Bachelor of Business / Bachelor of Engineering (IX28)

Year offered: 2010
Admissions: Yes
CRICOS code: 061649J
Course duration (full-time): 5 years (10 semesters)
Domestic fees (indicative): 2010: CSP $3,700 (indicative) per semester
International Fees (indicative): 2010: $11,250 (indicative) per semester
Domestic Entry: February
International Entry: February
QTAC code: 419532
Past rank cut-off: 79
Past OP cut-off: 11
OP Guarantee: Yes
Assumed knowledge: English (4, SA) and Maths B (4, SA)
Preparatory studies: For information on acquiring assumed knowledge visit http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp
Course coordinator: Dr R. Mahalinga-lyer (Engineering); Dr Erica French (Business)
Discipline coordinator: Dr Jasmine Banks (Engineering); Ms Ros Kent (Accountancy); Ms Gayle Kerr (Advertising); Dr Tommy Tang (Economics); Dr Anup Basu (Finance); Dr Robert Thompson (Human Resource Management); Mr Michael Cox (International Business); Dr Kavoos Mohannak (Management); Mr Bill Proud (Marketing); and Ms Amisha Mehta (Public Relations)
Campus: Gardens Point

Why choose this course?
Double Degrees are accelerated programs of study that enable a student to obtain two degrees in less time than it would take to obtain them sequentially. The Bachelor of Engineering/Electrical and Computer Eng/Bachelor of Business degree takes advantage of overlapping content and relationships between the two individual courses.

Recommended Study
Chemistry, Maths C and Physics are recommended.

Career Outcomes
Electrical and computer engineers design, install and maintain electrical, electronic, telecommunications and computing systems on behalf of governments and private companies. Graduates of the Bachelor of Business are skilled in many aspects of business including: accountancy, advertising, banking and finance, economics, electronic business, human resource management, international business, management, marketing and public relations.

Overview
Students combine engineering knowledge in electronics, computer systems, telecommunications and electric power with a business course majoring in one of accountancy, advertising, economics, finance, human resource management, international business, management, marketing or public relations.

Professional Recognition
This degree meets the requirements for membership of Engineers Australia.

Business component: Students may be eligible for membership to a number of professional bodies depending on choice of major and unit selection. Details on professional recognition can be found under the individual majors of the Bachelor of Business (BS05).

Special Course Requirements
A candidate for the degree of Bachelor of Engineering must obtain at least 60 days of industrial employment/practice in an engineering environment as part of the Work Integrated Learning unit, before graduating.

Course Design
Students are required to complete 480 credit points comprised of 288 credit points from the Bachelor of Engineering program and 192 credit points from the Bachelor of Business program. Students supplement the engineering component of this program with the 96 credit point Faculty Core units in the Bachelor of Business program together with a 96 credit point Major in one of the following: Accountancy, Advertising, Economics, Finance, Human Resource Management, International Business, Management, Marketing or Public Relations.

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

Deferment
All domestic applicants offered admission to undergraduate award courses may apply to defer commencement of their study. A deferment application will not normally be considered for courses where specific admission requirements apply, for example submission of folios or undertaking auditions. Applicants are not entitled to hold a deferred place and hold a place in another QUT course for the same period. Find out more on deferment.

Important Information
Faculty of Business rules and procedures are outlined in the Undergraduate Guidelines booklet. Other useful information can be found on Student Services website.

**Further Information**

Faculty of Built Environment and Engineering: Phone +61 7 3138 1993, Fax +61 7 3138 1516, email: bee.enquiries@qut.edu.au
Faculty of Business: Phone +61 7 3138 2050, Fax +61 7 3138 1055, email: bus@qut.edu.au

**Course structure - Civil Engineering - Students who commenced in 2010**

### Year 1, Semester 1
- ENB110  Engineering Statics and Materials
- MAB125  Foundations of Engineering Mathematics
  - OR
- MAB126  Mathematics for Engineering 1

### Year 1, Semester 2
- ENB130  Mechanical and Thermal Energy
- MAB126  Mathematics for Engineering 1
  - OR
- MAB127  Mathematics for Engineering 2

### Year 2, Semester 1
- ENB100  Introducing Professional Learning
- ENB120  Electrical Energy and Measurements
- ENB270  Engineering Mechanics of Materials
- ENB273  Civil Materials

### Year 2, Semester 2
- ENB150  Introducing Engineering Design
- ENB200  Introducing Sustainability

PLEASE NOTE: YEAR 3 ONWARDS CURRENTLY BEING REVISED. (Engineering content only.)

### Year 3, Semester 1
- ENB280  Hydraulic Engineering
  - Business Unit
- ENBXXX  TBA
  - Business Unit

### Year 3, Semester 2
- BEB701  Work Integrated Learning 1
- ENB272  Geotechnical Engineering 1
- ENB275  Project Engineering 1
- MAB233  Engineering Mathematics 3

### Year 4, Semester 1
- ENB276  Structural Engineering 1
- ENB371  Geotechnical Engineering 2
  - Business Unit

### Year 4, Semester 2
- ENB375  Structural Engineering 2
  - Business Unit

### Year 5, Semester 1
- BEB801  Project 1
- ENB372  Design and Planning of Highways
- ENB378  Water Engineering
  - Business Unit

### Year 5, Semester 2
- ENB376  Transport Engineering
- ENB471  Design of Concrete Structures and Foundations
  - Business Unit

**Course structure - Electrical Engineering - Students who commenced in 2010**

### Year 1, Semester 1
- ENB120  Electrical Energy and Measurements
- MAB125  Foundations of Engineering Mathematics
  - OR
- MAB126  Mathematics for Engineering 1
Course structure - Mechanical Engineering - Students who commenced in 2010

Year 1, Semester 1
- ENB110 Engineering Statics and Materials
- MAB125 Foundations of Engineering Mathematics
  OR
- MAB126 Mathematics for Engineering 1
- Business Unit
- Business Unit

Year 1, Semester 2
- ENB130 Mechanical and Thermal Energy
- MAB126 Mathematics for Engineering 1
  OR
- MAB127 Mathematics for Engineering 2
- Business Unit
- Business Unit

Year 2, Semester 1
- ENB100 Introducing Professional Learning
- ENB110 Engineering Statics and Materials
- ENB250 Electrical Circuits
- MAB127 Mathematics for Engineering 2
  OR
- MAB233 Engineering Mathematics 3

Year 2, Semester 2
- ENB150 Introducing Engineering Design
- ENB200 Introducing Sustainability
- Business Unit
- Business Unit

Year 3, Semester 1
- ENB240 Introduction To Electronics
- ENB246 Engineering Problem Solving
- Business Unit
- Business Unit

Year 3, Semester 2
- ENB242 Introduction To Telecommunications
- ENB243 Linear Circuits and Systems
- ENB244 Microprocessors and Digital Systems
- ENB245 Introduction To Design and Professional Practice

Year 4, Semester 1
- ENB301 Instrumentation and Control
- ENB340 Power Systems and Machines
  OR
- MAB233 Engineering Mathematics 3
- Business Unit
- Business Unit

Year 4, Semester 2
- ENB345 Advanced Design and Professional Practice
- Business Unit
- Business Unit
- Business Unit

Year 5, Semester 1
- BEB701 Work Integrated Learning 1
- BEB801 Project 1
- ENB340 Power Systems and Machines
  OR
  Electrical Engineering Selective
- Business Unit

Year 5, Semester 2
- BEB802 Project 2
- ENB344 Industrial Electronics
- Business Unit
- Business Unit

Electrical Engineering Selectives
- ENB448 Signal Processing and Filtering
- ENB452 Advanced Power Systems Analysis
- ENB453 Power Equipment and Utilisation
- ENB456 Energy
- ENB457 Controls, Systems and Applications
- ENB458 Modern Control Systems
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<tr>
<th>Year 2, Semester 1</th>
<th>Year 2, Semester 2</th>
<th>Year 3, Semester 1</th>
<th>Year 3, Semester 2</th>
<th>Year 4, Semester 1</th>
<th>Year 4, Semester 2</th>
<th>Year 5, Semester 1</th>
<th>Year 5, Semester 2</th>
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AYB225  Management Accounting

Year 3 Semester 1
AYB221  Computerised Accounting Systems
EFB210  Finance 1

Year 3 Semester 2
No Faculty of Business units studies this semester.

Year 4 Semester 1
AYB230  Corporations Law
AYB321  Strategic Management Accounting

Year 4 Semester 2
AYB219  Taxation Law
AYB301  Audit and Assurance
AYB340  Company Accounting

Year 5 Semester 1
BSB113  Economics

Year 5 Semester 2
AYB311  Financial Accounting Issues
BSB126  Marketing

Course structure - Advertising

Year 1 Semester 1
BSB113  Economics
BSB126  Marketing

Year 1 Semester 2
BSB110  Accounting
BSB115  Management

Year 2 Semester 1
No Faculty of Business units studies this semester.

Year 2 Semester 2
AMB220  Advertising Theory and Practice
BSB124  Working in Business

Year 3 Semester 1
AMB200  Consumer Behaviour
AMB201  Marketing and Audience Research

Year 3 Semester 2
No Faculty of Business units studies this semester.

Year 4 Semester 1
AMB318  Advertising Copywriting
AMB319  Media Planning

Year 4 Semester 2
AMB320  Advertising Management
AMB330  Advertising Planning Portfolio
BSB111  Business Law and Ethics

Year 5 Semester 1
AMB339  Advertising Campaigns

Year 5 Semester 2
BSB119  Global Business
BSB123  Data Analysis

Course structure - Economics

Year 1 Semester 1
BSB113  Economics
BSB115  Management

Year 1 Semester 2
BSB123  Data Analysis
BSB124  Working in Business

Year 2 Semester 1
No Faculty of Business units studies this semester.

Year 2 Semester 2
BSB110  Accounting
EFB223  Economics 2

Year 3 Semester 1
EFB330  Intermediate Macroeconomics
EFB331  Intermediate Microeconomics

Year 3 Semester 2
No Faculty of Business units studies this semester.

Year 4 Semester 1
EFB222  Quantitative Methods For Economics and Finance
Choice units or remaining Faculty Core Units

Year 4 Semester 2
BSB111 Business Law and Ethics

Choice units or remaining Faculty Core Units

Year 5 Semester 1
Choice units or remaining Faculty Core Units

Year 5 Semester 2
EFB338 Contemporary Application of Economic Theory

Choice Units

Choose any three of the following:
EFB332 Applied Behavioural Economics
EFB333 Introductory Econometrics
EFB334 Environmental Economics and Policy
EFB336 International Economics
EFB337 Game Theory and Applications

Important information:
Please note: BSB119 and BSB126 are the remaining Faculty Core Units to be completed. Please check unit availability when selecting Choice units.

Course structure - Finance

Year 1 Semester 1
BSB113 Economics
BSB115 Management

Year 1 Semester 2
BSB124 Working in Business
BSB126 Marketing

Year 2 Semester 1
No Faculty of Business units studies this semester.

Year 2 Semester 2
BSB110 Accounting
BSB123 Data Analysis

Year 3 Semester 1
EFB210 Finance I

Information for future students
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### Year 4 Semester 1
- MGB331 Learning and Development in Organisations
- MGB339 Performance and Reward

### Year 4 Semester 2
- BSB110 Accounting
- MGB201 Contemporary Employment Relations
- MGB320 Recruitment and Selection

### Year 5 Semester 1
- BSB126 Marketing

### Year 5 Semester 2
- BSB119 Global Business
- MGB340 International Business in the Asia-Pacific

### Course structure - International Business

#### Year 1 Semester 1
- BSB119 Global Business
- BSB126 Marketing

#### Year 1 Semester 2
- BSB110 Accounting
- BSB115 Management

#### Year 2 Semester 1
- No Faculty of Business units studies this semester.

#### Year 2 Semester 2
- BSB113 Economics
- BSB123 Data Analysis

#### Year 3 Semester 1
- AMB210 Importing and Exporting
- AYB227 International Accounting

#### Year 3 Semester 2
- No Faculty of Business units studies this semester.

#### Year 4 Semester 1
- AMB303 International Logistics
- MGB225 Intercultural Communication and Negotiation Skills

#### Year 4 Semester 2
- AMB336 International Marketing
- BSB111 Business Law and Ethics
- EFB240 Finance for International Business

#### Year 5 Semester 1
- AMB369 International Business Strategy

#### Year 5 Semester 2
- BSB124 Working in Business
- MGB340 International Business in the Asia-Pacific

### Course structure - Management

#### Year 1 Semester 1
- BSB113 Economics
- BSB115 Management

#### Year 1 Semester 2
- BSB124 Working in Business
- BSB126 Marketing

#### Year 2 Semester 1
- No Faculty of Business units studies this semester.

#### Year 2 Semester 2
- BSB110 Accounting
- BSB119 Global Business

#### Year 3 Semester 1
- BSB111 Business Law and Ethics
- MGB200 Leading Organisations

#### Year 3 Semester 2
- No Faculty of Business units studies this semester.

#### Year 4 Semester 1
- BSB123 Data Analysis
- MGB210 Managing Operations

#### Year 4 Semester 2
- MGB223 Entrepreneurship and Innovation
- MGB225 Intercultural Communication and Negotiation Skills
- MGB309 Strategic Management

#### Year 5 Semester 1
MGB324  Managing Business Growth

Year 5 Semester 2
MGB310  Sustainability in A Changing Environment
MGB335  Project Management

Course structure - Marketing

Year 1 Semester 1
BSB113  Economics
BSB126  Marketing

Year 1 Semester 2
BSB111  Business Law and Ethics
BSB115  Management

Year 2 Semester 1
No Faculty of Business units studies this semester.

Year 2 Semester 2
BSB110  Accounting
BSB115  Management

Year 3 Semester 1
AMB201  Marketing and Audience Research
AMB240  Marketing Planning and Management

Year 3 Semester 2
No Faculty of Business units studies this semester.

Year 4 Semester 1
AMB200  Consumer Behaviour
AMB340  Services Marketing

Year 4 Semester 2
AMB202  Integrated Marketing Communication
AMB335  E-marketing Strategies
BSB123  Data Analysis

Year 5 Semester 1
AMB336  International Marketing

Year 5 Semester 2
AMB359  Strategic Marketing
BSB119  Global Business

Course structure - Public Relations

Year 1 Semester 1
BSB119  Global Business
BSB126  Marketing

Year 1 Semester 2
BSB110  Accounting
BSB115  Management

Year 2 Semester 1
No Faculty of Business units studies this semester.

Year 2 Semester 2
AMB201  Marketing and Audience Research
BSB113  Economics

Year 3 Semester 1
AMB263  Introduction To Public Relations
AMB264  Public Relations Techniques

Year 3 Semester 2
No Faculty of Business units studies this semester.

Year 4 Semester 1
AMB372  Public Relations Planning
AMB373  Corporate Communication

Year 4 Semester 2
AMB374  Global Public Relations Cases
AMB375  Public Relations Management
BSB123  Data Analysis

Year 5 Semester 1
AMB379  Public Relations Campaigns

Year 5 Semester 2
BSB111  Business Law and Ethics
BSB124  Working in Business

Potential Careers:
Account Executive, Accountant, Actuary, Administrator, Advertising Professional, Banker, Banking and Finance Professional, Business Analyst, Certified Practicing Accountant, Corporate Secretary, Economist, Electrical and Computer Engineer, Electrical Engineer, Electronic Commerce Developer, Exchange Student, Financial Advisor/Analyst, Financial Project Manager, Funds

UNIT SYNOPSISES

**AMB200 CONSUMER BEHAVIOUR**
This unit provides students with the fundamental theories and models to develop a sound understanding of consumers, their needs, and behaviours. It provides a detailed examination of the consumer decision process and the internal and external influences on this core decision process. The unit also assists students in applying this knowledge to the development, implementation and evaluation of marketing activities within an organisation.

**Prerequisites:** BSB126, CTB126, BSB116, or BSB117
**Antirequisites:** MIB204
**Equivalents:** CTB200
**Credit points:** 12
**Contact hours:** 3 per week
**Campus:** Gardens Point
**Teaching period:** 2010 SEM-1, 2010 SEM-2 and 2010 SUM

**AMB201 MARKETING AND AUDIENCE RESEARCH**
This unit provides an introduction to the conduct and evaluation of marketing and audience research across the disciplines of advertising, marketing and public relations. Class members explore how field studies, survey and experimental research are employed to support advertising, marketing and public relations information needs. The unit provides an overview of research process, research design, methods of data collection and analysis, and the development of research proposals to support decision-making. Class members also explore issues related to research on media audiences, research ethics, and the management of client briefings.

**Prerequisites:** BSB126, CTB126, BSB116, or BSB117
**Antirequisites:** MIB305, MGB220, COB334
**Equivalents:**
**CTB201**
**Credit points:** 12
**Contact hours:** 3 per week
**Campus:** Gardens Point
**Teaching period:** 2010 SEM-1, 2010 SEM-2 and 2010 SUM

**AMB202 INTEGRATED MARKETING COMMUNICATION**
In past decades many organisations separated the different forms of marketing communication that convey their corporate and marketing messages. They developed separate plans for their advertising, public relations, direct marketing, personal selling and sales promotion with separate goals, objectives, strategies and budgets. Today many companies recognise the concept of integrated marketing communication which integrates these different functions along with other aspects of the marketing mix that communicate with stakeholders and customers. Integrated marketing communication requires a ‘total’ approach to planning marketing communication programs and coordinating communication strategies in support of overall brand and product/service marketing objectives.

**Prerequisites:** BSB126, CTB126, BSB116, or BSB117
**Antirequisites:** COB207, MIB309
**Credit points:** 12
**Contact hours:** 3 per week
**Campus:** Gardens Point
**Teaching period:** 2010 SEM-1 and 2010 SEM-2

**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.

This unit provides key information related to importing and exporting, uses industry perspectives on issues of current importance in international trade and provides a structured tutorial programme to achieve this.

**Prerequisites:** BSB119 or CTB119
**Equivalents:** IBB210
**Credit points:** 12
**Campus:** Gardens Point
**Teaching period:** 2010 SEM-1 and 2010 SEM-2

**AMB220 ADVERTISING THEORY AND PRACTICE**
This unit serves as an introduction to later units in the advertising major and gives learners an overview of the advertising industry and the management of the advertising function. The unit traverses the interrelationship of the institutions of advertising, the advertisers, the advertising agencies and the media. It introduces research and details methods of determining advertising objectives, budgets, establishing target audiences, interpreting audience ratings and circulation figures, and enables learners to gain a preliminary understanding of the creative functions of the advertising industry. It also shows the ethical and legal side of advertising and its important role in society and the economy.

**Prerequisites:** BSB126, CTB126, BSB116, or BSB117
**Antirequisites:** COB308
**Credit points:** 12
**Contact hours:** 3 per week
**Campus:** Gardens Point
**Teaching period:** 2010 SEM-1 and 2010 SEM-2

**AMB240 MARKETING PLANNING AND MANAGEMENT**
This unit extends the student’s knowledge of the fundamental marketing concepts and theories introduced in the Faculty Core unit in Marketing, by adding further breadth and depth of knowledge of marketing and developing skills in the application of this knowledge to marketing planning and management within the business environment.
Emphasis is on the role of the marketing manager at the product management level in undertaking analysis, planning, implementation and control of marketing activities. **Prerequisites:** BSB126 or CTB126 **Equivalents:** CTB240 **Credit points:** 12 **Contact hours:** 3 per week **Campus:** Gardens Point **Teaching period:** 2010 SEM-1 and 2010 SEM-2

**AMB263 INTRODUCTION TO PUBLIC RELATIONS**

This unit introduces students to the theory and practice of public relations, the discipline that deals with the creation, maintenance, and enhancement of relationships between organisations and their publics. Topics covered include publicity, events, and public opinion. This unit may be taken concurrently with AMB264 Public Relations Techniques especially by students undertaking a public relations major. However, it may also be taken by those students doing a public relations minor, or as a stand alone unit by those students in a wide variety of study disciplines who wish to understand more about this important area of business. **Prerequisites:** BSB126, CTB126, BSB116, or BSB117 **Equivalents:** AMB260 **Credit points:** 12 **Campus:** Gardens Point **Teaching period:** 2010 SEM-1 and 2010 SEM-2

**AMB264 PUBLIC RELATIONS TECHNIQUES**

This unit offers an introduction to the main tactics and techniques used in public relations. Topics covered include the development of message strategies as well as a specialised focus on the production of examples of a variety of written public relations genres such as brochures, speeches, and media releases. This unit may be taken concurrently with AMB263 Introduction to Public Relations especially by students undertaking a public relations major. However, it may also be taken by those students doing a public relations minor, or as a stand alone unit by those students in a wide variety of study disciplines who wish to improve and enhance their communication skills. **Prerequisites:** BSB126, CTB126, BSB116, or BSB117 **Antirequisites:** AMB261, AMB262 **Credit points:** 12 **Campus:** Gardens Point **Teaching period:** 2010 SEM-1 and 2010 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:** IBB303 **Credit points:** 12 **Campus:** Gardens Point **Teaching period:** 2010 SEM-1 and 2010 SEM-2

**AMB318 ADVERTISING COPYWRITING**

Prerequisites: AMB220 or COB308 **Equivalents:** AMB221 **Credit points:** 12 **Campus:** Gardens Point **Teaching period:** 2010 SEM-1 and 2010 SEM-2

**AMB319 MEDIA PLANNING**

Prerequisites: AMB220 **Equivalents:** AMB222 **Credit points:** 12 **Campus:** Gardens Point **Teaching period:** 2010 SEM-1 and 2010 SEM-2

**AMB320 ADVERTISING MANAGEMENT**

This unit takes the perspective of the Advertising Manager and addresses the use of research in developing, implementing, managing, and assessing a successful advertising campaign. In Advertising Management, learners use the case method of learning to examine the advertising process from its place in the marketing mix to the formulation of objectives, strategy and budget to the development of creative and media tactics and their ongoing evaluation. In addition, issues that impinge upon the advertising campaign management process such as legal and ethical issues, globalisation and the client-agency relationship are discussed. **Prerequisites:** (AMB318 or AMB221) and (AMB319 or AMB222) **Credit points:** 12 **Contact hours:** 3 per week **Campus:** Gardens Point **Teaching period:** 2010 SEM-1 and 2010 SEM-2

**AMB330 ADVERTISING PLANNING PORTFOLIO**

This advanced unit builds on the theoretical perspectives and applied skills introduced to students in copywriting, media and advertising management. It explores important issues such as the contribution of research to the creation of advertising; the hierarchical development of strategy from marketing and IMC strategy through to advertising, media and creative strategy; the role of the strategic planner in advertising; the use of planning to deliver more effective advertising solutions. Using problem-based learning, students establish benchmarks to evaluate advertising, develop advertising briefs and devise strategies for on-time and on-budget process management. **Prerequisites:** AMB318 or AMB221, and AMB319 or AMB222 **Credit points:** 12 **Contact hours:** 3 per week **Campus:** Gardens Point **Teaching period:** 2010 SEM-1 and 2010 SEM-2
AMB335 E-MARKETING STRATEGIES
Prerequisites: AMB240 or CTB240, and AMB201 or CTB201  
Equivalents: AMB241  
Credit points: 12  
Teaching period: 2010 SEM-1 and 2010 SEM-2

AMB336 INTERNATIONAL MARKETING
Prerequisites: AMB240, CTB240, AMB201, or IBB210  
Equivalents: IBB213  
Credit points: 12  
Campus: Gardens Point and Caboolture  
Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

AMB339 ADVERTISING CAMPAIGNS
Prerequisites: AMB320 and AMB330  
Equivalents: AMB321  
Credit points: 12  
Campus: Gardens Point  
Teaching period: 2010 SEM-1 and 2010 SEM-2

AMB340 SERVICES MARKETING
This unit explores the special characteristics of services that distinguish the marketing of services from goods. Topics include: the distinctive aspects of consumer decision-making relative to services and the implications for marketing strategy formation; the management of demand and supply; customer services and its influence on service satisfaction; service quality management and measurement; internationalisation of the service sector and distribution modes for services that reflect the significant impacts of new technologies on service delivery.  
Prerequisites: AMB240 or CTB240, and AMB201 or CTB201  
Antirequisites: MIB311  
Equivalents: CTB340  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2010 SEM-1 and 2010 SEM-2

AMB359 STRATEGIC MARKETING
Emphasis of the capstone Marketing unit is on the role of marketing manager at the corporate and strategic business unit/division levels. Students are exposed to a variety of strategic marketing techniques and issues, and learn how to apply these in corporate planning and management. Topics include: developing and critiquing strategic marketing planning models; recognising the importance of market focus; determining what marketing strategy can realistically be accomplished for a business; identifying underlying factors that must be considered in developing marketing strategy for a market-oriented organisation; discussing problems in successful implementation of marketing strategy; and organising for successful strategy implementation.  
Prerequisites: AMB340, and AMB335 or AMB241  
Equivalents: AMB341  
Credit points: 12  
Campus: Gardens Point and Caboolture  
Teaching period: 2010 SEM-1 and 2010 SEM-2

AMB369 INTERNATIONAL BUSINESS STRATEGY
‘This unit focuses on the definition and implementation of corporate strategy for worldwide operations. As the capstone unit in the International Business major, it is designed to build upon the knowledge base of previous units, introducing you to the strategic management of firms, and engage you in the strategic choices which international managers face in the international environment.’  
Prerequisites: AMB336, AMB303, IBB303, or IBB213  
Equivalents: IBB300  
Credit points: 12  
Campus: Gardens Point  
Teaching period: 2010 SEM-1 and 2010 SEM-2

AMB372 PUBLIC RELATIONS PLANNING
This unit introduces students to the public relations planning process. Students build skills in planning by analysing the components, execution and evaluation of contemporary public relations campaigns. The public relations planning process, partnered with theoretical concepts and ethical considerations, is examined across practice contexts and areas.  
Prerequisites: ((AMB263 or AMB260) and AMB264)) or (AMB261 and AMB262)  
Credit points: 12  
Campus: Gardens Point  
Teaching period: 2010 SEM-1 and 2010 SEM-2

AMB373 CORPORATE COMMUNICATION
Corporate Communication provides students with the opportunity to build on and apply their understanding of public relations to an in-house corporate role. Students gain an overview of an organisation relevant to the practice of public relations at a senior level in organisations by investigating internal communication processes, corporate reputation, corporate social responsibility, organisational culture and change and issues and crisis management.  
Prerequisites: (AMB263 or AMB260 and AMB264) or (AMB261 and AMB262)  
Equivalents: AMB360  
Credit points: 12  
Teaching period: 2010 SEM-1 and 2010 SEM-2

AMB374 GLOBAL PUBLIC RELATIONS CASES
Global Public Relations Cases will apply the theoretical underpinnings of generic practice to specialist areas. Exposure to real-world global situations and public relations responses will improve students' familiarity with the public relations discipline’s practice and strengthen students' decision-making and critical thinking skills.  
Prerequisites: AMB372, AMB261, or AMB262  
Equivalents: AMB370  
Credit points: 12  
Campus: Gardens Point  
Teaching period: 2010 SEM-1 and 2010 SEM-2

AMB375 PUBLIC RELATIONS MANAGEMENT
This unit develops student skills in the analysis of public relations public relations programs in line with corporate strategy, integrating long term planning with issue
assessment and response. Students extend analytical, interpretive and management skills in the public relations role.

Prerequisites: AMB372 and AMB373, or AMB360  Credit points: 12  Teaching period: 2010 SEM-1 and 2010 SEM-2

AYB221 COMPUTERISED ACCOUNTING SYSTEMS

This unit provides an examination of the concepts, processes and issues relevant to computerised accounting systems including: accounting information systems; internal controls; design and development of computerised accounting systems including general ledger and reporting cycle, revenue cycle, expenditure cycle and payroll cycle; computer fraud, security and crime; accessing accounting information; and accounting in an electronic environment. Practical application of these concepts is enhanced by the use of accounting software such as MYOB, spreadsheet software such as Excel, database software such as Access, and interactive multimedia software such as Accounting Information Systems Cycles.

Prerequisites: BSB110 or CTB110  Antirequisites: AYN443  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2010 SEM-1 and 2010 SEM-2

AYB200 FINANCIAL ACCOUNTING

Financial Accounting examines of the accounting concepts and procedures relevant to both partnership and corporate structures within the context of the accounting profession's conceptual framework and the relevant accounting standards and Corporations Law requirements. Topics include: the formation, operation, financial reporting and disclosure for both partnerships and companies; accounting for leases; and the professional role of accountants. The emphasis is on the effect of the different forms of ownership on the financial statements.

Prerequisites: BSB110 or CTB110  Equivalents: AMB361  Credit points: 12  Campus: Gardens Point  Teaching period: 2010 SEM-1 and 2010 SUM

AYB219 TAXATION LAW

This unit introduces students to the statutory framework of the Australian taxation system. Elements in the determination of taxable income and the levy of income tax are examined including general and specific categories of assessable income and allowable deductions, capital gains tax and administration aspects of the tax system. The taxation of fringe benefits is also examined. The unit concludes with a brief overview of the taxation of partnerships, trusts and companies and the goods and services tax. Emphasis is placed on developing students' skills in problem solving through research and analysis of taxation issues.

Prerequisites: BSB111 or CTB111  Antirequisites: LWB364  Equivalents: AYB325  Credit points: 12  Campus: Gardens Point  Teaching period: 2010 SEM-1 and 2010 SEM-2

AYB225 MANAGEMENT ACCOUNTING

This unit introduces students to accounting systems and techniques that provide management at all levels with information for use in planning, controlling and decision making. This can be contrasted with financial accounting, which provides summary financial information principally for external users (ie shareholders, creditors, banks, etc). Emphasis is placed on developing a range of accounting systems (in particular product costing) which may be used in manufacturing firms, although the principles and concepts used to develop such systems can be adapted to service organisations.

Prerequisites: BSB110 or CTB110  Credit points: 12  Campus: Gardens Point  Teaching period: 2010 SEM-1 and 2010 SEM-2

AYB227 INTERNATIONAL ACCOUNTING

International Accounting is designed to provide students with an insight into, and an appreciation of, many of the accounting problems and issues faced in an international business environment. Issues examined include: comparative international accounting systems and practices; cultural influences on accounting; international financial reporting issues such as international business combinations, intangibles, foreign currency transactions and translation, comparative international analysis of financial statements; and global accounting issues in the twenty-first century. The unit also examines the impact of international harmonization of accounting standards on multinational corporations and the investment communities worldwide.

Prerequisites: BSB110 or CTB110, and BSB119 or CTB119  Credit points: 12  Campus: Gardens Point  Teaching period: 2010 SEM-1

AYB230 CORPORATIONS LAW

The unit is intended to equip students with a basic understanding and knowledge relevant to the environment
of legal entities, particularly corporations. It also seeks to provide students with sufficient basic understanding of the legal structure of business associations to enable them to recognise the appropriate structure for particular commercial situations.

**Prerequisites:** BSB111 or CTB111  **Credit points:** 12

**Teaching period:** 2010 SEM-1 and 2010 SEM-2

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**AYB301 AUDIT AND ASSURANCE**

This unit enables students to comprehend the key concepts of auditing as a discipline, to demonstrate the relationship between auditing and the systems of accountability and to demonstrate the differences between manual and EDP audit processes. The unit builds on the knowledge of accounting and accounting standards acquired in prior units by enabling students to understand in detail the audit process (including professional auditing standards and techniques) which leads to the auditor providing an opinion on the financial reports of various types of entities. Ethics and auditor's liability are also covered.

**Prerequisites:** AYB221, and AYB340 or AYB220  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-1, 2010 SEM-2 and 2010 SUM

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**AYB311 FINANCIAL ACCOUNTING ISSUES**

This unit introduces students to the nature of accounting theory and integrates theory with practice to assist in the understanding of major Australian and International accounting issues. The following topics are addressed: positive and normative theories of accounting; the external reporting framework including international harmonisation and the conceptual framework; definition, recognition and measurement of assets, liabilities, equity, revenues and expenses; asset revaluations; intangibles; leases and employee entitlements. Accounting in specific industries such as construction, extractive industries and superannuation funds is also examined. This unit complies with the new international accounting standards. Contracting theory is used.

**Prerequisites:** AYB340 or AYB220  **Credit points:** 12  **Contact hours:** 3.5 per week  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-1 and 2010 SEM-2

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**AYB321 STRATEGIC MANAGEMENT ACCOUNTING**

Strategic management accounting develops a theory of organisations that provides an understanding of the information requirements of management to facilitate the strategic planning, decision-making and control necessary for the achievement of their objectives. Topics include: developing effective performance-evaluation systems and compensation plans; examining how managers can design organisations to motivate individuals to make choices that increase firm value; managing transfer-pricing disputes among divisions; developing an understanding of new management accounting practices, including activity-based costing (ABC), the balanced scorecard (BSC), and economic value added (EVA); and appreciating the research on the benefits and problems with ABC, BSC and EVA.

**Prerequisites:** AYB225  **Credit points:** 12

**Teaching period:** 2010 SEM-1 and 2010 SEM-2

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**AYB340 COMPANY ACCOUNTING**

This unit includes: the preparation of consolidated financial statements; an overview of the statutory requirements that dictate the format and content of published financial reports of companies; the requirements of the Corporations Act 2001 and the major disclosure orientated accounting standards; accounting for income tax; accounting for the acquisition of assets (including entities); accounting for investments in associates; accounting for foreign currency transactions arising from international trading and financing; and the translation of the results of foreign operations.

**Prerequisites:** AYB200 or AYB121  **Credit points:** 12

**Teaching period:** 2010 SEM-1 and 2010 SEM-2

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**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).

**Prerequisites:** 192cp of completed studies  **Credit points:** 12  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-1, 2010 SEM-2 and 2010 SUM

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**BEB801 PROJECT 1**

This unit is usually taken in the final year of study. Students complete an individual project involving the application of skills and knowledge attained during the earlier years of their degree program. For some students, this unit will be taken one of two 'project' units related to the same student project; in such cases this unit may be a pre-requisite or co-requisite to the second unit (or a follow-on from the first unit). The final 'deliverable' for this unit may vary for each discipline and details will be provided in lectures/tutorials and on the Blackboard website.
Equivalents: CEB411, CEB420, CNB434, EEB781-1, EEB889-1  
Credit points: 12  
Contact hours: 2 per week  
Campus: Gardens Point  
Teaching period: 2010 SEM-1 and 2010 SEM-2

BEBS02 PROJECT 2

This unit is usually taken in the final year of study, and is only taken by students completing a two project unit. Students complete an individual project involving the application of skills and knowledge attained during the earlier years of their degree program. This unit will be taken as the second of two ‘project’ units related to the same student project.

Equivalents: CEB415, EEB782-2, EEB889-2  
Credit points: 12  
Contact hours: 2  
Campus: Gardens Point  
Teaching period: 2010 SEM-1 and 2010 SEM-2

BSB110 ACCOUNTING

Accounting data is the basis for decision making in any organisation. Accordingly, the aim of this unit is to provide students with a basic level of knowledge of modern financial and managerial accounting theory and practice so that they can understand how accounting data is used to help make decisions in organisations. The unit covers financial procedures and reporting for business entities, analysis and interpretation of financial statements and planning, control and business decision making.

Antirequisites: BSD110, CNB293, UDB342  
Equivalents: CTB110  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point and Caboolture  
Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

BSB111 BUSINESS LAW AND ETHICS

This unit integrates the concepts and principles of business law with the theories and applications of business ethics. The unit makes extensive use of cases in law and ethics to develop knowledge and skills that enable students to analyse, apply and evaluate the legal principles and ethical decision-making processes relevant to modern business practice.

Antirequisites: AYB120  
Equivalents: CTB111  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point and Caboolture  
Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

BSB113 ECONOMICS

This unit introduces students to the key economic concepts and their practical applications. It comprises twelve topics each focusing on a current economic issue. Microeconomic topics include demand and supply, elasticity, production and cost theory and market structure. Macroeconomic topics include measuring GDP, inflation and unemployment, money and banking, and fiscal and monetary policy.

Antirequisites: BSD113  
Equivalents: CTB113  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point and Caboolture  
Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

BSB115 MANAGEMENT

The unit provides an introduction to the theories and practice of management and organisations. Emphasis is on the conceptual and people skills that are needed in all areas of management and in all areas of organisational life. The unit acknowledges that organisations exist in an increasingly international environment where the emphasis will be on knowledge, the ability to learn, to change and to innovate. Organisations are viewed from individual, group, corporate and external environmental perspectives.

Antirequisites: BSD115  
Equivalents: CTB115  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point and Caboolture  
Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

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  
Equivalents: CTB119  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point and Caboolture  
Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

BSB123 DATA ANALYSIS

The ability to collect, analyse, manipulate, understand and report data is an important skill in any work environment. This is particularly true in business where learning to deal with randomness, variation and uncertainty is a vital skill for anyone intending to apply their knowledge. This unit is designed to ensure that students gain the basic tools necessary to allow them to develop this skill. Students will also gain an introduction to many of the quantitative techniques which will be used throughout their further studies in their chosen discipline.

Antirequisites: BSB117, BSB122, CTB122, EFB101, MAB101, MAB141, MAB233  
Credit points: 12

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BSB124 WORKING IN BUSINESS
This unit will help you to kickstart your study and your career in business regardless of your specific discipline. Not only does "Working in Business" give you an understanding of where business has come from and where it is headed, but you will also gain insights into yourself and how you can develop as both a student and professional in the business world. It covers an overview of business, the important issues for working as a professional in an organisation, and also gives you the opportunity to reflect on your own skills, preferences and career options so you can plan a future that suits you.

Antirequisites: BSB114, CTB114, HHB113  Credit points: 12  Campus: Gardens Point and Caboolture  Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

BSB126 MARKETING
This introductory subject examines the role and importance of marketing to the contemporary organisation. Emphasis is placed on understanding the basic principles and practices of marketing such as the marketing concept, market segmentation, management information systems and consumer behaviour. The unit explores the various elements of the marketing mix, with special reference to product, price, distribution, and promotion, including advertising and public relations. By way of introduction only, key issues relating to services marketing, e-marketing and strategic marketing are also canvassed.

Antirequisites: BSB116  Equivalents: CTB126  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point and Caboolture  Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

EFB201 FINANCIAL MARKETS
This unit introduces students to the institutional structure of global financial markets, and thereby complements the understanding of theoretical finance gained in either BSB122 or EFB210. Topics covered include the functions of financial markets, the banking and payments system, financial system deregulation, non-bank financial institutions, stock exchange operations, debt markets, foreign exchange markets and markets for financial derivatives.

Prerequisites: BSB113 or CTB113  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2010 SEM-1 and 2010 SEM-2

EFB210 FINANCE 1
This unit covers the following topics: an introduction to the financial institutional framework; an introduction to debt and equity instruments; financial mathematics applied to the pricing of debt and equity securities; a firm's investment decision including Net Present Value (NPV) and Internal Rate of Return (IRR); introduction to risk and uncertainty using the Capital Asset Pricing Model (CAPM) and Weighted Average Cost of Capital (WACC) concept and risk management.

Prerequisites: BSB123 or BSB122 or MAB126 or (BSB110 and BSB113)  Antirequisites: EFB206  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

EFB222 QUANTITATIVE METHODS FOR ECONOMICS AND FINANCE

Prerequisites: BSB122 or CTB122, or BSB123 or MAB101 or MAB233  Antirequisites: EFB101  Credit points: 12  Teaching period: 2010 SEM-1 and 2010 SEM-2

EFB223 ECONOMICS 2
Consumer behaviour, the role of the government in market intervention, allocative efficiency and market structure are some of the fundamental issues in microeconomics addressed in this unit. Business cycles and the related issue of macroeconomic stabilisation policy are analysed and explained within the Australian context. The significance of the international economy is described through a discussion of foreign exchange markets, the Australian dollar and the terms of trade.

Prerequisites: BSB113 or CTB113  Equivalents: EFB102  Credit points: 12  Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

EFB240 FINANCE FOR INTERNATIONAL BUSINESS
In this unit students analyse the way international operations and performance of business can be put at risk by changing financial and regulatory conditions across borders and determine how best to manage the exposure to this risk. This unit examines the following: the evolution of the international financial system; the foreign exchange market; the types of foreign exchange rate exposures; managing exchange; translation and consolidation risks; assessing foreign direct investment targets; comparing the performance of foreign affiliates; operations exposure to regulatory risk of tax; investment and competition policy changes; country risk assessment and managing country risk exposure.

Prerequisites: (BSB119 or CTB119) or BSB116, and (BSB113 or CTB113) or (BSB122 or CTB122)  Antirequisites: EFB312, MIB202  Equivalents: IBB202  Credit points: 12  Campus: Gardens Point  Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

EFB307 FINANCE 2
This unit includes the following topics: the financing decision - capital structure, debt versus equity, lease versus debt,
term structure versus default structure of interest rates; the dividend decision - dividends versus capital gains, franked versus unfranked income; firm valuation; free cash flow model; evaluation of takeovers; Risk and Return - diversification, the CAPM model, its practical application and its relationship to efficient market hypothesis; introduction to forwards, futures, options, warrants, convertibles and risk management using financial derivatives.

Prerequisites: EFB210  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2010 SEM-1 and 2010 SEM-2

**EFB312 INTERNATIONAL FINANCE**

This unit examines the theory and practice of international finance, including the mechanics and uses of the spot, forward, swap, futures and options markets in foreign exchange; the relationship between domestic and international capital markets; interest rate and exchange rate determination; risk management of foreign exchange; international trade finance; evaluation of offshore investment.

Prerequisites: EFB210  Antirequisites: EFB212, IBB202, EFB240  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2010 SEM-1 and 2010 SEM-2

**EFB330 INTERMEDIATE MACROECONOMICS**

Prerequisites: EFB223 or EFB102  Equivalents: EFB202  Credit points: 12  Teaching period: 2010 SEM-1

**EFB331 INTERMEDIATE MICROECONOMICS**

Prerequisites: EFB223 or EFB102  Equivalents: EFB211  Credit points: 12  Teaching period: 2010 SEM-1

**EFB332 APPLIED BEHAVIOURAL ECONOMICS**

Prerequisites: EFB223 or EFB102  Credit points: 12  Teaching period: 2010 SEM-1

**EFB333 INTRODUCTORY ECONOMETRICS**

Economics and finance graduates require some knowledge of econometrics to assist them in the application and testing of behavioural models and to provide quantitative forecasts for informed decision making. This unit aims to provide an introduction to a range of econometric techniques appropriate for students studying economics and finance. The unit will provide an understanding of some core underlying theoretical issues essential for competent econometric modelling and then introduce students to a set of techniques tailored specifically to the needs of economics and finance students.

Prerequisites: EFB222 or EFB101  Antirequisites: EFB200  Credit points: 12  Teaching period: 2010 SEM-1

**EFB334 ENVIRONMENTAL ECONOMICS AND POLICY**

Prerequisites: EFB223 or EFB102  Credit points: 12  Teaching period: 2010 SEM-1

**EFB335 INVESTMENTS**

Prerequisites: EFB307  Antirequisites: EFB318  Credit points: 12  Campus: Gardens Point  Teaching period: 2010 SEM-1 and 2010 SEM-2

**EFB336 INTERNATIONAL ECONOMICS**

Prerequisites: EFB330 or EFB202, and EFB331 or EFB211  Antirequisites: EFB314  Credit points: 12  Campus: Gardens Point  Teaching period: 2010 SEM-2

**EFB337 GAME THEORY AND APPLICATIONS**

Prerequisites: EFB331 or EFB211  Credit points: 12  Teaching period: 2010 SEM-2

**EFB338 CONTEMPORARY APPLICATION OF ECONOMIC THEORY**

This capstone unit reinforces and extends the economic theory introduced to students in the major, and applies it to a number of topical issues that lend themselves to critical analysis using economic principles. Both macroeconomic and microeconomic theories are used with the emphasis placed on usefulness of the theory in development of a framework which assists with decision-making and informs critiques of public policy. Some of the perspectives taken in studying these topics will include: their impacts on efficiency and on specific economic agents and institutions; the role, if any, of government in their resolution; and the economic instruments available to analysts by which to frame their detailed consideration.

Prerequisites: EFB222 or EFB101, EFB223 or EFB102, EFB330 or EFB202, and EFB331 or EFB211  Equivalents: EFB329  Credit points: 12  Campus: Gardens Point  Teaching period: 2010 SEM-2

**EFB340 FINANCE CAPSTONE**

Prerequisites: EFB307 and EFB335. EFB335 can be enrolled in the same teaching period.  Credit points: 12  Campus: Gardens Point  Teaching period: 2010 SEM-1 and 2010 SEM-2

**ENB100 INTRODUCING PROFESSIONAL LEARNING**

This unit will introduce students to a range of skills and knowledge sets required to support professional practice in engineering disciplines. It will include information literacy and communication skills and knowledge development. In addition, the unit will provide orientation to engineering professions through an introduction to their history, their place in society, the importance of ethical conduct to their practice and to the particular qualities of professional knowledge especially with regard to practice knowledge.
The importance of integrated scholarship and collaborative links with other professions will be highlighted.

**Antirequisites**: DEB100 and UDB100  
**Credit points**: 12  
**Campus**: Gardens Point

**ENB110 ENGINEERING STATICS AND MATERIALS**  
**Credit points**: 12  
**Contact hours**: 4 per week  
**Campus**: Gardens Point  
**Teaching period**: 2010 SEM-1 and 2010 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**: 2010 SEM-1 and 2010 SUM

**ENB130 MECHANICAL AND THERMAL ENERGY**  
Engineers work with numerous kinds of systems where consideration must be given to the motion within, and associated energy of, the system. This unit introduces the student to the concepts of mechanical and thermal energy in the context of real engineering systems. The inter-relationships of between forces, motion and energy is described as related to the flow of energy within these engineering systems. After an introduction to engineering units, concepts and data, Newton’s first and second laws are used in the description of system motion and the concepts of force and energy, conservation of momentum and conservation of energy are introduced and described. Thermodynamic processes, certain thermo-physical parameters and the first and second law of thermodynamics are introduced and used to describe simple engineering systems. This is then expanded to include the generation and transport of energy through these systems in terms of convection, conduction and radiation heat transfer.  
**Equivalents**: PCB150  
**Credit points**: 12  
**Contact hours**: 4 per week  
**Campus**: Gardens Point  
**Teaching period**: 2010 SEM-2

**ENB150 INTRODUCING ENGINEERING DESIGN**  
**Assumed knowledge**: ENB110 is assumed knowledge.  
**Credit points**: 12  
**Contact hours**: 4 per week  
**Campus**: Gardens Point  
**Teaching period**: 2010 SEM-2

**ENB200 INTRODUCING SUSTAINABILITY**  
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  
**Campus**: Gardens Point

**ENB205 ELECTRICAL AND COMPUTER ENGINEERING**  
This unit introduces single and three phase power, electrical machines, principles of transformers, electronic circuits and sensors, filters, operational amplifier applications. It also covers computing fundamentals, programming in MATLAB and Excel using applications in electrical and computer engineering.  
**Prerequisites**: ENB120 or ENB103  
**Credit points**: 12  
**Contact hours**: 4 per week  
**Campus**: Gardens Point

**ENB211 DYNAMICS**  
Fundamental equations of particle kinetics; energy, power, impulse and momentum; kinematics of rigid bodies in plane motion, relative motion and motion relative to rotating axes; kinetics of rigid bodies. Basic machine components, (Gears, clutches, brakes etc.). Single degree of freedom system.  
**Prerequisites**: (MAB126 or MAB180 or MAB131) and (ENB130 or PCB136 or PCB150)  
**Assumed knowledge**: ENB110 or ENB101 are assumed knowledge.  
**Equivalents**: MMB112  
**Credit points**: 12  
**Contact hours**: 4 per week  
**Campus**: Gardens Point  
**Teaching period**: 2010 SEM-1

**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

**ENB215 FUNDAMENTALS OF MECHANICAL DESIGN**  
Basic procedures of design, design for sustainability, universal design, Concept development, creative problem solving, Basic component design, computational scheme in design, manufacture & materials.  
**Assumed knowledge**: MAB126 or MAB180 or MAB131, and ENB101 or ENB110, and ENB104 or ENB110 are assumed knowledge.  
**Equivalents**: MMB281  
**Credit points**: 12  
**Contact hours**: 5 per week  
**Campus**: Gardens Point  
**Teaching period**: 2010 SEM-2

**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

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**Information for future students**  
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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:** 2010 SEM-2

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:** 2010 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:** 2010 SEM-1

ENB242 INTRODUCTION TO TELECOMMUNICATIONS
Telecommunications systems and the principles underlying their operations are introduced starting from mathematical preliminaries such as the Fourier series and the Fourier transform. Analogue modulation techniques (AM and FM), systems and circuits for generation and demodulation, analogue to digital conversion, pulse modulation and baseband digital data communication techniques are studied using time and frequency domain analyses. **Prerequisites:** (ENB120 or ENB103) and (MAB126 or MAB110 or MAB111) **Equivalents:** EEB340 **Credit points:** 12 **Contact hours:** 3 per week **Campus:** Gardens Point **Teaching period:** 2010 SEM-1

ENB243 LINEAR CIRCUITS AND SYSTEMS
Network analysis; Laplace transform of signals and transfer functions of systems, time and frequency responses of linear circuits, feedback configurations and transfer functions, analyse and designing analogue systems using transistors and operational amplifiers, designing and synthesising analogue filters, signal conditioning. **Prerequisites:** ENB120 and MAB126 **Assumed knowledge:** ENB240 is assumed knowledge. **Credit points:** 12 **Contact hours:** 4 per week **Campus:** Gardens Point **Teaching period:** 2010 SEM-2

ENB244 MICROPROCESSORS AND DIGITAL SYSTEMS
This unit covers the basis for electronic circuit design in general but also in connection with microprocessor systems, theory and design of advanced embedded digital systems and practical implementation. The practical application of these circuits including interfacing and environment factors will be considered. **Prerequisites:** ENB240 **Assumed knowledge:** ENB246 or INB104 is assumed knowledge. **Credit points:** 12 **Contact hours:** 4 per week **Campus:** Gardens Point **Teaching period:** 2010 SEM-2

ENB245 INTRODUCTION TO DESIGN AND PROFESSIONAL PRACTICE
Introduction to general principles of electronic circuit and electrical equipment design and realisation; design and implementation of basic electronic circuits; experience in undertaking engineering projects, in report writing, and working in teams. The unit gives students the opportunity to apply their theoretical knowledge to real-life engineering problems. **Assumed knowledge:** ENB240 and ENB246 or INB104 is assumed knowledge. **Equivalents:** EEB584 **Credit points:** 12 **Contact hours:** 4 per week **Campus:** Gardens Point **Teaching period:** 2010 SEM-2

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:** 2010 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

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

ENB272 GEOTECHNICAL ENGINEERING 1
Soil mechanics is a part of geotechnical engineering, a field that deals with the behavior of soil, stone, and rock as a component of civil engineering works. 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  Credit points: 12  Contact hours: 6 per week  Campus: Gardens Point  Teaching period: 2010 SEM-1

ENB273 CIVIL MATERIALS
The unit provides students with a sound and practical approach to material properties and selection so that they may adapt to scientific and technological changes in the variety of products entering the market. They understand where the engineer fits in a quality assurance program and become aware of the numerous components of quality assurance and the costs generated by quality control and assurance. Students become aware of the effect of the working environment on different engineering materials. Among other things, they study the behaviour of concrete from the time it is manufactured to the end of its life, and develop knowledge of the parameters involved in manufacturing good concrete, and the consequences of delivering poor concrete.

Prerequisites: ENB270 or ENB102. ENB270 can be studied concurrently.  Credit points: 12  Contact hours: 5 per week  Campus: Gardens Point  Teaching period: 2010 SEM-1

ENB275 PROJECT ENGINEERING 1
The unit commences with the development of the construction techniques common to site investigation, earthworks, pile driving, deep foundations, reinforced and prestressed concrete and steel erection. This operational understanding is extended into a study of the practices used to estimate cost and to administer contracts, including planning and the legal implications of operating in a commercial environment. The unit concludes with the issues surrounding the uncertainty of weather and of operating in remote environs.

Assumed knowledge: ENB271 and ENB273 are assumed knowledge.  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2010 SEM-2

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.

Assumed knowledge: ENB102 or ENB270  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2010 SEM-2

ENB280 HYDRAULIC ENGINEERING
This unit primarily provides 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: 2010 SEM-2

ENB301 INSTRUMENTATION AND CONTROL
The unit introduces the student to classical control systems, analysis and synthesis, and implementation in an industrial control context. It introduces the principles of electrical measurements and instrumentation, sensors, PLC, DSC and industrial networks, and foundation of feedback control theory for engineers.

Assumed knowledge: ENB105 or ENB205 or ENB243 are assumed knowledge.  Credit points: 12  Contact hours: 5 per week  Campus: Gardens Point  Teaching period: 2010 SEM-1
ENB311 STRESS ANALYSIS
Further analysis of stress and strain; torsion of prismatic sections and thin-walled sections; axisymmetric problems; energy methods; thin plates. Introduction to FEA including the use of a FE software.
Prerequisites: ENB102 or ENB212
Equivalents: MMB212
Credit points: 12
Contact hours: 4 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1

ENB312 DYNAMICS OF MACHINERY
Kinematic and dynamic analysis of planar linkages and mechanisms; multi-degree of freedom systems with steady and transient vibrations, Introduction to noise.
Prerequisites: ENB211
Credit points: 12
Contact hours: 4 per week
Campus: Gardens Point
Teaching period: 2010 SEM-2

ENB313 AUTOMATIC CONTROL
This unit introduces you to the theory and practice of control systems engineering. The unit introduces system modelling principles for mechanical, electrical and electromechanical systems, using the Laplace transform to build transfer-function models of system components. The unit emphasizes the practical application of control theory to the analysis and design of feedback systems to ensure stability, reduce steady state errors and improve transient response.
Prerequisites: ENB211
Antirequisites: ENB301
Assumed knowledge: ENB312 is assumed knowledge.
Credit points: 12
Contact hours: 5 per week
Campus: Gardens Point

ENB314 INDUSTRIAL NOISE AND VIBRATION
The unit is about the study of noise and vibration measurement and control which is experienced in industry. It includes a basic understanding of the theories and capable of modelling and predicting noise and vibration in an industrial environment. This unit will provide you with sufficient experience in instrumentation and measurement of noise and vibration and to apply them in industry.
Prerequisites: ENB312
Assumed knowledge: MAB127 or MAB132 or MAB182 are assumed knowledge.
Credit points: 12
Contact hours: 4 per week
Campus: Gardens Point
Teaching period: 2010 SEM-2

ENB316 DESIGN OF MACHINE ELEMENTS
Analysis of operating conditions and their impact on design solutions, design of fasteners, shafts and other mechanical components, design of springs. Design for manufacturability, fundamentals of lubrication, computer aided design (solid modelling), frames and housings.
Prerequisites: ENB215
Equivalents: MMB381
Credit points: 12
Contact hours: 6 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1

ENB317 DESIGN AND MAINTENANCE OF MACHINERY
Design of equipment for special applications such as pressure vessel, food processing, Design of machine system, Optimisation of design, machinery failure, prediction, analysis and prevention. Design for reliability application of FMEA, Condition monitoring, ethics, Fundamentals of friction, wear related to design, Failure analysis & OH&S.
Prerequisites: ENB316
Equivalents: MMB382
Credit points: 12
Contact hours: 4 per week
Campus: Gardens Point
Teaching period: 2010 SEM-2

ENB321 FLUIDS DYNAMICS
Hydraulic and pneumatic systems; design, analysis and performance of pumps, turbines and fluid couplings; unsteady pipe flow; flow around solid bodies, including potential flow and boundary layers; compressible flow and shock waves.
Prerequisites: ENB201 or ENB221
Equivalents: MMB352
Credit points: 12
Contact hours: 4 per week
Campus: Gardens Point
Teaching period: 2010 SEM-2

ENB331 MATERIALS AND MANUFACTURING 2
ENB331 is a third year unit which extends the formative body of knowledge gained in ENB231 and introduces the shear deformation mechanisms of engineering material and how these properties can be used to understand the mechanics of metal cutting. Descriptive and analytical information about different material removal processes is provided to the student through lectures, tutorials and case studies. The unit also provides the student with an excellent opportunity to apply the knowledge in the design and manufacture of a component.
Prerequisites: ENB231
Credit points: 12
Contact hours: 4 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1

ENB333 OPERATIONS MANAGEMENT
This unit develops students' ability in applying quantitative techniques in solving different types of industrial operations problems. Topics include: product mix, assignment and transportation models; location and layout decisions, job design analysis; project planning; quality control and the use of simulation in operations management.
Equivalents: MMB476
Credit points: 12
Contact hours: 4 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1

ENB336 INDUSTRIAL ENGINEERING
Aim of this unit is to develop skills and understanding the concepts and techniques of lean manufacturing (methods engineering). These includes identifying wastes using Value Stream Mapping (VSM), 5S, SMED, JIT, plant layout, cell design with proper material handling and balance and job design with due consideration to ergonomics.
Assumed knowledge: MAB233 is assumed knowledge.
Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2010 SEM-2

ENB340 POWER SYSTEMS AND MACHINES
This is a core unit that develops the basic topics essential for an electrical engineer working in areas that include the resources sector, the process industries, electrical power utilisation, electric power generators as well the electricity supply industry. Topics covered in machines include magnetic circuits, single phase and three phase transformers; electric machines including electromechanical energy conversion, reluctance motors, induction motors, synchronous machines, D.C. machines, stepper motors, P.C. motors; motor control; heating, cooling and rating. Power system topics include power generation and energy sources, electricity market operation, fault calculations, basic protection and power system operation, in particular real and reactive power control.
Prerequisites: ENB103 or ENB250  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2010 SEM-1

ENB344 INDUSTRIAL ELECTRONICS
The unit gives a basic understanding of linear and switching applications in industrial electronics. Practical knowledge associated with interfacing and design is developed. Students will also study the theory and design of advanced digital embedded systems as well as the practicalities associated with implementation. It also covers power rectification, controlled rectification, inverters, AC and DC drives, uninterruptible power supplies and power switching components.
Prerequisites: ENB240  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2010 SEM-2

ENB345 ADVANCED DESIGN AND PROFESSIONAL PRACTICE
Detailed design and realisation of typical electronic subsystems used in all areas of electrical and electronic systems engineering. The unit enhances the student’s ability in solving complex engineering problems. The design builds on the theoretical knowledge gained in other units. The student is required to write a detailed technical report and also give an oral presentation on her/his design.
Prerequisites: ENB245  Equivalents: EEB684  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2010 SEM-2

ENB371 GEOTECHNICAL ENGINEERING 2
This unit includes: further study on the behaviour of soil and rocks; determination of subsurface pressures from surface loadings; soil settlement including time related clay consolidation settlement and immediate settlements on sand and clay as related to shallow foundations; assessment of bearing capacity and allowable bearing pressures under shallow foundations; pile foundation systems and analysis for capacity and settlement; rock mass behaviour, classification and joint shear strength applied to slope stability assessment and stabilisation measures.
Prerequisites: ENB272  Equivalents: CEB322  Credit points: 12  Contact hours: 5 per week  Campus: Gardens Point  Teaching period: 2010 SEM-2

ENB372 DESIGN AND PLANNING OF HIGHWAYS
Civil engineers as professionals are responsible for the delivery of major transport infrastructure items through the stages of inception, planning, design, development, maintenance and management. The purpose of such projects is to improve the quality of life of the community by offering safe and efficient access to activity locations and mobility between locations. In delivering such infrastructure it is imperative that social, economic, and environmental impacts and benefits are considered and addressed. This unit offers students an opportunity to explore the role of the civil engineer in the preparation of a feasibility design study for a road as a major transport infrastructure item.
Assumed knowledge: ENB271 and ENB274 are assumed knowledge.  Equivalents: CEB317  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2010 SEM-1

ENB375 STRUCTURAL ENGINEERING 2
This unit considers the following: limit states design of steel structures; buckling and ultimate strength behaviour of steel structures; tension members, compression members; local and global buckling (flexural and flexural torsional buckling modes) concepts as applied to compression members and beams; effective lengths of compression members and beams; design of beams; effect of lateral restraints on buckling; web stresses including web crippling and buckling; beam-columns; bolted and welded connections; unsymmetric bending of beams including principal second moments of area; shear stresses in beams of thin-walled open cross-sections and their shear centres. Most cold-formed steel sections are unsymmetric and hence the latter topics are useful in steel design.
Prerequisites: ENB102 or ENB270 or ENB276  Assumed knowledge: ENB273 is assumed knowledge.  Equivalents: CEB318  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2010 SEM-1

ENB376 TRANSPORT ENGINEERING
The transport system is an essential part of our physical infrastructure. It is imperative that civil engineers are able to undertake typical road and traffic engineering investigations, analyses and designs. These require an understanding of...
the intent of individual road system elements, how they operate, and how they are delivered and managed: this understanding is developed in this unit. Further, it is important that civil engineers are able to undertake multi-modal transport surveys to gain an understanding of the operation of a particular transport system.

Assumed knowledge: ENB274 and ENB372 are assumed knowledge. Equivalents: CEB323 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2010 SEM-2

ENB378 WATER ENGINEERING
The main topics to be covered in this unit follow: the hydrologic cycle and its application to the estimation of runoff from small catchments; probability and risk and the selection of design floods; hydrologic data; estimation of peak runoff using the Rational Formula; estimation of runoff hydrographs using rainfall-runoff routing models; the hydraulic characteristics of open channels; uniform flow, gradually varied flow and rapidly varied flow; the hydraulic characteristics of culverts and retention basins; the operation of urban drainage systems.

Prerequisites: ENB201 or ENB280 Equivalents: CEB319 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2010 SEM-1

ENB421 THERMODYNAMICS 2
Applications of heat transfer theory in steam power plant, refrigeration and gas turbines; steady state and transient conduction; convection with internal or external flow; free convection in stationary fluids; boiling and condensation; thermal resistance networks; heat exchangers; radiation heat transfer.

Prerequisites: ENB222 and ENB321 Equivalents: MMB351 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2010 SEM-1

ENB422 ENERGY MANAGEMENT
Topics covered in this unit include: Global energy and climate issues, the systematic process by which energy use is monitored and analysed; individual treatment of electricity, fuels and their properties, compressed air, buildings, cycle requirements, energy recovery equipment; financial analysis of proposals. Environmental aspects will be considered for each topic.

Assumed knowledge: ENB201 or ENB221 and ENB222 are assumed knowledge. Equivalents: MMB451 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2010 SEM-2

ENB423 HEATING, VENTILATION AND AIR-CONDITIONING
Heating, Ventilation and Air Conditioning (HVAC) is closely related to human habitation, comfort and productivity. It also consumes considerable amount of energy. With increasing global warming, it is becoming one of the most important engineering systems in modern buildings.

This unit will introduce you basic principles of HVAC and refrigeration systems. It will discuss the design factors and practices related to the design and operation of HVAC systems. It will also provide you with other relevant knowledge commonly used in the building services industry. This course should therefore provide you a good basis to undertake further study, research and professional work in this field.

Prerequisites: ENB201 or ENB221 or ENB222 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2010 SEM-1

ENB432 ENGINEERING ASSET MANAGEMENT AND MAINTENANCE
This unit includes the following: engineering asset management policy statement; overhaul and replacement of engineering assets; organisation for maintenance; maintenance planning and control; failure mode and effect analysis; reliability, maintainability and availability analysis; risk assessment; spare parts inventory management.

Assumed knowledge: MAB233 is assumed knowledge. Equivalents: MMB470 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2010 SEM-1

ENB433 PLANT AND PROCESS DESIGN
The unit is of great assistance to graduates who will work in one of the many industry where Mechanical Engineers are concerned with Plant and Process Design. These industries use heat exchangers, piping systems and cooling towers intensively. This would include power stations, mineral processing, sugar/processing and refinery/chemical industries. The unit is taught by university and industry specialists who have considerable experience in their chosen field.

Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2010 SEM-2

ENB434 TRIBOLOGY
Tribology is the study of friction, wear and lubrication. In this unit, the knowledge you acquire is applied to solve problems prevalent in engineering. Topics covered range from the theory of friction, lubricant properties and chemistry, to the control of friction and wear by proper selection of both materials and lubricants.

Prerequisites: ENB201 or ENB221 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2010 SEM-2

ENB435 COMPUTER INTEGRATED MANUFACTURING
Topics covered in this unit include: introduction of the concepts of strategic planning for computer integrated
manufacturing; concepts of advanced manufacturing technologies and the various components of computer integrated manufacturing system; the importance of concurrent engineering in the context of CIM; introduction to the principles of modelling and simulation techniques as a design and evaluation tool for manufacturing systems. **Assumed knowledge**: ENB231 and MAB233 are assumed knowledge. **Equivalents**: MMB471  Credit points: 12  **Contact hours**: 4 per week  **Campus**: Gardens Point  **Teaching period**: 2010 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 for estimating signal parameters for the detection of signals in the presence of noise will be discussed. The methods presented will be tested on real data drawn from different engineering applications, such as wireless communications, biomedical EEG signals and brain models, speech and music synthesis, and radars. **Prerequisites**: ENB342  Assumed knowledge: MAB233 is assumed knowledge.  **Equivalents**: EEB941  Credit points: 12  **Contact hours**: 4 per week  **Campus**: Gardens Point  **Teaching period**: 2010 SEM-2

### ENB452 ADVANCED POWER SYSTEMS ANALYSIS
The aim of this unit is to introduce you to the basic topics of power system analysis relevant to engineers involved in both operations and planning. Specific tasks will be evaluation of faults on lines, load flow and stability analyses using commercial packages. **Prerequisites**: ENB340  Assumed knowledge: ENB301 is assumed knowledge.  **Credit points**: 12  **Contact hours**: 3 per week  **Campus**: Gardens Point  **Teaching period**: 2010 SEM-2

### ENB453 POWER EQUIPMENT AND UTILISATION
The unit emphasises the use of relevant standards to the specification and design of electrical equipment for the use of electrical energy supply for buildings and lighting. Design approaches emphasise current engineering practise. **Prerequisites**: ENB340  **Credit points**: 12  **Contact hours**: 4 per week  **Campus**: Gardens Point  **Teaching period**: 2010 SEM-2

### ENB456 ENERGY
Renewable energy sources including solar and wind energies are becoming more important than ever due to increasing energy demand, dwindling oil and gas supplies, increasing pollution levels in the atmosphere and the associated global warming effects. Renewables may also help improve competitiveness and have a positive impact on regional development and employment.

An overview of the different energy sources will be covered followed by an understanding of the characteristics of solar energy, radiation calculation, measurements and applications in remote, hybrid and grid interactive configurations. Students will be equipped with fundamentals of alternative energy sources including solar thermal, photovoltaics and wind conversion technologies. **Assumed knowledge**: MAB126 or MAB180 or MAB131 are assumed knowledge.  **Equivalents**: EEB911  **Credit points**: 12  **Contact hours**: 4 per week  **Campus**: Gardens Point  **Teaching period**: 2010 SEM-2

### ENB457 CONTROLS, SYSTEMS AND APPLICATIONS
Control systems are playing an increasingly important role in process control, energy management and utility management. This unit is concerned with the application of advanced control systems with an emphasis on physical architectures and implementations. Topics covered include control system actuators, sensors and controllers, control system architectures, human machine interfacing, adaptive control strategies and intelligent control. **Prerequisites**: ENB301  **Credit points**: 12  **Contact hours**: 4 per week  **Campus**: Gardens Point  **Teaching period**: 2010 SEM-2

### ENB458 MODERN CONTROL SYSTEMS
This unit introduces the student to the following concepts: Discrete time control systems and their design, state space modelling and control system design using state space techniques, linear optimal control, non-linear systems, and adaptive control with applications of neuro-computing and fuzzy logic. **Prerequisites**: ENB301  **Credit points**: 12  **Contact hours**: 4 per week  **Campus**: Gardens Point  **Teaching period**: 2010 SEM-2

### ENB471 DESIGN OF CONCRETE STRUCTURES AND FOUNDATIONS
Concrete design and construction; roles of building professionals; current structures; structural systems; load paths; rules of thumb; building layout, function and form, design effects; seismic and element loads; formwork and placement constraints; reinforced and prestressed concrete slabs, beams and columns; architectural issues, connections and detailing; site investigation, spread and pile footings and foundations; retaining walls. **Prerequisites**: ENB276 and ENB371  **Equivalents**: CEB424  **Credit points**: 12  **Contact hours**: 4 per week  **Campus**: Gardens Point  **Teaching period**: 2010 SEM-1

### MAB125 FOUNDATIONS OF ENGINEERING MATHEMATICS
This unit introduces and reviews the elementary concepts of function, calculus, matrices and vectors with special reference to engineering related problems where
appropriate. Topics covered include the algebra of complex numbers, elementary functions and their properties, differentiation and integration methods and principles, geometric and algebraic applications of vectors and the solution of linear systems using matrices.

**Assumed knowledge:** Grade of at least Sound Achievement in Senior Mathematics B (or equivalent) or MAB105 is assumed knowledge  
**Equivalents:** MAB100, MAB120, MAB180  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1, 2010 SEM-2 and 2010 SUM

**MAB126 MATHEMATICS FOR ENGINEERING 1**
 This unit extends the areas of function and calculus introduced in MAB125 by introducing series representations for functions and more advanced methods of differentiation and integration for functions of one variable. A strong connection to engineering related problems is made by introducing the use of differential equations in modelling, and exploring appropriate methods of solution, including the use of Fourier series and Laplace Transform methods. Practical calculations of volumes and surface areas of solids of revolution extend your interpretations of the definite integral. Taylor and Fourier series are introduced as a means of approximating functions by sums of polynomials and periodic functions.

**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:** 2010 SEM-1, 2010 SEM-2 and 2010 SUM

**MAB127 MATHEMATICS FOR ENGINEERING 2**
 This unit extends the areas of function, calculus, matrices and vectors introduced in MAB125 by introducing functions of more than one variable, partial derivatives and multiple integrals, vector valued functions, and matrix methods for the solution of systems of ordinary differential equations. Each of these topics is realised by contextualised engineering related problems.

**Assumed knowledge:** Grade of at least Sound Achievement in Senior Mathematics C (or equivalent) or MAB125 or MAB120 or MAB131 or MAB182 is assumed knowledge  
**Equivalents:** MAB112, MAB122, MAB132  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1, 2010 SEM-2 and 2010 SUM

**MAB233 ENGINEERING MATHEMATICS 3**
 This unit is mostly introductory statistics for engineering but also includes a small component on foundations of computational mathematics. Statistics includes: the planning, execution, analysis and reporting of data investigations; use of a statistical package; modelling data; relationships between variables; estimation; confidence intervals; tolerance limits; hypothesis testing; fitting and investigating relationships; regression; design and analysis of experiments; risk; random variables; special distributions; linear combinations of correlated variables; reliability. The introduction to computational mathematics includes: function approximation; polynomial interpolation; numerical solution of ordinary differential equations.

**Prerequisites:** MAB131 or MAB182 or MAB121 or MAB126 or MAB127  
**Antirequisites:** BSB123  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1

**MGB200 LEADING ORGANISATIONS**
 This unit introduces you to a range of perspectives in understanding human behaviour and its context within organisation structures. The unit also enables you to interpret, analyse, evaluate and explain conditions and consequences of work in organisations with a view to understanding and appreciating complex management issues in day to day experiences in business.

**Prerequisites:** BSB115 or CTB115  
**Antirequisites:** MGB211, CTB211, MGB222, CTB232  
**Credit points:** 12  
**Contact hours:** 3  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1, 2010 SEM-2 and 2010 SUM

**MGB201 CONTEMPORARY EMPLOYMENT RELATIONS**
 This unit will develop your skills in understanding the effects of both domestic and international legal environments relating to employment relationships. This is important for developing practical, workable business strategies and HRM interventions.

**Prerequisites:** BSB115 or CTB115  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1 and 2010 SEM-2

**MGB207 HUMAN RESOURCE ISSUES AND STRATEGY**
 This unit provides a broad overview of the role and functions of human resource management (HRM) and explores the contribution of HRM to business performance and quality of work life. This unit gives you a foundation for professional practice in HRM and a practical introduction to the ways that organisations go about aligning the contributions of their people with business goals.

**Prerequisites:** BSB115 or CTB115  
**Equivalents:** CTB207  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1 and 2010 SEM-2

**MGB210 MANAGING OPERATIONS**
 This unit extends general management approaches to the production operations subsystems of service and manufacturing organisations. The unit focuses on the deployment of productive resources in order to maximise
the added value of services and products. Issues of quality and efficiency are considered analytically in terms of broader strategies and constraints. It considers the opportunities that new technology brings to operational strategies in both manufacturing and service. Project management principles are considered in relation to resource deployment and continuous improvement.

**Prerequisites:** BSB115 or CTB115  
**Equivalents:** CTB234  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1 and 2010 SEM-2

**MGB220 BUSINESS RESEARCH METHODS**

The unit will develop your understanding of business research methods so that you can undertake research into workplace issues and problems as well as being able to critically analyse the appropriateness of research findings for the real world.

**Prerequisites:** BSB123 or BSB122  
**Antirequisites:** AMB201, CTB201  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1

**MGB223 ENTREPRENEURSHIP AND INNOVATION**

This unit introduces students to the nature and characteristics of entrepreneurship and innovation and explores the inter-relationship between the two within contemporary economies from managerial perspective. Learning will be directed towards developing the theoretical and applied knowledge, skills, and attitudes that will support and enhance innovation and enterprise creation activity, through the development of a business plan. The unit is designed for those individuals interested in creating a new venture or working in industries as employees of venture owners or those that serve this sector. Students will have opportunity to build a comprehensive plan of their business concept.

**Prerequisites:** BSB115 or CTB115  
**Equivalents:** CTB223  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point and Caboolture  
**Teaching period:** 2010 SEM-1 and 2010 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  
**Credit points:** 12  
**Contact hours:** 3  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1 and 2010 SEM-2

**MGB309 STRATEGIC MANAGEMENT**

In this unit fundamental elements of strategy, which can be used in the decision making process, are placed in a framework that is developed within the particular context of Australia's economic development position. The emphasis is upon process and content issues that affect the strategic performance and positioning of the organisation. This involves creating an understanding of the universal building blocks of competitive advantage at the business, corporate and international levels. By understanding the nature and determinants of competitive and strategic advantages, students should enhance their professional competences to be able to take a more strategic and critical perspective.

**Prerequisites:** MGB200, MGB211, CTB211, MGB222, or CTB232  
**Antirequisites:** MIB314  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point and Caboolture  
**Teaching period:** 2010 SEM-1 and 2010 SEM-2

**MGB310 SUSTAINABILITY IN A CHANGING ENVIRONMENT**

This unit provides participants with an opportunity to investigate selected and critical issues in the relationship between business activity and the imperative of creating sustainable futures. The unit draws on interdisciplinary sources to encourage the development of a systemic view that incorporates global, corporate, and personal levels of analysis. The unit prepares participants to make a significant contribution to the sustainable development of organisations and society. The unit will be of value to business and non-business students seeking careers in private, public, and not-for-profit sectors.

**Prerequisites:** MGB200, MGB211, CTB211, MGB222, or CTB232  
**Antirequisites:** MIB334, CTB334, MGB212  
**Credit points:** 12  
**Contact hours:** 3  
**Campus:** Gardens Point and Caboolture  
**Teaching period:** 2010 SEM-1 and 2010 SEM-2

**MGB320 RECRUITMENT AND SELECTION**

This unit examines the most effective techniques for recruiting and selecting the best people for organisations, in the context of current pressures on attracting and keeping skilled, talented people in the workforce. Commonly used recruitment and selection techniques are covered, emphasising the validity and reliability of each technique, to enable the best strategies to be developed.

**Prerequisites:** MGB339 or MGB221  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-2
MGB324 MANAGING BUSINESS GROWTH
This unit is designed to provide skills in the analysis, solutions and implementation of the general management issues that SME owners have to manage in their growing operations. The unit brings together the different functional aspects of managing an established SME and how they are best managed from the owner's (general manager's) point of view. It also provides opportunity to bring students into contact with real world SME owners and their venture management issues.

Prerequisites: MGB223  Equivalents: MGB218  Credit points: 12  Contact hours: 3  Teaching period: 2010 SEM-1

MGB331 LEARNING AND DEVELOPMENT IN ORGANISATIONS
This unit is designed to equip you with the skills and knowledge to meet strategic organisational human resource development requirements. The unit explores learning and development concepts and approaches and the role of learning and development as a strategic partner to management. You will learn how to design, implement and evaluate systems for learning in organisations as part of a strategic approach to human resource development.

Prerequisites: MGB211, CTB211, MGB222, CTB232, or MGB200  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2010 SEM-1

MGB335 PROJECT MANAGEMENT
This unit develops knowledge in the areas relating to effective management of projects (as distinct processes). This knowledge is gained by focusing on the central issues of project selection, modelling, planning, control and evaluation. Case study projects are used throughout the unit and are mainly from the services industry sector. The unit seeks to develop the technical skills (tools and techniques) as well as the people (behavioural) skills needed for effective management of projects.

Prerequisites: (MGB210 and MGB309) or (MGB210 and AMB303)  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point and Caboolture  Teaching period: 2010 SEM-1 and 2010 SEM-2

MGB339 PERFORMANCE AND REWARD
This unit will provide you with the basic competencies expected of HR practitioners in managing performance and reward/compensation systems, which are among the most important strategies used by organisations to support competitive advantage. Performance and Reward Management is a key functional area of HRM and it is imperative that you understand the strategic framework within which these decisions are made.

Prerequisites: MGB201, MGB207, or CTB207  Equivalents: MGB221  Credit points: 12  Contact hours: 3  Teaching period: 2010 SEM-1

MGB340 INTERNATIONAL BUSINESS IN THE ASIA-PACIFIC
Australia is situated in the fastest growing region in the world - the Pan-Pacific rim. The aim of this unit is to meet the needs of future business professionals working internationally and particularly within the Pan-Pacific region, to understand the nature of this region's business environment.

Prerequisites: MGB225, IBB205, IBB217, or IBB208  Antirequisites: IBB317  Credit points: 12  Campus: Gardens Point  Teaching period: 2010 SEM-2

MGB370 PERSONAL AND PROFESSIONAL DEVELOPMENT
This unit develops personal, interpersonal and team skills that distinguish outstanding human resource, management and other professionals. Recent literature has identified the need for professionals to acquire knowledge in the areas of self management and the management of others to contribute to organisational performance. To achieve this, Personal and Professional Development is positioned at the conclusion of the course to build upon concepts learned in introductory and intermediate units with a strong focus on the application of theory to practice.

Prerequisites: MGB331 and BSB124  Equivalents: MGB315  Credit points: 12  Contact hours: 3  Teaching period: 2010 SEM-1 and 2010 SEM-2