will be exposed to:

• design process and creative thinking
• user-product interaction
• user research and context study
• design narratives
• design ethics and culture

Prerequisites: DNB301  Equivalents: ADB205  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

DNB502 INDUSTRIAL DESIGN HISTORY, THEORY AND CRITICISM
This unit provides students with the opportunity to become aware of theoretical and historical discourse in industrial design and to debate innovative and advanced ideas and critical thinking in the field internationally. It provides a framework in which students can locate their individual design activities. The content covered in this unit includes:

• contemporary history of industrial design
• relationship between social and technological change and industrial design
• contemporary design theory and discourse
• criticism methodology
• writing about design
• learning to critique design

Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

DNB601 INDUSTRIAL DESIGN 6
Design for experience focuses design intent not on products as an end in themselves but in the experiences of the people who use them. Going beyond this involves focusing on the emotional aspects of experience. Through projects students will be exposed to:

• design process and creative thinking
• interaction design
• socio-cultural trend analysis
• design narratives
• creativity and product innovation
• interdisciplinary teamwork
• design ethics and culture
Prerequisites: DNB401    Equivalents: ADB206    Credit points: 12    Contact hours: 4 per week    Campus: Gardens Point    Teaching period: 2013 SEM-2

DNB602 NEW PRODUCT DEVELOPMENT
The unit will focus on the introduction of new products into the market. It will provide the students with an overview of the relationship between product design and commercialisation. It will provide an overview of strategy development where the aim is to meet consumer expectations, whilst achieving corporate objectives. The major topics covered in this unit include:
- new product development process
- idea generation
- strategic planning
- introduction to marketing
- product screening and evaluation
- commercialisation and post launch review
Equivalents: ADB235    Credit points: 12    Contact hours: 3 per week    Campus: Gardens Point    Teaching period: 2013 SEM-2

DTB101 INTERIOR DESIGN 1
This unit provides foundational material for the study of interior design. Students will be introduced to design theory, methodology and aesthetics. Design will be explored as an interpretive process. Topics covered in the context of projects for the unit include: The studio as a way of learning; Introductory design exercises exploring two and three dimensional elements as they relate to the interior design context; Freehand sketching, principles of perspective; Mechanical drawing, principles of scaled drawing; Presentation and visual communication skills; Environmental issues and sustainability.
Prerequisites: DEB103 or DAB110 or DLB130 or DNB101. DEB103 can be studied in the same teaching period as DTB101    Equivalents: ADB101    Credit points: 12    Contact hours: 4 per week    Campus: Gardens Point    Teaching period: 2013 SEM-1

DTB201 INTERIOR DESIGN 2
This unit introduces the student to design in three dimensional spaces of relevance to the practice of interior design and with a particular emphasis on the socio-cultural relations between people and the environment. The unit aims to foster an understanding of design not only as a language of exploration and communication but also as an activity addressing person-environment interaction in a certain way. Topics covered in the context of projects for the unit include: Introduction to characteristics of design problems; Methods to generate and test design proposals; Creativity and innovation relative to contextuality; Presentation methods, techniques and materials used to generate and communicate design ideas; Relevant design history.
Prerequisites: DNB121 and (DEB203 or ADB210 or DAB210 or DAB201). DEB203 can be studied in the same teaching period as DTB201. Equivalents: ADB102    Credit points: 12    Contact hours: 4 per week    Campus: Gardens Point    Teaching period: 2013 SEM-2

DTB202 DESIGN TECHNOLOGY
In this unit students will acquire an understanding of the interconnection between technological changes, inventiveness, social context and interior design. Topics covered in this unit include: Interior design in relation to structural systems, materials, technologies and relevant legislation with specific emphasis on domestic building construction; Skills associated with observation, research, and communication; Ergonomic principles, sit measure, tracking examples of construction, identification of types of structures; Measurement and recording of building environments and documentation incorporating 2D CAD.
Equivalents: ADB122    Credit points: 12    Contact hours: 4 per week    Campus: Gardens Point    Teaching period: 2013 SEM-2

DTB301 INTERIOR DESIGN 3
The aim of this unit is to facilitate students to develop an applied understanding of transition, interiority and building character in relation to interior design. This will be achieved through the integration of technological, psychosocial and experiential knowledge and theory with applied design approaches. Student learning will be facilitated in an holistic approach to the design issues. Topics covered in the context of projects for the unit include: Design methodology, skills, strategies, alternative processes; Documentation ranging from the conceptual to design development; Finishes, fittings and furnishings; Relevant design history; Relevant technological, psycho-social and experiential theory; Environmental issues and sustainability.
Prerequisites: DTB201    Equivalents: ADB103    Credit points: 12    Contact hours: 4 per week    Campus: Gardens Point    Teaching period: 2013 SEM-1

DTB302 COLOUR STUDIES
This unit includes studies of the interdependence of light and colour, the physical properties of colour, the psychological and cultural dimensions of colour, and colour and its relationship with expression and aesthetics as it applies to the interior design context. Topics covered in this unit include: Colour properties, harmony and contrast; Mixing and application of colour; Qualitative effects of colour and light on interior form and space; Symbolic, physiological and psychological aspects of colour within historical and contemporary contexts.
Equivalents: ADB152    Credit points: 12    Contact hours: 3 per week    Campus: Gardens Point
DTB303 TECHNICAL DESIGN
In this unit students will acquire an understanding of the wide variety of commercial building interior systems related to the interior design industry. Topics covered in this unit include: Materials and tectonics, drafting conventions, technical site analysis and recording methods, introduction to ergonomics, codes and standards, introduction to commercial joinery and documentation techniques, and graphics and presentation approaches for communication. In addition 2D CAD skills will be introduced within this unit.
Prerequisites: DTB202 Equivalents: ADB123 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2013 SEM-1

DTB403 HUMAN ENVIRONMENT
This unit addresses political and social theories related to interior design and development within the built environment. Students are introduced to contemporary theories of post-industrialism, post-colonialism and multiculturalism. Topics covered in this unit include: Requirements of special needs groups; Psychosocial issues and privacy, perception, personal space, territoriality and way finding; The roles and responsibilities of design professionals, historically and in contemporary society; Cultural diversity.
Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2013 SEM-2

DTB501 INTERIOR DESIGN 5
This unit is structured to assist students understand varied approaches to design by choosing from a range of research-led themes that address more complex physical technical and cultural contexts. This approach ensures that an open, active and critical debate is sustained by the discipline on what constitutes interior design as an exploratory subject and creative endeavour, capable of revealing new intellectual and formal concepts. The content allows for new forms of knowledge and expertise to emerge through student projects.
Prerequisites: DTB401 Equivalents: ADB105 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2013 SEM-1

DTB502 ENVIRONMENTS IN TRANSITION
In this unit, the 19th century era will be used as a frame-of-reference for deconstructing both space and design artefact to understand the social and cross-cultural influences upon design production. Various theoretical perspectives and case studies will be used to explore this historical reference and further explore parallels with contemporary design practice. In addition, it will introduce how the cross-cultural migration of ideas and design approaches can be creatively translated and transformed to inform innovative design outcomes particular to the contemporary context.
Equivalents: ADP156 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2013 SEM-1

DTB601 INTERIOR DESIGN 6
The aim of this unit is to facilitate students develop a deep understanding of specialised interior design in relation to person-environment interactions. This unit specifically addresses issues relevant to the interior designer in practice. Students are provided with an opportunity to apply their developing skills and knowledge in an informed and critical manner. Topics covered in the context of projects for the unit include:
• Consideration away from main stream interior design application eg interior design for transportation systems
• Development of the characteristics to tackle ambiguous, ill-defined, ‘real-life’ simulated interior design problems
• Relevant design history
• Environmental issues and sustainability
• Relevant technological, psycho-social and experiential theory

Prerequisites: DTB501  
Equivalents: ADB106  
Credit points: 12  
Contact hours: 4 per week  
Campus: Gardens Point  
Teaching period: 2013 SEM-2

EDB602 DESIGN IN SOCIETY
This unit adopts a social science viewpoint in addressing social and cultural aspects of significance to interior designers. Some of these aspects include action and interaction, socialisation, ethnicity and race, control, and socio-cultural and indigenous issues of relevance to interior designers. Other topics covered in this unit include:
• Australia and the contemporary world
• Bureaucracy and organisations
• Mass media
• Technology
• Globalisation and regionalism

Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2013 SEM-2

EDB007 CULTURE STUDIES: INDIGENOUS EDUCATION
Numerous government reports and recent discussions about reconciliation have called for an increased commitment to Indigenous education in Australia. Teachers are increasingly being asked to improve their skill, knowledge and understanding to teach Indigenous students, and to teach curricula which incorporates Indigenous viewpoints on social, cultural and historical matters. This unit begins with an analysis of the students' own cultural place in the Australian context and afterwards moves towards an understanding of Aboriginal and Torres Strait Islander perspectives on history and contemporary issues, and an understanding of why Aboriginal and Torres Strait Islander students have been so disadvantaged by the Australian education system.

Credit points: 12  
Contact hours: 3 per week  
Campus: Internet, Kelvin Grove and Caboolture  
Teaching period: 2013 6TP4 and 2013 SEM-2

EDB038 INDIGENOUS AUSTRALIAN CULTURE STUDIES
This unit encourages an appreciation of the two distinct indigenous cultures of Australia and how external forces to Aboriginal and Torres Strait Islander cultures caused social, economic and political changes. It looks at traditional family life and organisation.

Credit points: 12  
Campus: Kelvin Grove

EDB039 INDIGENOUS POLITICS AND POLITICAL CULTURE
This unit examines issues and influences underlying the world of indigenous politics: political representation; land rights; health; education; community development; criminal justice; culture and heritage. This unit has an Australian focus with New Zealand and North American comparisons.

Credit points: 12  
Campus: Kelvin Grove

EDB040 INDIGENOUS KNOWLEDGE: RESEARCH ETHICS AND PROTOCOLS
This unit provides students with a critical examination of the major ethical and moral issues arising from the designing and conducting of research ‘on/in’ Australian Indigenous people/communities or issues. The unit examines the calls by Indigenous researchers for the decolonising of research methods - a process which critically examines the historical and philosophical bases of Western research and the frustrations of Indigenous researchers with various Western paradigms, academic traditions and methodologies.

Credit points: 12  
Campus: Kelvin Grove  
Teaching period: 2013 SEM-2

EDB041 INDIGENOUS AUSTRALIA: COUNTRY, KIN AND CULTURE
This unit aims to expand understanding of issues of importance to Indigenous people and to relate those issues to the practices in human service agencies. The Oodgeroo staff and leaders from the Indigenous community will work with staff from Social Work and Human Services in presenting this unit.

Antirequisites: SWB109  
Credit points: 12

EDN612 CONDUCTING INNOVATIVE EDUCATIONAL RESEARCH
The unit aims to enhance capacities for undertaking research in educational and other learning contexts that is innovative in both its focus and its approach. The unit engages students in a comprehensive examination of relevant research theory and practical application.

Prerequisites: EDN611  
Credit points: 12  
Campus: Internet and Kelvin Grove  
Teaching period: 2013 SEM-1 and 2013 SEM-2

ENB110 ENGINEERING STATICS AND MATERIALS
This unit introduces you to forces and moments between rigid bodies and to the properties of steel. This knowledge will help you to understand how major infrastructure systems (e.g. bridges, skyscrapers, roads, factories), mechanical systems (e.g. engines, turbines, pumps, vehicles), and electrical systems (e.g. power stations, transmission lines, motors) are designed and built. This unit is one of four first year units covering fundamental engineering principles that you will need in your profession.

Credit points: 12  
Contact hours: 4 per week  
Campus: Gardens Point  
Teaching period: 2013 SEM-1 and 2013 SEM-2
ENB120 ELECTRICAL ENERGY AND MEASUREMENTS
This unit introduces you to basic electrical circuit concepts. It requires you to perform circuit analysis, circuit synthesis, and the measurement and testing of relevant quantities within circuits.
Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2013 SEM-2 and 2013 SUM

ENB212 STRENGTH OF MATERIALS
This unit introduces the analysis of stress and strain in simple engineering components and systems such as uniaxial and bending stresses, deflection of beams, torsion, thin walled structures, combined loading, yield criteria, and introduces the finite element method (FEA).
Prerequisites: ENB110 or ENB101 and ENB104  Credit points: 12  Contact hours: 5 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

ENB221 FLUID MECHANICS
This unit introduces the basic concepts of fluid mechanics and applies them to some simple engineering problems.
Assumed knowledge: MAB126 or MAB180 or MAB131, and ENB101 or ENB110 are assumed knowledge.  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-2

ENB222 THERMODYNAMICS 1
Thermodynamic behaviour of substances; theory and application of the 1st and 2nd laws of thermodynamics; thermodynamic cycles, including gas cycles, vapour power cycles and refrigeration cycles; gas-vapour mixtures and the principles of air-conditioning; fuels and combustion.
Assumed knowledge: MAB127 or MAB182 or MAB132, and ENB130 or PCB136 are assumed knowledge.  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

ENB231 MATERIALS AND MANUFACTURING 1
Materials and their engineering applications, Manufacturing systems and technology, material properties and manufacturing, material selection, failure, graphical communication.
Assumed knowledge: ENB104 or ENB110 is assumed knowledge.  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

ENB240 INTRODUCTION TO ELECTRONICS
Module Electronics A provides a basic understanding of the characteristics and operation of discrete semiconductor components. Electronic circuit design is introduced with emphasis on the small signal low and high frequency response of those circuits. Module Digital Electronics gives students a good grounding in the basic principles of digital design, with particular regard to the fundamentals of digital number systems, Boolean algebra, combinational and sequential logic design.
Prerequisites: ENB103 or ENB120  Equivalents: EEB312  Credit points: 12  Contact hours: 5 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

ENB246 ENGINEERING PROBLEM SOLVING
This unit introduces students to the use of computers as tools for solving engineering problems. MATLAB is introduced as a numerical computing environment with the capacity to support complex mathematics and to be programmed to solve specific engineering problems. Stand alone application development using C++ is introduced as a means of exposing students to the high and low level computer programming concepts that are necessary to the implementation of engineering solutions in hardware specific programming environments.
Assumed knowledge: MAB126 or MAB180 or MAB131, and ENB103 or ENB120 is assumed knowledge.  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

ENB250 ELECTRICAL CIRCUITS
This unit introduces you to electrical circuit analysis. It shows how to determine the transient and steady state solution in single and three phase circuits as well as the interaction of fluxes and currents in transformers and electrical machines.
Prerequisites: ENB120  Antirequisites: ENB103  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

ENB270 ENGINEERING MECHANICS OF MATERIALS
This unit introduces calculating the stress produced in various members of a structural system due to the forces applied to them, and how to determine the design specifications (size and shape) of the members to withstand the forces to prevent the structural system failing.
Prerequisites: ENB101 or ENB110  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

ENB272 GEOTECHNICAL ENGINEERING 1
Soil mechanics is a part of geotechnical engineering, soil types, their description, classification and engineering properties. The unit includes the following: granular and cohesive soil classification systems; volume and mass components; density and air voids; determination of soil geostatic vertical pressures; pore water pressures and effective stress; permeability theory and fluid seepage in soil, with erosion and piping analysis; soil shear strength assessment and application to retaining wall lateral pressures; retaining wall design; slope stability analysis and
stabilisation. Computer simulation and analysis programs are used where appropriate.

**Assumed knowledge:** ENB102 or ENB270 are assumed knowledge  
**Equivalents:** CEB209, CEB232  
**Credit points:** 12  
**Contact hours:** 6 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

### ENB276 STRUCTURAL ENGINEERING 1

This unit includes the following: development of the method of moment distribution and its application in analysis of continuous beams and frames; theory of influence lines and its application to determine the effects of moving loads on beams and trusses; ‘pattern loading’ on frames and continuous beams; behaviour of reinforced concrete members; applications in the design of beams and columns.  

**Prerequisites:** ENB102 or ENB270  
**Assumed knowledge:** ENB273 and ENB271 is assumed knowledge.  
**Equivalents:** CEB215  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

### ENB280 HYDRAULIC ENGINEERING

This unit primarily provide a basic understanding of hydraulic (fluid) principles and an understanding of the use of these principles in engineering applications. The main topics to be covered are: Units and properties of fluids, Forces in static fluids, Buoyancy, Kinematics and continuity, The energy equation and the momentum equation; Similitude and dimensional analysis, Lift and drag, Frictional flow in pipes, Application of pipe resistance formulae, Fitting.  

**Assumed knowledge:** MAB126 or MAB180 or MAB131, and ENB101 or ENB110 are assumed knowledge  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

### ENB379 TRANSPORT ENGINEERING AND PLANNING APPLICATIONS

The environmental engineer must be familiar with the role of each transport mode in the overall transport task, along with current issues associated with each mode. This must be overarched by an understanding of the system for planning and management of transport projects and systems, particularly in context with economic, environmental and social attributes. This unit provides students who wish to pursue a career in environmental engineering with an understanding of these areas. The unit also includes case studies covering the environmental impacts for some of the urban and rural transport and infrastructure projects especially in the area of community consultation.  

**Assumed knowledge:** ENB274 and ENB372 are assumed knowledge.  
**Equivalents:** CEB419  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

### ENB441 APPLIED IMAGE PROCESSING

The aim of this unit is to introduce the fundamentals and applications of image processing to the students. The unit covers topics such as image acquisition, image representation, image enhancement, image segmentation, and image filtering. These topics will be introduced using a project based approach with applications to engineering practical problems.  

**Prerequisites:** ENB342  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

### ENB448 SIGNAL PROCESSING AND FILTERING

This unit gives a comprehensive introduction to the representation and processing of signals distorted or corrupted by noise, and the systems needed to process them. Techniques to enhance, detect, classify and estimate useful information from the signals in the presence of noise and other distortions will be presented. The methods presented will be tested on real signals drawn from different engineering applications, such speech signals, image signals, biomedical signals and signals in communications systems.  

**Prerequisites:** ENB342  
**Assumed knowledge:** MAB233 is assumed knowledge.  
**Equivalents:** EEB941  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

### ENB474 FINITE ELEMENT METHODS

The Finite Element Method (FEM) is 20th century's answer for treating complex problems, which had hitherto remained impossible to solve, in several areas of engineering such as structural, geotechnical, electrical, heat conduction, etc. The applications of this powerful computer based method has rapidly extended to cover several areas of engineering. In the structures area, the displacements and stresses in complex concrete connections, dams, deep beams with openings, shell structures, etc., can only be obtained by finite element analysis. Basic theory of FEM and its features such as engineering actions, modelling techniques, choice of elements, boundary conditions and input data will be covered in this unit. It aims in equipping engineers with skills to apply FEM effectively in structural, geotechnical and water engineering problems.  

**Prerequisites:** ENB475  
**Assumed knowledge:** ENB102 or ENB270 are assumed knowledge.  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

### KIB103 INTRODUCTION TO WEB DESIGN AND DEVELOPMENT

This unit provides an introduction to theories and skills underpinning the application of multimedia technology with the Creative Industries, providing a foundation of conceptual
and practical skills related to contemporary modes of electronic hypermedia production, communication and publishing.

**Antirequisites:** INB271, KIP403  **Equivalents:** KIB807, KKB007, KKB818  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Kelvin Grove  **Teaching period:** 2013 SEM-1

**MAB101 STATISTICAL DATA ANALYSIS 1**
The aim of this unit is to provide you with an essential grounding in statistical reasoning, and in basic methods for the analysis of data and interpretation of variation in all areas of modern science, social science, technology, industry and associated fields. The unit also provides you with key statistical knowledge to apply in many advanced units and projects which involve data and influences of random variation. Fundamental quantitative methods which inform and support statistical knowledge are also provided.

**Antirequisites:** BSB123, EFB101, MAB141, MAN101, MAB233  **Assumed knowledge:** Grade of at least Sound Achievement in Senior Mathematics B (or equivalent) or MAB105 is assumed knowledge.  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2013 SEM-1 and 2013 SEM-2

**MAB120 FOUNDATIONS OF CALCULUS AND ALGEBRA**
This unit introduces you to the fundamental mathematical ideas of functions, calculus, vectors and matrices, through the use of contextualized problems. In solving these problems you will develop both an understanding of the mathematical concepts and competency in appropriate solution methods.

**Antirequisites:** MAN120  **Equivalents:** MAB100, MAB125, MAB180  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2013 SEM-1, 2013 SEM-2 and 2013 SUM

**MAB126 MATHEMATICS FOR ENGINEERING 1**
Building upon the foundations established in MAB125 or Senior Maths C, this unit addresses the significant role of mathematical modelling using differential equations for the description and resolution of simple and complex problems relevant to the discipline of engineering. The formulation and solution of such problems is supported by appropriate advanced mathematical concepts used for function approximation, differentiation and integration. The unit is located in first year for application in core engineering units throughout the rest of the course. Undertaking this unit will allow you to develop your problem solving skills, especially in the context of mathematical techniques applied to ordinary differential equations used to model engineering relevant problems.

**Antirequisites:** MAN121  **Assumed knowledge:** Grade of at least Sound Achievement in Senior Mathematics C (or equivalent) or MAB125 or MAB180 or MAB120 is assumed knowledge  **Equivalents:** MAB111, MAB121, MAB131, MAB182  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2013 SEM-1, 2013 SEM-2 and 2013 SUM

**MAB210 PROBABILITY AND STOCHASTIC MODELLING 1**
This unit is intended for all mathematics degree students, all double degree students with mathematics, secondary education students with mathematics as a teaching area, and quantitatively-oriented students in other courses, particularly in Science, Information Technology, Engineering and areas of Business. The unit will provide you with fundamental skills and operational knowledge for all further study in statistics, and highly relevant foundations for other areas of mathematics such as mathematical modelling and operations research. The unit will also help you develop fundamental problem-solving skills in statistics and mathematics.

**Prerequisites:** MAB121 or MAB122. MAB121 or MAB122 can be studied in the same teaching period as MAB210

**Antirequisites:** MAN210  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2013 SEM-1 and 2013 SEM-2

**MAB314 PROBABILITY AND STOCHASTIC MODELLING 2**
This unit includes: models for stochastic processes and statistical methods, which have applications in engineering, information technology, finance, and physical and life sciences. Markov chains; random walks; branching processes; queueing processes; long-term behaviour of processes; use of generating functions; bivariate and conditional distributions; transformations of random variables; beta and gamma distributions; mixture distributions; order statistics, minimum and maximum.

**Prerequisites:** MAB122 and MAB210  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2013 SEM-1 and 2013 SEM-2

**MAB524 STATISTICAL INFERENCE**
This unit includes: maximum likelihood estimation, confidence intervals and hypothesis tests, introduction to Bayesian inference, prior and posterior distributions, Bayesian inference for binomial data, Poisson count data and normal data, simulation techniques for sampling from distributions. Use of software Matlab and R.

**Prerequisites:** MAB314  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2013 SEM-1

**MAB536 TIME SERIES ANALYSIS 1**
Data in business, economics, engineering and the natural sciences often occur in the form of time series. Time Series Analysis provides models and methods for the analysis of
such series of correlated observations. The ability to forecast optimally, to understand causal relationships between variables, and to analyse dynamic systems is of great practical importance. For example, optimal sales forecasts are needed for business planning, transfer function models are needed for improving the design and control of a process plant, and vector time series models are used to represent the relationships and interactions of macroeconomic variables in an economy. This unit is concerned with the building of time series models and the use of such models for practical applications such as optimal forecasting, simulation, causality analysis, and analysis of dynamic systems.

**Prerequisites:** MAB314 and MAB414

**Antirequisites:** MANS56, MABS26

**Credit points:** 12

**Contact hours:** 4 per week

**Campus:** Gardens Point

**Teaching period:** 2013 SEM-2

**MAB730 SURVEYING MATHEMATICS 2**

Surveying and mapping involve the collection, processing, analysis and presentation of data about the earth's features. Typically, the processing and analysis of this data is performed using computer technology. Thus, knowledge of analytical mathematics and the mathematical algorithms behind a range of computational processes is essential for the surveying professional. The aim of this unit is to extend your knowledge of analytical mathematics and to introduce you to the mathematical algorithms behind a range of computational processes and the basic programming skills needed to enable you to implement these algorithms.

**Prerequisites:** MAB100 or MAB120 or MAB125

**Antirequisites:** MAB220

**Credit points:** 12

**Contact hours:** 4 per week

**Campus:** Gardens Point

**Teaching period:** 2013 SEM-2

**MGB225 INTERCULTURAL COMMUNICATION AND NEGOTIATION SKILLS**

The course develops students' abilities to identify and resolve problems in cross-cultural communication or negotiation situations where cultural differences have created misunderstandings or undesirable or unexpected outcomes. It first explores the concept of 'national culture' by considering the work of major theorists of cultural value dimensions - from Hall to Schwartz. Students are encouraged to analyse communication/negotiation process issues in terms of these value dimensions and to practise managing the process of communication/negotiation to improve their outcomes.

**Prerequisites:** BSB115, CTB115, BSB119 or BSB124

**Antirequisites:** MGB312

**Equivalents:** IBB205, MGX225

**Credit points:** 12

**Contact hours:** 3

**Campus:** Gardens Point and Caboolture

**Teaching period:** 2013 SEM-1 and 2013 SEM-2

**PYB110 PSYCHOLOGICAL RESEARCH METHODS**

This unit includes the following: an overview of the purposes and strategies of research; elementary research design; operationalising variables; descriptive statistics; distributions; measures of central tendency and spread; standard scores and percentiles; understanding relationships between variables through correlation and regression; an introduction to hypothesis-testing procedures using t-tests.

**NOTE for Summer 2010 students:**

Teaching will not commence until January 2011.


Students should set aside the full 2 weeks + 1 day for the unit. Final exam will be on Friday 28 January.

**Credit points:** 12

**Contact hours:** 3 per week

**Campus:** Kelvin Grove

**Teaching period:** 2013 SUM-2 and 2013 SEM-2

**UDB100 URBAN DEVELOPMENT AND SUSTAINABILITY**

This unit introduces you to the essential professional skills and practises common to the fields and disciplines of urban development.

Through this unit you will have an opportunity to develop and demonstrate professional knowledge in your specialized area while also developing foundation academic and university skills that you will use to enhance and support your further studies. Concepts relating to professional practice, ethics, information management and sustainability will be addressed through-out the unit. Information from this unit will be consolidated in UDB200.

**Equivalents:** DEB100, ENB100

**Credit points:** 12

**Contact hours:** 3 per week

**Campus:** Gardens Point

**Teaching period:** 2013 SEM-1

**UDB101 STEWARDSHIP OF LAND**

This interdisciplinary unit will introduce students to the characteristics of land and land tenure with a focus on land use and property rights. The particular issues of native title, land contamination, heritage and alternative utility will be covered. Thereafter the property development process will be described in general terms and emphasis placed on the impact of environmental and social factors on the financial evaluation. The final component will cover the management of land, both urban and regional. Case studies will demonstrate the part that each discipline plays in the stewardship of land and its development.

**Equivalents:** CNB105

**Credit points:** 12

**Contact hours:** 3 per week

**Campus:** Gardens Point

**Teaching period:** 2013 SEM-1
UDB102 APPLIED LAW
Introduces the fundamental principles and practices of Australian governance as they affect the built environment professions. The relevance of government policies, laws and regulations and aspects of Tort, Contract and Land and Environmental laws applicable to the Development and Construction processes are examined in context.
Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2013 SEM-2

UDB104 URBAN DEVELOPMENT ECONOMICS
This unit will introduce microeconomic and macroeconomics concepts applied to urban and regional development. The unit will initially focus on demand, supply and determination of prices, and other important microeconomic concepts, at the level of an individual development. Here, the value of microeconomics in explaining aspects of development is demonstrated using local and national examples. In doing so, this unit will also help to deepen the appreciation of the key steps in development and the role of the main actors. Since anyone development project does not occur in a vacuum, the unit will then broaden to consider the impact of changes in the national and local economy on land use and development, including business cycle, monetary and fiscal policy.
Equivalents: BSB113, BSD113  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-2

UDB110 RESIDENTIAL CONSTRUCTION AND ENGINEERING
You learn to read plans and build a house by studying construction theory and legislation, visiting building sites, and sketching construction details. Focus on the four traditional methods of construction, brick veneer, cavity brick, block and timber, evolution of building, Building Code of Australia and Australian Standards; methods of construction; foundation and footings; linings; claddings; windows; doors; joinery; staircases; roof coverings; balanced cut and fill; services; retaining walls; acoustic and fire safety requirements; specifications for residential construction; protection to the public during construction; temporary support and demolition of structures; energy efficiency design; building defects and failures.
Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

UDB111 ENGINEERING CONSTRUCTION MATERIALS
The choice of material and the reliance on the material being “fit for purpose” is essential to the success of the building project. This unit provides you with an introduction to building materials. We will cover the structural and non structural materials used in the construction process and focus on the basic properties, construction applications, behaviour, strength, durability, suitability, and limitations.
Equivalents: CNB102  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

UDB112 PROFESSIONAL STUDIES 1
Assignment-based project orientated group work where you design and document a new dwelling preparing a full design of a single level brick-veneer type dwelling to a standard appropriate for building approval including architectural and structural design; construction materials; building services; statutory obligations and the building approval process; measuring and cost planning; contract administration; construction planning and site layout.
Prerequisites: UDB110  Equivalents: CNB109  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-2

UDB113 MEASUREMENT 1
This unit introduces the scope of the role of the quantity surveyor working independently and for contractors. It examines the tendering process and the bill of quantities; the Australian standard method of measurement (rules, taking-off methodology, mensuration and formulae); measurement of various work sections (finishes, roofing, partitions, woodworking, metalwork, painting, doors, windows, glazing, hardware, suspended ceilings and masonry).
Prerequisites: UDB110  Equivalents: CNB110  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-2

UDB140 PROPERTY VALUATION 1
This unit provides an introduction to property valuation fundamentals including value principles and concepts, market data and the methods of valuation, with particular focus on the valuation of residential property.
Equivalents: CNB194  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1 and 2013 SEM-2

UDB141 BUILDING STUDIES
You learn to read plans and build a house by studying construction theory and legislation, visiting building sites, and sketching construction details. Focus on the four traditional methods of construction, brick veneer, cavity brick, block and timber, evolution of building, Building Code of Australia and Australian Standards; methods of construction; foundation and footings; linings; claddings; windows; doors; joinery; staircases; roof coverings; balanced cut and fill; services; retaining walls; acoustic and fire safety requirements; specifications for residential construction; protection to the public during construction; temporary support and demolition of structures; energy efficiency design; building defects and failures.
Prerequisites: UDB110  Antirequisites: UD40MJR-
CONSMGT - Construction Management Major, UD40MJR-QUANSRV - Quantity Surveying Major  
**Equivalents:**  
CNB290  Credit points: 12  Contact hours: 4 per week  
Campus: Gardens Point  Teaching period: 2013 SEM-2

**UDB161 INTRODUCTION TO PLANNING AND DESIGN**
This unit introduces students to basic principles of planning and urban design. Students learn about urban design principles such as legibility, permeability, robustness and imageability of places. Students also investigate the planning issues facing cities and consider the complex problem-solving skills required to respond to these.  
**Credit points:** 12  **Contact hours:** 3 per week  
**Campus:** Gardens Point  **Teaching period:** 2013 SEM-1

**UDB162 HISTORY OF BUILT ENVIRONMENT**
This unit uses examples from the global development of human settlement to demonstrate the importance of interactions between the environment, society, and technology in shaping the built environment. Students will gain an appreciation of the important role played by history in forming the context for contemporary society, policy making, and design.  
**Credit points:** 12  **Contact hours:** 3 per week  
**Campus:** Gardens Point  **Teaching period:** 2013 SEM-1

**UDB163 LAND USE PLANNING**
The purpose of this unit is to examine the planning and management of public and private land. Unit topics include: different performance and prescriptive zoning methods; an overview of levels of planning agencies responsible for land use planning in Queensland; and the land development process and regulations that govern land use planning.  
**Credit points:** 12  **Contact hours:** 3 per week  
**Campus:** Gardens Point  **Teaching period:** 2013 SEM-2

**UDB164 POPULATION AND URBAN STUDIES**
This unit introduces the students to the demographic, economic, social and physical aspects of our cities to help understand the nature of cities we live in. The topics covered include: demographic and economic changes in cities, theoretical models of cities, issues such as social diversity, gentrification, masterplanned communities, and public spaces in cities.  
**Credit points:** 12  **Contact hours:** 3 per week  
**Campus:** Gardens Point  **Teaching period:** 2013 SEM-2

**UDB181 GEOSPATIAL POSITIONING AND GPS**
This unit will introduce students to skills and knowledge of spatial referencing, site measurement; use of maps and air photos. It will include introduction to map projections; concepts and theory of Global Positioning Systems; introduction to global and local coordinate systems; mission planning and data collection. The unit will highlight the importance of geospatial positioning applications in society.  
**Credit points:** 12  **Contact hours:** 3 per week  
**Campus:** Gardens Point  **Teaching period:** 2013 SEM-2

**UDB182 SURVEYING**
This unit provides a foundation in field instrumentation and survey computations: a framework for acquisition of a high level of knowledge and practical competence in plane survey computations; use of optical and electronic theodolites; EDM and total electronic station systems, and a focus on collection/presentation of pre-design contour and detail spatial information.  
**Equivalents:** PSB640  **Credit points:** 12  **Contact hours:** 5 per week  
**Campus:** Gardens Point  **Teaching period:** 2013 SEM-2

**UDB200 PROJECT PLANNING IN URBAN DEVELOPMENT**
This unit will enable you as a graduating Built Environment and Engineering professional to take active and positive steps to transform professional practice in ways that promote the sustainability of our planet, our economy and our society. As future professionals in the fields of Design, Urban Development and Engineering Systems, you will need to understand and apply the concepts of sustainability in your professional practice if we are to achieve sustainable development in the 21st Century.  
**Credit points:** 12  **Contact hours:** 3 per week  
**Campus:** Gardens Point  **Teaching period:** 2013 SEM-2

**UDB202 BUSINESS SKILLS**
This unit focuses on career preparation with a business orientation. Current popular business tools are assembled and critiqued. A sequential approach is used starting with characteristics of the Resume, business protocol and ethics, the business plan, assessing business risk and Professional Liability.  
**Equivalents:** CNB228  **Credit points:** 12  **Contact hours:** 3 per week  
**Campus:** Gardens Point  **Teaching period:** 2013 SEM-2

**UDB210 COMMERCIAL CONSTRUCTION AND ENGINEERING**
The aim of this unit is to provide you with extensive theoretical knowledge to manage and supervise the construction of (1) low rise residential apartment buildings (2) commercial buildings i.e. shops, offices; and (3) industrial buildings. Focus on legislative requirements; on-site inspections; site management techniques; temporary works & construction plant requirements, labour; In-ground construction; External treatments (cladding); formwork; bracing and stability; services co-ordination; Landscaping; . Environmental, building defects., disabled access; universal design; load-bearing masonry; services co-ordination; internal fit-out; tilt panel construction; portal/steel frames.  
**Prerequisites:** UDB110  **Equivalents:** CNB107  **Credit points:** 12  **Contact hours:** 3 per week  
**Campus:** Gardens Point  **Teaching period:** 2013 SEM-1
UDB212 MEASUREMENT 2
Measurement is a core skill among building professionals. This skill is particularly important in relation to the production of quantified documents for the purposes of tendering and estimating. This unit covers the following: measurement of various work sections (concrete, formwork, reinforcement, groundworks, underpinning, tanking, structural steelwork, exterior elements, and bored piers); and the development and application of builders' quantities. **Prerequisites:** UDB113  **Equivalents:** CNB204  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2013 SEM-1

UDB213 CONSTRUCTION ESTIMATING
Estimating techniques to quantify cost; Fundamental elements of cost and methods of evaluating labour, materials and equipment to realistic levels of accuracy; Unit rate approach to assessing the base estimate for major trades; Assessment of offers from sub-contractors and implications for tendering with respect to risk, quality and ethical responsibilities; Functional estimating and the significance of method, time and assembly of information to estimating; Review of an estimate, determination of profit; letters of offer; Subsequent negotiations prior to award of a contract; application of estimating to variations and profit monitoring; Linking best value procurement assessment to outcome performance indicators (including tender evaluation criteria).  **Prerequisites:** UDB110, UDB113  **Equivalents:** CNB305  **Credit points:** 12  **Contact hours:** 5 per week  **Campus:** Gardens Point  **Teaching period:** 2013 SEM-1

UDB214 PROFESSIONAL STUDIES 2
Assignment-based project orientated group work where you design and document a commercial development from a **project management perspective** considering constructability drawing on your skills in estimating; planning; scheduling; site organisation; environmental planning & sustainable urban development. Focus on special construction techniques; reuse of buildings and building materials; durability of materials, minimisation and disposal of construction waste; construction practice; planning and use of appropriate forms of construction for various building sizes and types; community negotiations; statutory responsibilities including access for people with a disability.  **Prerequisites:** UDB112 or BEB200 or ENB200  **Assumed knowledge:** UDB210 is assumed knowledge.  **Equivalents:** ENB274  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2013 SEM-2

UDB215 BUILDING SERVICES ENGINEERING
Fire Services: Fire detection, suppression and extinguishment; statutory requirements for maintenance of essential active fire services; Hydraulics Services: Building hydraulic services including water supply, fire protection and sanitary waste disposal systems. Mechanical Services: Air movement; Types of ventilation; Air-conditioning systems and heating; Installation procedures and the issue of confined spaces; Basis of design and effect of architectural style; Electrical Services: Transformers, sub-stations, switchboards, protection devices, lighting systems, stand-by generators, security systems; systems monitoring and energy management; vertical transportation systems. Energy Efficient Services: Examination of energy efficient design on services.  **Equivalents:** CNB203  **Credit points:** 12  **Contact hours:** 5 per week  **Campus:** Gardens Point  **Teaching period:** 2013 SEM-2

UDB216 THE ENVIRONMENT AND THE QUANTITY SURVEYOR
This unit will involve professional quantity surveying including image and status, fees, codes of ethics, professional competence and continuing professional development. In terms of employment, professional engagement in the workplace will be covered including terms of engagement, professional indemnity insurance, quality assurance and financial asset management. The work of quantity surveying takes place within a social and environmental context and this relates to the interactions between business and environmental interests including the natural environment, environment economics and ecologically sustainable development.  **Equivalents:** CNB209  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2013 SEM-1

UDB240 PLANNING THEORY AND PROCESSES
This unit is an introduction to the fundamental principles of urban planning control and regulation in Queensland. Property economists need to be aware of the history, development and current impact of planning regulation on property development and investment. This unit covers current development planning approval, assessments, conditions and appeals processes. Integration of economics, equity and social responsibility which include conservation and heritage protection and its impact on development and land are also discussed.  **Antirequisites:** UD40MJR-URBPLAN - Urban and Regional Planning Major  **Equivalents:** CNB295  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2013 SEM-1
UDB241 PROPERTY LAW 1
A practicing property professional requires an understanding of real property law in order to optimise the utility of property assets and therefore the value of property assets. This unit covers aspects of real property law which impact on professional property practice in Queensland.
Assumed knowledge: UDB102 is assumed knowledge.
Equivalents: CNB191  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

UDB242 PROPERTY VALUATION 2
An understanding of valuation methodologies relating to commercial property assessment is central to the work of any property professional. This unit develops an understanding of the various methodologies and the application of these valuation methodologies to practical scenarios. This unit also further develops an understanding of the various market sectors and how the market impacts on the value of a property asset.
Prerequisites: UDB140  Equivalents: CNB292  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

UDB243 PROPERTY ECONOMICS
The unit will relate macro and micro economics to the broad property markets. It will consider the practical impact of supply and demand factors on the different market sectors. The nature and complexities of property cycles are covered with specific reference to commercial and industrial property in Australia.
Prerequisites: UDB104  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

UDB244 PROPERTY LAW 2
A practicing property professional needs a good understanding of several areas of law as it applies to property transactions and property practice to be able to manage and avoid risk, identify legal issues as they arise and identify when specialised legal counsel is necessary. This unit focuses on extending and applying the theoretical knowledge obtained in UDB102 and UDB241 to explore how the common law and relevant legislation is applied to property practice and property transactions. The unit covers areas of torts law, contract, agency, consumer protection and dispute resolution as applicable to a practicing property professional in Queensland.
Assumed knowledge: UDB102 is assumed knowledge.
Equivalents: CNB193  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2013 SEM-2

UDB245 URBAN LAND STUDIES
The aim of the unit is to take the students’ fundamental knowledge of economic theory developed in earlier units and to apply that knowledge to the specific area of urban development. In particular we seek to develop in students an awareness of those economic imperatives which drive and shape urban form.
Prerequisites: UDB243  Equivalents: CNB291  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2013 SEM-2

UDB246 PROPERTY FEASIBILITY STUDIES
Property economists play an important role in advising on the investment worth of property. As such the unit introduces students to assessment of property as an investment asset taking into account financing and taxation arrangements in addition to risk and return measures.
Prerequisites: UDB242  Equivalents: CNB392  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2013 SEM-2

UDB247 PROPERTY VALUATION 3
It is part of the role of a Property Valuer to perform valuations for statutory purposes and to represent those valuations in the capacity of an expert witness. It is imperative that you have the necessary knowledge to undertake statutory valuations and have an understanding of the role of a Valuer as an expert witness. This unit will enhance the knowledge and skills you have developed in prior valuation units and apply this in the statutory and special use property valuation context.
Prerequisites: UDB241 and UDB242  Equivalents: CNB391  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2013 SEM-2

UDB266 PLANNING PROCESSES AND CONSULTATIONS
Students learn how land uses are generated and can be planned. They study the logic, role and methods of successive stages of planning processes including aims, information analysis and synthesis, evaluation, strategy development, monitoring and review. They learn how to consult widely in the community and with other professionals to develop and apply flexible and widely relevant planning processes.
Prerequisites: (UDB163 and UDB164) or ENB274 or DE40MJR-LNDARCH - Landscape Architecture Major  Equivalents: PSB433  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2013 SEM-1

UDB267 DEVELOPMENT ASSESSMENT AND INFRASTRUCTURE
The aim of this unit is to provide students with a grounding in the issues and skills related to the assessment of development applications and planning related to
infrastructure. The unit will be conducted in two sections. The first will introduce students to the relevant legislation, procedures, and techniques associated with development assessment. The second will give students an understanding of issues related to the provision and maintenance of technical and social infrastructure, with particular reference to the importance of sustainability and the emergence of new technology and systems.

**Prerequisites:** UDB163 or DE40MJR-LANDARC - Landscape Architecture Major  
**Equivalents:** PSB445

**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**UDB281 GEOGRAPHIC INFORMATION SYSTEMS**

This unit investigates the basic concepts of geographic information systems. Topics to be covered include components of GIS, spatial databases, data acquisition, reference frameworks, use of photographs and images, spatial analysis and graphic output design issues. The unit will highlight the importance of geographic information systems the unit will highlight the importance of geospatial positioning applications in society.

**Equivalents:** PSB631  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**UDB282 REMOTE SENSING**

This unit includes the following: history and principals of remote sensing; types of imagery, image interpretation, satellite systems; supervised and unsupervised image classification; interpretation, analysis and presentation of data; applications in the earth sciences.

**Equivalents:** PSB655  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**UDB283 SURVEYING COMPUTATIONS**

This unit includes the use of advanced scientific calculators and their application for geometric computations, solution of road and area problems, missing data closes, and simple curve problems. It offers solutions for more difficult problems including the three point problem, interrupted bases and various types of curve problems. It introduces spherical trigonometry, the solution of spherical triangles and the use of spherical trigonometry to determine position and direction on the Earth’s surface from observation to astronomical objects. Practical exercises determine position and direction.

**Prerequisites:** (MAB101 or MAB120) and UDB182  
**Equivalents:** DBB646  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**UDB284 ENGINEERING SURVEYING**

This unit includes: horizontal and vertical alignment for route surveys; areas, volumes and earthworks; surveying measurements and their assessment; propagation of variances; pre-analysis of survey tasks; least squares adjustment methods for various functional and stochastic models.

**Prerequisites:** MAB101, UDB182, and UDB283  
**Equivalents:** PSB641  
**Credit points:** 12  
**Contact hours:** 5 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**UDB285 CADASTRAL SURVEYING**

This unit includes land title systems, reinstatement: an explanation of the options of land title systems, with particular reference to Customary Land Tenure, Private Deeds registration, Public Deeds Registration, and Registration of Title. It includes an analysis of reinstatement of property boundaries as applicable to Queensland; the undertaking of a field survey to reinstate the boundaries of a section in the Brisbane Metropolitan area; preparation of cadastral and detail survey plans for survey actions; the legal aspects of re-instatement of boundaries; case law associated with re-instatement; statutory requirements that relate to the zoning and development of land.

**Prerequisites:** UDB182  
**Equivalents:** PSB620  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**UDB301 RESEARCH METHODS**

Research Methods will introduce students to the range of methods and techniques that may be utilised in examining questions related to professional practice. A comprehensive overview of research methods will be provided in order that students are able to contribute to research as a part of their professional practice, and to enable them to critically analyse research findings and publications.

**Prerequisites:** Completion of 216cp in UDB units  
**Equivalents:** CNB395  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**UDB302 DEVELOPMENT PROCESS**

This unit brings together concepts gained on strategic evaluation, risk, time management, organisational behaviour, planning, construction and development feasibility analysis. It places this knowledge in a total project context and provides you with an understanding of the processes involved in property development from conception to completion and beyond.

**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**UDB310 HIGHRISE CONSTRUCTION AND ENGINEERING**
Students learn how to construct a high rise structure from the basement to the roof. Focus on protection to the public during construction, temporary support; demolition; temporary services; deep excavation and foundations; retention and shoring systems; structural components; multilevel formwork; interaction of building components, systems and services; common building faults and failures and rectification; alternative forms of external cladding; waterproofing problems.

**Prerequisites:** UDB210  
**Equivalents:** CNB201  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**UDB312 CONTRACT ADMINISTRATION**
The administration of construction contracts represents one of the core applications for both construction managers and quantity surveyors. In order to appreciate some of the commercial implications of contract administration you will study administrative implications for both parties to the contract.

**Equivalents:** CNB302  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**UDB313 PROGRAMMING AND SCHEDULING**
This unit covers the following: Project time and resource planning techniques such as bar charts, critical path networks (precedence, time scales, and activity on arrows); Line of balance; Resource allocation and levelling; Schedule updates and progress control; Delays and claims analysis. Applications of computer-based project planning software will form an important part of the study in this unit.

**Equivalents:** CNB335  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**UDB314 STATUTORY CONSTRUCTION LAW**
Commercial Law. Sale of goods; Hire purchase; Trade practices; Negotiable instruments; Insurance law; Partnership law and company law; Bankruptcy and liquidation; Arbitration (the agreement, appointment of an arbitrator; Conduct of an arbitrator; Powers and duties; Enforcement of an award, costs; Alternative dispute resolution. Building Law; Study of the Building Code of Australia and Building Regulations, which control the design, construction of building works; emphasis on all building law; a study of the Acts Interpretation Act, Town Planning Acts; etc.

**Prerequisites:** UDB110, UDB210, UDB310, and UDB215  
**Equivalents:** CNB309  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**UDB315 MEASUREMENT 3**
Measurement is a core skill among building professionals. This skill is particularly important in relation to the production of quantified documents for the purposes of tendering and estimating. This unit covers measurement of building services (hydraulics, drainage, electrical and mechanical works).

**Prerequisites:** UDB212  
**Equivalents:** CNB310  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**UDB316 COST PLANNING AND CONTROL**
Interrelationship between construction industry and economy; Fundamental principles of cost management (design and construction cost planning and cost control); Nature and purpose of cost planning and cost control systems; Contract costing (historical accounting) and anticipatory (forecast final cost / value); Design economics, cost and value concepts, cost information systems, cost modelling, cost analyses, cost indices, cost data, cost implications of design variables; Life cycle costing and modelling including design knowledge in virtual environments; Value management, including energy efficiency in buildings, and value alignment process for project delivery; Asset management and building maintenance; Risk management in cost planning and cost control.

**Equivalents:** CNB307  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**UDB341 PROPERTY FINANCE**
Property is a major asset class of available investment options. Due to its distinct characteristics, debt and equity financing plays a major role in investment decisions. As such, the unit develops students’ understanding of property investment and financing techniques and the place of property assets within the capital markets.

**Prerequisites:** UDB242  
**Assumed knowledge:** UDB246  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**UDB344 PROPERTY AND ASSET MANAGEMENT**
With an increasing number of companies and institutions now leasing property rather than direct ownership, the management of these assets is becoming a crucial aspect of business practice. This unit will cover the physical and financial aspects of commercial, retail and industrial property management and the role of property as a strategic real estate asset. The area of Corporate Real estate and Asset management will also be covered in the unit.

**Prerequisites:** UDB242  
**Assumed knowledge:** UDB244  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2
UDB368 URBAN DESIGN
This studio unit develops skills in urban design analysis and intervention through the transformation of urban design theory into policies and design proposals. Students are introduced to the production of urban design instruments (such as strategies and frameworks) and effective communication of desired urban design outcomes. Where possible, students participate in live projects, with inputs from industry, government and communities.
Prerequisites: UDB265 Assumed knowledge: Basic skills in WLMM, Illustrator, SketchUp, Site Analysis is assumed knowledge Equivalents: PSB451 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2013 SEM-1

UDB369 NEGOTIATION AND CONFLICT RESOLUTION
This unit introduces planning students to the theory and practice of negotiation and conflict resolution. The aim is that students will develop their ability to change their perspective on conflict by seeing it as an inevitable and sometimes valuable part of planning. Students will learn to develop empathy for those they are in conflict with while also communicating their own needs assertively. Content includes key principles of conflict resolution, and practical mediation/negotiation techniques.
Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2013 SEM-1

UDB370 ENVIRONMENTAL PLANNING AND MANAGEMENT
This unit introduces environmental planning and management issues, policies, and methods relevant to your future practice as a planner, engineer, designer, or other built environment professional. As part of a multi-disciplinary team, you will participate in investigation of a contemporary case study, engaging in creative problem-solving and synthetic thinking incorporating skills and knowledge from prior units framed within new perspectives. By the end of the unit, you will have a firm grasp on a range of current environmental planning and management issues, and a framework for assimilating and addressing environmental policy in your future practice.
Equivalents: PSB462 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2013 SEM-1

UDB380 PHOTOGRAMMETRIC MAPPING
This unit will provide the student with a sound knowledge and understanding of image mapping principles (including photogrammetry) and processes as well as practical skills and understanding required to collect spatial information and to produce fundamental mapping products. In addition this unit will provide the skills and knowledge of the principles and characteristics of cartographic communication, surface modelling techniques and digital mapping.
Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2013 SEM-1

UDB382 PHOTOGRAMMETRIC MAPPING
This unit builds upon the Geospatial Mapping unit to provide the student with developed knowledge and understanding of photogrammetric mapping theory and processes including spatial geometry, mathematics and aerotriangulation. The unit will also provide the student with an integrated knowledge and understanding of map production principles and practice applied to photogrammetric outputs.
Prerequisites: UDB381 and UDB383 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2013 SEM-2

UDB384 GEODESY
This unit contains the following theory: concept and classification of geodesy, the basic concepts of Earth’s gravity field, level surfaces and plumb lines, heights, geoid, mean sea level, spherical harmonics etc, fundamentals of satellite geodesy, reference coordinate systems. It considers GPS positioning models and algorithms, software, GPS field observing, various GPS applications in geomatics; mapping terms and definitions; the mapping problem; principles for deriving projections; the use of skew graticules; the UTM system.
Prerequisites: UDB383 Equivalents: PSB643 Credit points: 12 Contact hours: 5 per week Campus: Gardens Point Teaching period: 2013 SEM-2

UDB385 CADAstral AND LAND MANAGEMENT
This unit introduces the student to the basic civil engineering design processes and procedures associated with the development of subdivided urban/rural land for residential, industrial or commercial purposes. The unit covers the following: subdivisional road design types, hierarchy, longitudinal and cross sections, earthworks;
stormwater design, basic urban hydrology, catchment properties, rational formula, pipe/gully parameters, pipe and open channel flows; water reticulation system features; sewer reticulation system features and basic design procedures. Modern trends in the above (including sustainability considerations) together with the general construction procedures and basic costings are introduced. 

**Prerequisites:** UDB310 or Admission into UDBXSMJ-CONSMGT  
**Equivalents:** CNB336  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**UDB387 SPATIAL AND LAND INFORMATION MANAGEMENT**
This unit provides you with an understanding of the spatial data infrastructure that will increasingly underpin decision making in diverse areas of development including resource management; urban and rural planning; cadastral administration and facilities management. The unit will provide an introduction to the concepts of a spatial data system planning overview, system implementation, and standards, legal issues, and knowledge-based techniques. 

**Prerequisites:** UDB281  
**Equivalents:** PSB612  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**UDB388 SPATIAL ANALYSIS PRACTICE**
This unit expands a student's knowledge in the field of spatial information science within the framework of a practical exercise focussing on advanced spatial analysis techniques. This approach facilitates exposure to and the incorporation of emerging processes of acquisition, validation, storage, extraction, analysis and presentation of spatial information. A geographic information system environment is utilised to provide a practical introduction to industry practices and client expectations. This unit will provide students with enhanced knowledge of the extent, theory and practice of spatial information science and an enhanced ability to define and solve problems associated with manipulation of spatial information systems to meet client expectations. 

**Prerequisites:** UDB281  
**Equivalents:** PSB654  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**UDB410 STRATEGIC CONSTRUCTION MANAGEMENT**
UDB410 is a capstone construction management unit bringing together all the skills you have learnt so far in your UD40 construction management course. Construction Managers require a strategic focus on site management, business and corporate responsibilities to manage time, cost, quality and safety on a construction project. UDB410 Construction Management is the last of a series of construction units UDB110, UDB210, UDB310 and consolidates skills students have learned throughout their degree to advance to a work-ready construction manager. 

**Prerequisites:** UDB310 or Admission into UDBXSMJ-CONSMGT  
**Equivalents:** CNB336  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2

**UDB471 URBAN PLANNING PRACTICE**
Students develop skills of interpretation and problem solving to plan the development of a locality or suburb with a population of up to fifteen thousand. Consulting with local governments, communities and stakeholders, and working in supervised multi-disciplinary teams, they produce a real-world local area plans, integrating a wide range of housing, access, work, play, community, cultural and environmental concerns. 

**Prerequisites:** UDB266  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**UDB475 REGIONAL AND METROPOLITAN POLICY**
Students learn to focus and apply material from a wide range of disciplines and locations to understand and develop current regional and metropolitan policy. Issues of global, national and state regionalism, demography, economics, human services, central place theory, regional resource evaluation and public administration are related to work in the Regional Planning Practice unit. 

**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**UDB483 GLOBAL POSITIONING PRINCIPLES AND PRACTICE**
This unit includes the following: GPS operation and navigation messages; GPS observable and error budget; differencing techniques; GPS positioning models and algorithms; software; GPS field observing; static, kinematic, RTK and various GPS applications in geomatics. It also includes a practical on the GPS network. 

**Prerequisites:** UDB383 and UDB384  
**Equivalents:** PSB644  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-1

**UDB484 TOPOGRAPHIC, HYDROGRAPHIC AND MINING SURVEYING**
This unit includes the following: field surveys for DTMs as-constructed surveys; associated specifications and standards; mining surveying for surface and below surface mining activities; Hydrographic surveying for exploration and port management. 

**Prerequisites:** UDB383  
**Equivalents:** PSB645  
**Credit points:** 12  
**Contact hours:** 5 per week  
**Campus:** Gardens Point  
**Teaching period:** 2013 SEM-2