Bachelor of Games and Interactive Entertainment - Dean's Scholars Program (IT04)

Year offered: 2011
Admissions: Yes
CRICOS code: 059710E
Course duration (full-time): 3 years
Domestic Fees (indicative): 2011: CSP $3,878 (indicative) per semester
International Fees (indicative): 2011: $11,375 (indicative) per semester
Domestic Entry: February: Fixed closing date - 26th November, 2010
International Entry: February: Fixed closing date - 26th November, 2010. This course is only available to international students completing Year 12 in Australia
QTAC code: 418002
Past rank cut-off: 97 plus successful questionnaire and interview. Please refer to Additional Entry Requirements.
Past OP cut-off: 2 plus successful questionnaire and interview. Please refer to Additional Entry Requirements.
Assumed knowledge: English (4, SA) and Maths A, B or C (4, SA)
Preparatory studies: For information on acquiring assumed knowledge visit http://www.qut.edu.au/assumed-knowledge
Course coordinator: Richard Thomas
Campus: Gardens Point

Why Choose This Course
This course is a collaboration between the Faculties of Science and Technology, and Creative Industries, allowing you to be taught design and technology skills from the experts in their field. Queensland is leading the video game industry with figures showing the State earns more than any other from interactive entertainment. The State’s game developers generate approximately $55 million per year; a 40 per cent slice of Australia’s video games earnings, according to an Australian Bureau of Statistics report. Queensland game companies also employ almost half of the video game industry’s workforce, with Brisbane becoming a hub of games talent, producing games for a worldwide audience.

Popular games titles produced in Queensland include Hellboy, the children’s game Viva Pinata Party Animals and Star Wars: The Force Unleashed.

Course Structure
The 24-unit degree comprises:

- seven (7) core units including a 24 credit-point final-year project
- eight units in your chosen major
- four units in a secondary area of study, also known as your minor
- four optional units where you can choose units from across QUT to complement your studies.

MAJORS
Choose your primary area of study, also known as your major, from:

Animation This major includes foundation studies in the production of animation and motion graphics; history of animation practices; and programming which includes object orientation, 3D computer graphics and computer generated art. You will develop skills enabling you to work in areas such as computer games, interactive media arts, web applications, sound design, adaptive music and interactive public art works.

Digital Media This major will prepare you for careers as digital game designers, developers and multimedia architects, making use of the rapid convergence of mixing graphics, video, animation and sound to meet the increasingly complex world of digital entertainment. Organisations are also interested in the strategies that multimedia architects contribute to achieving maximum efficiency and competitiveness such as integrating multimedia content with information in enterprise software systems and organisations’ websites.

Game Design This major provides you with hands-on game design experience, as well as knowledge of narrative and immersion (drawing the player into the game), architecture and interior design to encourage the creation of interesting and unique models within the virtual environment.

Software Technologies# This major will prepare you for careers in the game and simulation industries such as software tester, video game tester, game programmer and software tools developer. You will study technological aspects of computer games, games engine and tools development. Companies used to provide ‘in-house’ training for programming skills, however they are now turning to tertiary institutions to provide appropriately qualified graduates.

MINORS
- Animation
- Advanced Animation
- Digital Media
- Entrepreneurship
• Game Design
• Legal Issues
• Marketing
• Mathematics for Games
• Mobile and Network Technologies
• Physics for Games
• Software Technologies
• Advanced Software Technologies^  
• Sound Design

#Requirement for this major is an SA or better in Queensland Maths B (or equivalent). Only available to those undertaking the animation major.
^Only available to those undertaking the software technologies major.

Career Outcomes
Depending on your specialisation, graduates may find employment as a games/digital media programmer, game designer, simulation developer or designer, animator, film and television special effects developer, games/digital media reviewer, video game tester, sound designer, mobile entertainment and communications developer, web developer, digital product strategist, computer systems engineer, multimedia designer, software engineer, or technical officer.

Professional Recognition
As a graduate of the Dean's Scholars Program you will be qualified for professional accreditation and employment in fields relevant to your specialisation.

Your Course
Year 1
In your first year you will undertake five core units, consisting of:
• Computer Games Studies
• Building IT Systems
• Industry Insights
• Introducing Design
• Games Production

You will also undertake three units within your chosen major or minor.

Year 2
Second year consists of units within your chosen major and minor together with electives chosen from anywhere in the University.

Year 3
In your final year, you will extend your professional and technical skills by participating in a major group project to produce a significant piece of digital work using PC, mobile devices, consoles or virtual reality. You will also undertake a special topic. You will complete your units for your chosen major, minor and electives.

Note:
The Faculty may wish to make your project or thesis work available to other students undertaking Honours studies as an exemplar. As the copyright owner of the work you have created, the Faculty will respect your rights and will seek your authorisation to share your work.

Prerequisites
Must be a current Year 12 student or a student returning from a gap year who completed their Year 12 education in Australia; successful questionnaire; interview.

Financial Support
Domestic students offered a place in the Dean's Scholars Program will have their undergraduate HECS paid by the Faculty and those proceeding to Honours will also receive full HECS support.

International students will have one-third of their tuition fees paid by the faculty for the undergraduate and honours programs.

Students are responsible for all other costs associated with their program.

OP Guarantee
The OP Guarantee does not apply to this program.

Cooperative Education Program
The Cooperative Education Program gives students the opportunity of 10-12 months paid industry placement during your course where they can integrate real experience with what they are learning in their degree. Companies that QUT’s Coop Ed students have worked with include Energex, Boeing, CITEC, CSC Mining, Environmental Protection Agency, Dialog, UNiTAB, RACQ and many Queensland Government departments.

Students participating in this program enrol in INS011 Cooperative Education 1 and INS012 Cooperative Education 2 in the second semester of the program. The cooperative education program and its mentoring and assessment requirements make up the required contact and assessment of both units. Eligibility criteria apply. International students are not eligible due to visa restrictions.

Part-time students who are working in a professional position related to the BGIE may be able to use their current...
employment to meet the criteria for completing INS011 Cooperative Education 1, after completion of 168 credit points in the Bachelor of Games and Interactive Entertainment, subject to meeting eligibility criteria. Further information about this option is available from Student Services, Level 3, O Block Podium, Gardens Point Campus.

Find out more about the Cooperative Education Program.

**Unit Incompatibility/Translation Information**
Details on the translation and incompatibility of old and new units is located here:
Undergraduate Translation Table
If you have completed the unit(s) listed under the "Translation Unit Codes" column you are not permitted to enrol in the listed new code

**Limits on grades of 3**
A new policy concerning grades of 3 came into effect from 1 January 2009 (QUT MOPP C/5.2). With effect from this date grades of 3 are no longer considered a conceded or low pass but are classified as a fail grade. Any grades of 3 awarded prior to 1 January 2009 retain the conceded pass status and will be counted for graduation purposes up to the maximum number of grades of 3 permitted for your course. Grades of 3 incurred in units that commence after 1 January 2009 will not count towards your degree. Further information is available on the Student Services website.

**Further Information**
For further information about this course, please contact the following:

Michael Docherty
Phone: +61 7 3138 2782
Email: enquiry.scitech@qut.edu.au

Bachelor of Games and Interactive Entertainment - Dean's Scholars Program

The course consists of four blocks of studies

- **Block A**: Core Studies (7 units including a 24 credit point Project)
- **Block B**: Major (8 units) selected from Animation; Digital Media; Games Design; Software Technologies
- **Block C**: Minor (4 units)
- **Block D**: Electives (4 units)

**Year 1, Semester 1**
INB180 Computer Games Studies
INB104 Building IT Systems

**Year 1, Semester 2**
INB103 Industry Insights
INB182 Introducing Design

**Year 1, Semester 2**

<table>
<thead>
<tr>
<th>INB181</th>
<th>Introduction to Games Production</th>
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<tr>
<td>Block B or Block C Unit or Block D Unit</td>
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<td>Block B or Block C Unit or Block D Unit</td>
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**Year 2, Semester 1**

| Block B or Block C Unit or Block D Unit |
| Block B or Block C Unit or Block D Unit |
| Block B or Block C Unit or Block D Unit |
| Block B or Block C Unit or Block D Unit |
| Block B or Block C Unit or Block D Unit |

**Year 2, Semester 2**

| Block B or Block C or Block D Unit |
| Block B or Block C or Block D Unit |
| Block B or Block C or Block D Unit |
| Block B or Block C or Block D Unit |

**Year 3, Semester 1**
INB380 Games Project

| Block B or Block C or Block D Unit |
| Block B or Block C or Block D Unit |
| Postgraduate IT Elective |

**Year 3, Semester 2**
INN700 Introduction To Research
INN701 Advanced Research Topics
INN401 Honours Dissertation 1
Postgraduate IT Elective

**Year 3, Summer**
INN402 Honours Dissertation 2
INN403 Honours Dissertation 3
INN404 Honours Dissertation 4

Bachelor of Games & Interactive Entertainment Majors

**Course structure (Block B) 2011**

**Animation**
Select 8 units from:

KIB105  Animation and Motion Graphics
KIB108  Animation History and Practices
KVB105  Drawing for Design
KVB106  Drawing for Animation
KIB220  Animation Production
KIB203  Introduction to 3D Computer Graphics
KIB221  Animation: CG Toolkit
KIB225  Character Development, Conceptual Design and Animation Layout
KIB316  Virtual Environments
KIB325  Real-Time 3D Computer Graphics

Digital Media

KIB101  Visual Communication
KIB102  Visual Interactions
INB345  Mobile Devices
INB386  Advanced Multimedia Systems
KIB309  Embodied Interactions
KIB230  Interface and Information Design
INB385  Multimedia Systems
KIB314  Tangible Media

Game Design

INB280  Fundamentals of Game Design
INB272  Interaction Design
KIB201  Concept Development for Game Design and Interactive Media
KIB202  Enabling Immersion
INB282  Games Level Design
INB281  Advanced Game Design
DEB103  Visualisation 1
KIB214  Design for Interactive Media

Software Technologies*

INB270  Programming
MAB281  Mathematics for Computer Graphics
INB210  Databases
INB250  Computer Architectures and Systems
INB370  Software Development
INB371  Data Structures and Algorithms
INB381  Modelling and Animation Techniques

INB382  Real Time Rendering Techniques
OR
INB383  AI for Games

Bachelor of Games & Interactive Entertainment Minors

Course structure (Block C) 2011

Students select a Minor from the following

Animation

KIB105  Animation and Motion Graphics
KVB105  Drawing for Design
KVB106  Drawing for Animation
KIB203  Introduction to 3D Computer Graphics
KIB225  Character Development, Conceptual Design and Animation Layout
KIB108  Animation History and Practices

Advanced Animation#

KIB325  Real-Time 3D Computer Graphics
KIB320  Advanced Concepts in Computer Animation 1
KIB321  Advanced Concepts in Computer Animation 2
KIB316  Virtual Environments

#Entry into this minor is limited to students enrolled in the Animation Major

Advanced Software Technologies #

INB365  Systems Programming
INB372  Agile Software Development
INB374  Enterprise Software Architecture
INB382  Real Time Rendering Techniques
OR

INB383  AI for Games

# Only available to students doing the Software Technologies major

Digital Media

KIB101  Visual Communication
OR
KIB103  Introduction to Web Design and Development

Plus all of the following:

KIB102  Visual Interactions
INB385  Multimedia Systems
INB386  Advanced Multimedia Systems

Entrepreneurship
BSB115 Management
MGB223 Entrepreneurship and Innovation
MGB324 Managing Business Growth
Plus one from the following:
BSB126 Marketing
MGB200 Leading Organisations

Game Design
KIB201 Concept Development for Game Design and Interactive Media
KIB202 Enabling Immersion
INB280 Fundamentals of Game Design
INB281 Advanced Game Design
OR
INB272 Interaction Design

Legal Issues
LWB136 Contracts A
LWB145 Legal Foundations A
Two units selected from the following
LWB137 Contracts B
LWB142 Law, Society and Justice
LWB480 Media Law
LWB482 Internet Law
LWB486 Intellectual Property Law

Marketing
BSB126 Marketing
AMB200 Consumer Behaviour
AMB201 Marketing and Audience Research
AMB240 Marketing Planning and Management

Mathematics for Games#
MAB120 Algebra and Calculus
MAB121 Calculus and Differential Equations
MAB122 Algebra and Analytic Geometry
MAB312 Linear Algebra
# Students who have completed Maths C can substitute MAB120 with one of the following units: MAB311, MAB481 or MAB422

Mobile and Network Technologies
INB102 Emerging Technology
INB251 Networks
INB350 Internet Protocols and Services
INB353 Wireless and Mobile Networks

Sound Design
Select 4 units from the following:
KMB107 Sound, Image, Text
KMB119 Music and Sound Production 1
KMB129 Music and Sound Production 2
KMB252 Multi-Platform Sound Design
KKB216 Graphical Development Environments for Media Interaction

Physics for Games
MAB121 Calculus and Differential Equations
PQB250 Mechanics and Electromagnetism
PQB251 Waves and Optics
Choose 1 from the following
PQB450 Energy, Fields and Radiation
PQB460 Astrophysics 1
PCB593 Digital Image Processing

Software Technologies
INB270 Programming
INB210 Databases
INB250 Foundations of Computer Science
INB371 Data Structures and Algorithms
This minor is not available to students who are undertaking the Software Technologies Major

Bachelor of Games & Interactive Entertainment Majors
Course structure (Block B) 2010

Animation
KIB105 Animation and Motion Graphics
KIB108 Animation History and Practices
KVB105 Drawing for Design
KVB106 Drawing for Animation
KIB220 Animation Production
KIB203 Introduction to 3D Computer Graphics
KIB225 Character Development, Conceptual Design and Animation Layout
KIB325 Real-Time 3D Computer Graphics

Digital Media
KIB101 Visual Communication
KIB102 Visual Interactions
**Course structure (Block C) 2010**

**Game Design**
- INB280 Fundamentals of Game Design
- INB272 Interaction Design
- KIB201 Concept Development for Game Design and Interactive Media
- KIB202 Enabling Immersion
- INB281 Advanced Game Design
- KIB214 Design for Interactive Media

AND
- Two units selected from the following:
  - DAB110 Architectural Design 1
  - DEB201 Digital Communication
  - DTB101 Interior Design 1
  - DNB101 Industrial Design 1

**Software Technologies**
- INB270 Programming
- MAB281 Mathematics for Computer Graphics
- INB210 Databases
- INB250 Systems Architecture
- INB370 Software Development
- INB371 Data Structures and Algorithms
- INB381 Modelling and Animation Techniques
- INB382 Real Time Rendering Techniques
- INB383 AI for Games

* Requirements for this Major is a SA or better in Queensland Maths B (or equivalent)

**Advanced Animation**
- KIB221 Animation: CG Toolkit
- KIB320 Advanced Concepts in Computer Animation 1
- KIB321 Advanced Concepts in Computer Animation 2
- KIB316 Virtual Environments

#Entry into this minor is limited to IT04 students enrolled in the Animation Major, who have completed at least 96 credit points of study, and have gained an average grade of 5.0 or above across the following units from the Animation Major: KIB105, KIB108, KVB105, KVB106.

**Advanced Software Technologies**
- INB365 Systems Programming
- INB372 Agile Software Development
- INB374 Enterprise Software Architecture
- INB382 Real Time Rendering Techniques
- INB383 AI for Games

# Only available to students doing the Software Technologies major

**Digital Media**
- KIB101 Visual Communication
- KIB102 Visual Interactions
- INB385 Multimedia Systems
- INB386 Advanced Multimedia Systems

**Entrepreneurship**
- BSB115 Management
- MGB223 Entrepreneurship and Innovation
- MGB324 Managing Business Growth

Plus one from the following:
- BSB126 Marketing
- MGB200 Leading Organisations

**Game Design**
- KIB201 Concept Development for Game Design and Interactive Media
- KIB202 Enabling Immersion
- INB280 Fundamentals of Game Design
- INB281 Advanced Game Design
- INB283 AI for Games

OR

- KIB272 Interaction Design

Students select a Minor from the following:

**Animation**
- KIB105 Animation and Motion Graphics
- KVB105 Drawing for Design
- KVB106 Drawing for Animation
- KIB108 Animation History and Practices

**Digital Media**
- KIB101 Visual Communication
- KIB102 Visual Interactions
- INB385 Multimedia Systems
- INB386 Advanced Multimedia Systems

**Entrepreneurship**
- BSB115 Management
- MGB223 Entrepreneurship and Innovation
- MGB324 Managing Business Growth

Plus one from the following:
- BSB126 Marketing
- MGB200 Leading Organisations

**Game Design**
- KIB201 Concept Development for Game Design and Interactive Media
- KIB202 Enabling Immersion
- INB280 Fundamentals of Game Design
- INB281 Advanced Game Design
- INB283 AI for Games

OR

- KIB272 Interaction Design
Legal Issues
LWB141  Legal Institutions and Method
LWB136  Contracts A
LWB137  Contracts B
LWB142  Law, Society and Justice
LWB480  Media Law
LWB482  Internet Law
LWB486  Intellectual Property Law

Marketing
BSB126  Marketing
AMB251  Innovation and Brand Management
AMB240  Marketing Planning and Management
AMB201  Marketing and Audience Research
AMB359  Strategic Marketing

Mathematics for Games#
MAB120  Algebra and Calculus
MAB121  Calculus and Differential Equations
MAB122  Algebra and Analytic Geometry
MAB312  Linear Algebra

Mobile and Network Technologies
INB102  Emerging Technology
INB251  Networks
INB350  Internet Protocols and Services
INB353  Wireless and Mobile Networks

Sound Design
KMB106  Music and Sound for Multimedia
KMB107  Sound, Image, Text
KMB119  Music and Sound Production 1
KMB129  Music and Sound Production 2

Software Technologies
INB270  Programming
INB210  Databases
INB250  Systems Architecture
INB371  Data Structures and Algorithms

Physics for Games
MAB121  Calculus and Differential Equations
PQB250  Mechanics and Electromagnetism
PQB251  Waves and Optics

Choose 1 from the following
PQB450  Energy, Fields and Radiation
PQB460  Astrophysics 1
PCB593  Digital Image Processing

This minor is not available to students who are undertaking the Software Technologies Major

Postgraduate IT Units
Unit List:
INN210  Databases
INN220  Business Analysis
INN221  Technology Management
INN250  Foundations of Computer Science
INN251  Networks
INN255  Security
INN270  Programming
INN271  The Web
INN272  Interaction Design
INN280  Fundamentals of Game Design
INN281  Advanced Game Design
INN282  Games Level Design
INN311  Enterprise Systems
INN312  Enterprise Systems Applications
INN313  Electronic Commerce Site Development
INN320  Business Process Modelling
INN321  Business Process Management
INN322  Information Systems Consulting
INN323  Smart Services
INN330  Information Management
INN331  Management Issues for Information Professionals
INN332  Information Retrieval
INN333  Information Programs
INN334  Information Issues and Values
INN335  Information Resources
INN340  Database Design
INN341  Software Development With Oracle

# Students who have completed Maths C can substitute MAB120 with one of the following units: MAB311, MAB481 or MAB422
Students must first seek permission from the Course Coordinator to enrol in the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>INN690</td>
<td>Minor Project 1</td>
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<tr>
<td>INN691</td>
<td>Minor Project 2</td>
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<tr>
<td>INN692</td>
<td>Minor Project 3</td>
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<td>INN693</td>
<td>Project</td>
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<td>INN694-1</td>
<td>Project</td>
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<td>INN694-2</td>
<td>Project</td>
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<tr>
<td>INN695</td>
<td>Major Project</td>
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<td>INN696-1</td>
<td>Major Project</td>
</tr>
<tr>
<td>INN696-2</td>
<td>Major Project</td>
</tr>
</tbody>
</table>

**Potential Careers:**

**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 or CTB126 or BSB116 or BSB117

**Antirequisites:** MIB204

**Equivalents:** AMX200, CTB200

**Credit points:** 12  
**Contact hours:** 3 per week

**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1, 2011 SEM-2 and 2011 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:** AMX201, CTB201

**Credit points:** 12  
**Contact hours:** 3
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: AMX201, CTB201
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point and Caboolture
Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

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: AMX240, CTB240
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point and Caboolture
Teaching period: 2011 SEM-1 and 2011 SEM-2

AMB251 INNOVATION AND BRAND MANAGEMENT
This unit covers the dynamics of product and service innovation within the marketing function of an organisation. Products are defined in the broadest sense as both tangible and intangible and include the various categories of consumer and industrial products and services. The course covers product market analysis, the product/service development process, design, innovation, research and testing, new product financial analysis, branding and packaging, and new product commercialisation.

Prerequisites: BSB126, BSB116, or CTB126
Antirequisites: MIB227
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 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, AMB359
Credit points: 12
Campus: Gardens Point and Caboolture
Teaching period: 2010 SEM-1 and 2010 SEM-2

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:** BSX115, CTB115  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point and Caboolture  **Teaching period:** 2011 SEM-1, 2011 SEM-2 and 2011 SUM-1

**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,BSD126  **Equivalents:** BSB126, 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

**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, BSD126  **Equivalents:** BSB126, CTB126  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point and Caboolture  **Teaching period:** 2011 SEM-1, 2011 SEM-2 and 2011 SUM

**DAB110 ARCHITECTURAL DESIGN 1**
This unit offers a broad introduction to the field of design as applied to architecture. It uses developmental exercises to enhance student perceptions of the built environment in a problem based learning environment. Analysis of the constructed environment leads to a number of design projects that engage with issues of context, tectonics, planning, form, and spatial quality. Orthogonal drawing exercises, freehand sketching, presentation graphics and model making all form part of the unit content. Teaching and learning activities are spread across lectures, tutorials, and studio based activities.

**Prerequisites:** DEB103 or DAB110 or DNB101 or DNB101  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-1

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

**Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-1

**DEB201 DIGITAL COMMUNICATION**
This unit introduces students to the foundational aspects of digital design communication, placing generic design in context and focusing on multidisciplinarity in the stages of the design process. This unit is an approach to the theory and practice of digital media, exploring the translation from manual to digital media in design communication and presentation.

**Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-1

**DNB101 INDUSTRIAL DESIGN 1**
Industrial design revolves around the creation of products that satisfy human needs within the constraints of industrial and commercial production. This involves the manipulation of form with an understanding of structure, function, and beauty. Through projects students will be exposed to: basic design elements and principles; introduction to product visualisation techniques including concept sketching and marker rendering; design process and concept development; basic model making techniques; design presentation.

**Prerequisites:** DEB103 or DAB110 or DNB130 or DNB101  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-1

**DTB101 INTERIOR DESIGN 1**
This unit provides foundational material for the study of interior design. Students will be introduced to design theory, methodology and aesthetics. Design will be explored as an interpretive process. Topics covered in the context of projects for the unit include: The studio as a way of learning;
Introductory design exercises exploring two and three dimensional elements as they relate to the interior design context; Freehand sketching, principles of perspective; Mechanical drawing, principles of scaled drawing; Presentation and visual communication skills; Environmental issues and sustainability.

Prerequisites: DEB103 or DAB110 or DLB130 or DNB101. DEB103 can be studied in the same teaching period as DTB101

Equivalents: ADB101

Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2010 SEM-1

INB102 EMERGING TECHNOLOGY
The aim of this unit is to provide you with a conceptual framework so that you clearly identify Information Technologies and their purpose. This task will be fun as it covers a wide spectrum of ideas and allows us to examine some currently popular technologies. Information Technology has become so entwined with everyday life that identifying its scope is difficult, which also makes it difficult to identify opportunities where IT might further infiltrate into our daily lives for work and play. To achieve these aims, the unit introduces you to some of the theories and engineering practicalities that have already resulted in technological advances in the area of information technology. Concepts leading to existing technologies are introduced during lectures, which are followed by laboratory sessions where students will be encouraged to discuss social change, future information tools and explore the concepts required for constructing these technologies.

Equivalents: ITB005  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period:  
2011 SEM-1 and 2011 SEM-2

INB103 INDUSTRY INSIGHTS
This unit aims to develop your awareness of the career possibilities in the ICT industry and to equip you with some of the essential skills required of an ICT professional. The unit helps you to derive a roadmap for your career; to enable you to identify the qualities, skills and interests you need to possess, to plan your career path. The unit will also introduce you the inter-disciplinary nature of ICT careers.

Equivalents: ITB002  
Credit points: 12  
Contact hours:  
3 per week  
Campus: Gardens Point  
Teaching period:  
2011 SEM-1 and 2011 SEM-2

INB104 BUILDING IT SYSTEMS
Today's modern integrated technology is built on IT systems which run in a range of contexts (e.g. mobile computing, robotics, and web-based systems) using a range of technological solutions such as programming and scripting, databases, web development and network programming. This unit is an integrated introduction to information technology designed to engage, inspire and inform and will demonstrate the important role that technical system design and development plays in achieving robust operation of a large variety of technological solutions. This unit will give you substantial hands-on, practical learning experiences and will motivate you through engagement in the creative, explorative and meaningful development of technological artefacts that operate in real world contexts.

Equivalents: ITB001  
Credit points: 12  
Contact hours:  
3 per week  
Campus: Gardens Point  
Teaching period:  
2011 SEM-1 and 2011 SEM-2

INB105 COMPUTER GAMES STUDIES
This unit is designed to give you a clear understanding of the socio-cultural issues that affect the computer game industry. Through critical review of games and games industry literature, playing games and actively participating in classroom discussion you will develop your capacity to join in the discourse about the design, impact and future direction of computer games in our society.

Antirequisites: INN180, ITB750  
Credit points: 12  
Contact hours:  
3 per week  
Campus: Gardens Point  
Teaching period:  
2011 SEM-1

INB181 INTRODUCTION TO GAMES PRODUCTION
This subject will provide you with knowledge and skills in games production. By gaining an overview of the production process, you will learn how the technology and the people involved integrate into a coherent and efficient manufacturing process. By the end of this subject you will have the knowledge to conceive, create, integrate and
optimise tools and personnel into a complete games production system.

**Antirequisites:** INN181  **Equivalents:** ITB751, ITN751

**Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-2

**INB182 INTRODUCING DESIGN**

Please note: this unit is only available to BGIE (Bachelor of Games and Interactive Entertainment) students. The act of designing is a common link between many disciplines such as game design, software design, animation and character design, architecture, industrial design, etc. This unit offers a broad and generic introduction to the act of designing in a discipline context free environment.

This unit is designed to expose you to a range of experiences not possible within the confines of the usual university routine. It also calls upon you to exert physical and mental efforts that may be different in degree and nature to your usual coursework. Through these opportunities this unit seeks to introduce you the ways of thinking like a designer.

**Antirequisites:** DEB101  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-1

**INB210 DATABASES**

The aim of this unit is to help you develop your knowledge, understand a formal specification tool (ORM) for modelling information systems unambiguously and to apply this formal technique to conceptualise information systems found in many real world application domains.

**Antirequisites:** INN210  **Equivalents:** ITB004  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-2

**INB210 DATABASES**

Databases and database systems are essential items that support many aspects of everyday life in modern society. All graduates from a course in Information Technology will be expected by employers to understand the concepts and terminology of databases. The aim of this unit is to introduce you to the structure and role of databases in modern organisations.

**Antirequisites:** INN210  **Equivalents:** ITB004  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-2

**INB250 SYSTEMS ARCHITECTURE**

Contemporary computer-based systems are built from a wide range of technologies working at different levels of abstraction, from microprocessor hardware, to operating system and application software, to entire communications networks. At each abstraction level different techniques are needed to understand emergent properties of the system. This unit introduces some of the foundational principles commonly used to reason about the behaviour of computer-dependent systems at different levels of abstraction. Such techniques are especially important in the context of safety-, security- or mission-critical systems.

**Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-2

**INB250 FOUNDATIONS OF COMPUTER SCIENCE**

Contemporary computer-based systems are built from a wide range of technologies working at different levels of abstraction, from microprocessor hardware, to operating system and application software, to entire communications networks. At each abstraction level different techniques are needed to understand emergent properties of the system. This unit introduces some of the foundational principles commonly used to reason about the behaviour of computer-dependent systems at different levels of abstraction. Most of the techniques are derived from the field of Discrete Mathematics and are the foundation of the discipline called Computer Science.

**Assumed knowledge:** Basic familiarity with set theory (Venn diagrams and set operators), elementary algebra (polynomial and summation expressions, exponents and logarithms, etc) and simple probability concepts (permutations and combinations).  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-2

**INB251 NETWORKS**

Computer systems and communications networks are essential to the activities of modern organisations. When you graduate from a course in Information Technology, employers expect you to have a sound understanding of the terminology and concepts of computer systems, communications networks, and network services. This unit provides you with an introductory study of communications network technologies and network applications. The unit serves as an entry point to further specialised studies in the field of computer network systems.

**Antirequisites:** INN251  **Equivalents:** ITB006  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-2

**INB251 NETWORKS**

Computer systems and communications networks are essential to the activities of modern organisations. When you graduate from a course in Information Technology, employers expect you to have a sound understanding of the terminology and concepts of computer systems, communications networks, and network services. This unit
provides you with an introductory study of communications network technologies and network applications. The unit serves as an entry point to further specialised studies in the field of computer network systems.

Prerequisites: INB270 PROGRAMMING
This unit aims to give you a positive introduction to the skills required in solving computational problems and implementing solutions in a programming or scripting language. Although some theoretical aspects of computer programming are introduced briefly, the overall emphasis of the unit is programming practice. The unit emphasises generic programming concepts and related problem-solving strategies. The skills you learn in this unit will be applicable to a wide variety of commonly-used, industrially-significant programming and scripting languages.

Prerequisites: INB104 or ENB246 Antirequisites: INN270 Equivalents: ITB003 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2010 SEM-2

INB270 PROGRAMMING
This unit aims to give you a positive introduction to the skills required in solving computational problems and implementing solutions in a programming or scripting language. Although some theoretical aspects of computer programming are introduced briefly, the overall emphasis of the unit is programming practice. The unit emphasises generic programming concepts and related problem-solving strategies. The skills you learn in this unit will be applicable to a wide variety of commonly-used, industrially-significant programming and scripting languages.

Prerequisites: INB104 or ENB246 Antirequisites: INN270 Equivalents: ITB003 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2011 SEM-2 and 2011 SEM-2

INB272 INTERACTION DESIGN
The aim of this unit is to provide you with an understanding of the theory, practices and challenges associated with the development of creative interactive design and human computer interaction.

Prerequisites: INB103 or INB181 Equivalents: ITB254 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2011 SEM-2

INB272 INTERACTION DESIGN
INB281 ADVANCED GAME DESIGN
This unit will provide you with theoretical and practical knowledge of advanced games design concepts; that is, specific activities undertaken by game designers and their purpose. By the end of this unit you will have the knowledge to identify problems and suggest solutions for innovative game designs, as well as understand how to carry out the process of designing a game yourself. You will possess practical and theoretical knowledge of game design issues such as: how to design a game level, how to design a task and reward a player for completing it, how to ensure that the player knows how to progress through the game and how to design characters whose behaviour and dialogue provide clues and prompts to the player.

Prerequisites: INB280
Equivalents: ITB017
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2011 SEM-1

INB282 GAMES LEVEL DESIGN
Prerequisites: INB281
Credit points: 12
Teaching period: 2011 SEM-1

INB345 MOBILE DEVICES
This unit provides the opportunity for exploring new and emerging mobile devices and wireless technology including iPhone, Netbook, 3G, WiMax, and RFID. Students will critically review and understand how they can be used for current contexts such as government, business, education and social community, as well as emerging ‘wilderness’ environments with no power and wired communication. Students will appreciate the impacts of these devices and be inspired for the current and future opportunities in ICT usage trends.

Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2011 SEM-1

INB345 MOBILE DEVICES
This unit provides the opportunity for exploring new and emerging mobile devices and wireless technology including iPhone, Netbook, 3G, WiMax, and RFID. Students will critically review and understand how they can be used for current contexts such as government, business, education and social community, as well as emerging ‘wilderness’ environments with no power and wired communication. Students will appreciate the impacts of these devices and be inspired for the current and future opportunities in ICT usage trends.

Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2011 SEM-1

INB350 INTERNET PROTOCOLS AND SERVICES
An understanding of the theoretical and practical concepts of network protocols and services is highly useful and relevant to network engineers and others working in the Information Processing industries. This unit introduces you to Internet protocols and the design, implementation and operation of network based applications. Theory and practical skills taught in this unit will be useful if you intend undertaking further networking units.

Prerequisites: INB251 or ITB006 or ITB510
Antirequisites: ITB624, ITB629, ITB720, ITN525, ITN667, ITN720
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2011 SEM-1

INB350 INTERNET PROTOCOLS AND SERVICES
An understanding of the theoretical and practical concepts of network protocols and services is highly useful and relevant to network engineers and others working in the Information Processing industries. This unit introduces you to Internet protocols and the design, implementation and operation of network based applications. Theory and practical skills taught in this unit will be useful if you intend undertaking further networking units.

Prerequisites: INB251 or ITB006 or ITB510
Antirequisites: ITB624, ITB629, ITB720, ITN525, ITN667, ITN720
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2011 SEM-1

INB353 WIRELESS AND MOBILE NETWORKS
This unit provides you with the skills to be able to design and understand the issues involved with different types of wireless communications systems. It develops your knowledge of Wide Area Networks (WANs), Local Area Networks (LANs) and Personal Area Networks (PANs) as well as skills in programming for mobile handhelds. You will also develop knowledge of the different types of wireless communications technologies available and when each is most applicable in a particular situation.

Prerequisites: INB251 or ITB006
Assumed knowledge: Networks or equivalent networking knowledge is assumed knowledge
Equivalents: ITB723
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1

INB353 WIRELESS AND MOBILE NETWORKS
This unit provides you with the skills to be able to design and understand the issues involved with different types of wireless communications systems. It develops your knowledge of Wide Area Networks (WANs), Local Area Networks (LANs) and Personal Area Networks (PANs) as well as skills in programming for mobile handhelds. You will also develop knowledge of the different types of wireless communications technologies available and when each is most applicable in a particular situation.

Prerequisites: INB251 or ITB006
Assumed knowledge: Networks or equivalent networking knowledge is assumed knowledge
Equivalents: ITB723
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-1
Networks (LANs) and Personal Area Networks (PANs) as well as skills in programming for mobile handsets. You will also develop knowledge of the different types of wireless communications technologies available and when each is most applicable in a particular situation.

Prerequisites: INB251 or ITB006  
Assumed knowledge: Networks or equivalent networking knowledge is assumed knowledge  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2011 SEM-1

INB365 SYSTEMS PROGRAMMING
Systems programming is an essential part of any computer-science education. This unit uses operating system concepts to teach the foundations of systems programming and advanced concepts for producing softwares that provide services to computer hardware. Through this study, you will be able to demonstrate knowledge of the principles and techniques of process management, memory and file management, protection & security, and distributed systems.

Prerequisites: INB270 or ITB003 or INB371  
Assumed knowledge: Fundamentals of computer architecture; high level programming languages (such as C, C++, Java, Python) is assumed knowledge.  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2010 SEM-2

INB365 SYSTEMS PROGRAMMING
Systems programming is an essential part of any computer-science education. This unit uses operating system concepts to teach the foundations of systems programming and advanced concepts for producing softwares that provide services to computer hardware. Through this study, you will be able to demonstrate knowledge of the principles and techniques of process management, memory and file management, protection & security, and distributed systems.

Prerequisites: INB270 or ITB003 or INB371  
Assumed knowledge: Fundamentals of computer architecture; high level programming languages (such as C, C++, Java, Python) is assumed knowledge.  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2011 SEM-2

INB370 SOFTWARE DEVELOPMENT
Understanding software development is an integral part of the IT industry for software engineers. Software development relies on object technologies, programming techniques and numerous code libraries provided by language developers and third party vendors. Integrated Development Environments, unit testing frameworks, automated and continuous build tools and versioning systems are all becoming part of the tool set modern software developers must be familiar with. This unit is designed to introduce these technologies and techniques to show how software can be rapidly developed.

Prerequisites: INB270 or ITB003  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2010 SEM-1

INB370 SOFTWARE DEVELOPMENT
Understanding software development is an integral part of the IT industry for software engineers. Software development relies on object technologies, programming techniques and numerous code libraries provided by language developers and third party vendors. Integrated Development Environments, unit testing frameworks, automated and continuous build tools and versioning systems are all becoming part of the tool set modern software developers must be familiar with. This unit is designed to introduce these technologies and techniques to show how software can be rapidly developed.

Prerequisites: INB270 or ITB003  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2011 SEM-1

INB371 DATA STRUCTURES AND ALGORITHMS
The purpose of this unit is to ensure that you have a sound knowledge of modern programming techniques and their use in providing medium-scale software solutions. This unit will teach you to decompose a problem and produce a modular solution to a programming task. The principles to analyse algorithms for efficiency will also be introduced. In addition, you will acquire the necessary skills for you to use the tools available in common development environments, such as Microsoft Visual Studio.

Prerequisites: INB270 or ITB003  
Antirequisites: ITN723  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2010 SEM-1

INB371 DATA STRUCTURES AND ALGORITHMS
The purpose of this unit is to ensure that you have a sound knowledge of modern programming techniques and their use in providing medium-scale software solutions. This unit will teach you to decompose a problem and produce a modular solution to a programming task. The principles to analyse algorithms for efficiency will also be introduced. In addition, you will acquire the necessary skills for you to use the tools available in common development environments, such as Microsoft Visual Studio.

Prerequisites: INB270 or ITB003  
Antirequisites: ITB711, ITB702, INN371  
Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2011 SEM-2

INB371 DATA STRUCTURES AND ALGORITHMS
The purpose of this unit is to ensure that you have a sound knowledge of modern programming techniques and their use in providing medium-scale software solutions. This unit will teach you to decompose a problem and produce a modular solution to a programming task. The principles to analyse algorithms for efficiency will also be introduced. In addition, you will acquire the necessary skills for you to use the tools available in common development environments, such as Microsoft Visual Studio.
INB372 AGILE SOFTWARE DEVELOPMENT
This unit introduces you to the software development process. You will look at each of the major activities involved in developing a software system. You will also learn how to manage and control the software development process for a large project when a number of team members are involved in the development. This unit develops the professional practice of working on large software systems.

Prerequisites: INB370  Antirequisites: INN372, ITB612, ITB712  Assumed knowledge: Good programming, debugging, testing and software development skills.
Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

INB379 GAME PROJECT DESIGN
INB379 Bgie Game Project Design (P1) extends your work on the role, design, and plan of a computer game concept. The unit covers the conceptualisation and game design stages up to the game design pitch. If the project is given a green light by the assessment panel, it may be developed later in the P2 unit.

Prerequisites: Completion of 144 credit points of study  Antirequisites: ITB009  Assumed knowledge: Completion of at least 144 credit points of IT04 units, including including all first year core units is assumed.
Credit points: 12  Contact hours: 1 hour lecture - 2 hour supervisor meetings  Campus: Gardens Point  Teaching period: 2011 SEM-1 and 2011 SEM-2

INB380 GAMES PROJECT
This unit seeks to give you the opportunity to apply, under appropriate guidance, the knowledge and skills gained in your course to date and to execute a substantial related project. The unit also aims to allow you to develop the critical professional skills of working within a cross-disciplinary team and, through implementation of your project, develop the understanding of the role of careful planning, scope control and task management in ensuring that the project is successful.

Prerequisites: INB379 or INB305  Antirequisites: ITB020  Assumed knowledge: Students undertaking this unit must be enrolled in the Bachelor of Games and Interactive Entertainment  Credit points: 24  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1 and 2011 SEM-2

INB381 MODELLING AND ANIMATION TECHNIQUES
The unit will provide you with the knowledge and skills to use an industry standard graphics API to implement graphics applications and to develop a basic real time animation system using an industry standard language.

Prerequisites: INB371 and MAB281  Equivalents: ITB746  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2010 SEM-1 and 2010 SEM-2

INB374 ENTERPRISE SOFTWARE ARCHITECTURE
This unit aims to introduce you to the field of enterprise architecture. It attempts to give you a grounding in the basic knowledge and skills required by an enterprise architect. This includes a solid understanding of the IT challenges currently facing medium to large size organizations, the theory and technologies currently used to address them and an appreciation of the business imperative for which they are utilized.

Prerequisites: INB270 or ITB003  Equivalents: ITB717  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

INB374 ENTERPRISE SOFTWARE ARCHITECTURE
This unit aims to introduce you to the field of enterprise architecture. It attempts to give you a grounding in the basic knowledge and skills required by an enterprise architect. This includes a solid understanding of the IT challenges currently facing medium to large size organizations, the theory and technologies currently used to address them and an appreciation of the business imperative for which they are utilized.

Prerequisites: INB270 or ITB003  Antirequisites: ITB711, ITB702, INN371  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1
INB381 MODELLING AND ANIMATION TECHNIQUES
The development of computer graphics tools is a significant application within the IT, Games and related industries, relying heavily on software engineering methodologies. These tools, such as CAD systems, 3D modelling systems and games engines, are used in such industries as advertising, engineering, manufacturing, simulation for education and training, computer games, film special effects, etc. Modelling techniques are intrinsic to a 3D graphics system, especially one used for real time animation. With increased CPU and GPU power, the ability to animate in real time is allowing more sophisticated interaction and the merger of games/simulation and film. The unit will provide you with the knowledge and skills to use an industry standard graphics API to implement graphics applications and to develop a basic real time animation system using an industry standard language.

Prerequisites: INB371 and MAB281
Equivalents: ITB746
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2011 SEM-2

INB382 REAL TIME RENDERING TECHNIQUES
This unit will provide you with knowledge and skills in basic to advanced techniques in real-time rendering using shading languages. You will be able to implement a high-quality real-time rendering system in an industry standard API.

Prerequisites: INB371, INB381 and MAB281
Antirequisites: ITB648 and ITB649
Equivalents: ITB747
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2011 SEM-1

INB385 MULTIMEDIA SYSTEMS
This unit will explore the concepts underpinning multimedia systems and the role played by these technologies in the overall knowledge of a computer professional. You will learn to: design and develop different kinds of interactive multimedia applications; understand the bank of knowledge in cultural developments surrounding the emergence of multimedia technologies; analyse design and processes that contribute to the production of a creative work, using contemporary hardware and software technologies; develop the creative potential of temporal media forms and their placement and use within new media works; understand principles and conventions associated with the interpretation and production of meaning through interactive visual representation.

Prerequisites: INB371, INB381 and MAB281
Antirequisites: ITB648 and ITB649
Equivalents: ITB747
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2011 SEM-2

INB383 AI FOR GAMES
The aim of this unit is to provide students with an intermediate to advanced level course in computer game AI, involving algorithmic and utility-based approaches to solving a wide range of problems in the interactive entertainment and game industries. You will gain both practical and theoretical knowledge about a range of AI techniques applied in computer games. You will be able to identify and explain different types of AI agents, describe their algorithms using a pseudo code convention, identify and explain different structures and algorithms used to represent and solve a range of problems in computer game AI.

Prerequisites: INB371 or MAB281
Antirequisites: INB304 completed in semester 1 2009
Credit points: 12
Contact hours: 4 per week
Campus: Gardens Point
Teaching period: 2011 SEM-1
multimedia technologies; analyse design and processes that contribute to the production of a creative work, using contemporary hardware and software technologies; develop the creative potential of temporal media forms and their placement and use within new media works; understand principles and conventions associated with the interpretation and production of meaning through interactive visual representation.

**Prerequisites:** INB103 or ITB002  **Antirequisites:** ITB257  
**Credit points:** 12  **Contact hours:** 3 per week  
**Campus:** Gardens Point  **Teaching period:** 2010 SEM-1

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**INB386 ADVANCED MULTIMEDIA SYSTEMS**

This advanced level unit will give you high level design and development skills in some of the current and emerging areas of the new media. Web delivered applications, stand-alone systems and installations will be included. It will endeavour to give you an in-depth understanding of interactive Multimedia Systems. You will be given the theoretical basis and practical skills to motivate you in the design and creation of a state-of-the-art system in this discipline. In the process it will encourage a professional team approach appropriate to the industry environment.

**Prerequisites:** INB385 (Special considerations may apply)  
**Equivalents:** ITB259, ITN259  **Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  **Teaching period:** 2011 SEM-2

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**INB386 ADVANCED MULTIMEDIA SYSTEMS**

This advanced level unit will give you high level design and development skills in some of the current and emerging areas of the new media. Web delivered applications, stand-alone systems and installations will be included. It will endeavour to give you an in-depth understanding of interactive Multimedia Systems. You will be given the theoretical basis and practical skills to motivate you in the design and creation of a state-of-the-art system in this discipline. In the process it will encourage a professional team approach appropriate to the industry environment.

**Prerequisites:** INB385 (Special considerations may apply)  
**Equivalents:** ITB259, ITN259  **Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  **Teaching period:** 2010 SEM-2

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**INN210 DATABASES**

Databases and database systems are essential items that support many aspects of everyday life in modern society. All graduates from a course in Information Technology will be expected by employers to understand the concepts and terminology of databases. The aim of this unit is to introduce you to the structure and role of databases in modern organisations.

**Prerequisites:** INB250  **Assumed knowledge:** Basic familiarity with set theory (Venn diagrams and set

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**INN220 BUSINESS ANALYSIS**

This unit is aims to give you an introduction to the role, knowledge, and skills required of a business analyst. This unit focuses on both the trades—tools and methods used by a business analyst, as well as the soft skills—creativity and communication, both of which are critical to successful business and requirements analysis. Through lectures, cases studies and role playing activities, you will develop basic knowledge and skills required for introductory business analysis (BA).

**Prerequisites:** INB220  **Equivalents:** ITB222, ITB365, ITN222, ITN365  **Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  **Teaching period:** 2011 SEM-1

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**INN221 TECHNOLOGY MANAGEMENT**

This unit presents operational, tactical and strategic insights that support the activities central to the leadership and management of technology. These insights include project management, organisational leadership, outsourcing, planning, governance and millennium technologies. Such insights are used to inform decision-making - the core skill of any manager. Technology managers must understand the factors influencing any decision point. This unit equips students for the challenges of management and to contribute to the decision-making faced by managers and the staff who advise on these issues.

**Prerequisites:** ITN241, ITN251, ITN366,INB221  **Assumed knowledge:** INB103, ITB002 or ITB360 is assumed knowledge  **Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  **Teaching period:** 2011 SEM-1

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**INN250 FOUNDATIONS OF COMPUTER SCIENCE**

Contemporary computer-based systems are built from a wide range of technologies working at different levels of abstraction, from microprocessor hardware, to operating system and application software, to entire communications networks. At each abstraction level different techniques are needed to understand emergent properties of the system. This unit introduces some of the foundational principles commonly used to reason about the behaviour of computer-dependent systems at different levels of abstraction. Most of the techniques are derived from the field of Discrete Mathematics and are the foundation of the discipline called Computer Science.

**Prerequisites:** INB250  **Assumed knowledge:** Basic familiarity with set theory (Venn diagrams and set
INN255 SECURITY

This unit aims to give you an understanding of the major issues in information security. You will be able to identify critical information security concepts and determine the information security implications of interactions between entities. You will have knowledge of a range of techniques for protecting information, and understand the limitations of these techniques. You will be aware of international information security management standards.

**Antirequisites:** INB255, ITB161, ITB523, ITB623, ITB730  
**Equivalents:** ITN161, ITN511, ITN523, ITN663, ITN730  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

INN270 PROGRAMMING

This unit aims to give you a positive introduction to the skills required in solving computational problems and implementing solutions in a programming or scripting language. Although some theoretical aspects of computer programming are introduced briefly, the overall emphasis of the unit is programming practice. The unit emphasises generic programming concepts and related problem-solving strategies. The skills you learn in this unit will be applicable to a wide variety of commonly-used, industrially-significant programming and scripting languages.

**Antirequisites:** INB270  
**Equivalents:** ITN700  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1 and 2011 SEM-2

INN271 THE WEB

The aims of the unit are to give you a thorough understanding of what the web is, how it works and what it has to offer. Additionally, the unit aims to give you a general understanding and basic skills in developing dynamic web applications, including an appreciation of the variety of implementation technologies available. Through an understanding of how web technologies have evolved to date, you will appreciate the necessity for lifelong learning and become an insightful predictor of future developments in this area. You will learn to critically analyse technological alternatives in order to adapt to and innovate with technologies that presently do not exist. You will appreciate the business or organizational context within which web applications exist and be skilled in communicating within that environment. You will appreciate the social and ethical issues relating to web based systems including accessibility, globalization, privacy, and piracy.

**Antirequisites:** INN373, INB373  
**Assumed knowledge:** Basic programming and database knowledge is assumed.  
**Equivalents:** ITB007, ITB227, ITN007  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

INN272 INTERACTION DESIGN

The aim of this unit is to provide you with an understanding of the theory, practices and challenges associated with the development of creative interactive design and human computer interaction.

**Antirequisites:** INB272  
**Equivalents:** ITN254  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

INN280 FUNDAMENTALS OF GAME DESIGN

Modern games production is a complex process involving various businesses and organisations, working with budgets in the tens of millions. One of the roles within a game production team is that of the game designer. It is crucial that a game designer understands how to create a game world, the rules that govern game play and other high level design tasks. This subject provides an introduction to game design, by starting with high level conceptual design tasks before moving to more concrete tasks.

**Antirequisites:** ITB016 and INB280  
**Equivalents:** ITN016  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

INN281 ADVANCED GAME DESIGN

This unit will provide you with theoretical and practical knowledge of advanced games design concepts; that is, specific activities undertaken by game designers and their purpose. By the end of this unit you will have the knowledge to identify problems and suggest solutions for innovative
game designs, as well as understand how to carry out the process of designing a game yourself. You will possess practical and theoretical knowledge of game design issues such as: how to design a game level, how to design a task and reward a player for completing it, how to ensure that the player knows how to progress through the game and how to design characters whose behaviour and dialogue provide clues and prompts to the player.

**Prerequisites:** INN280  
**Antirequisites:** ITB017 and INB281  
**Equivalents:** ITN017  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INN282 GAMES LEVEL DESIGN**  
**Prerequisites:** INN281  
**Antirequisites:** INB282  
**Credit points:** 12  
**Teaching period:** 2011 SEM-1

**INN311 ENTERPRISE SYSTEMS**  
The unit presents and discusses the Enterprise Systems Lifecycle model, orienting students to the requirements of addressing total cost of ownership, change management requirements and process modelling requirements in order to achieve business benefits. Concepts of Enterprise Systems success and associated enablers and barriers are also introduced. This unit introduces the technical architecture of complex 3-tiered client server environments. It seeks to show how an integrated complex database environment meets common business needs, and yet fails to meet the total Information Systems requirements.

**Antirequisites:** INB311  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INN312 ENTERPRISE SYSTEMS APPLICATIONS**  
The aim of this unit is to introduce one of the more complex and comprehensive Enterprise Systems applications. This unit introduces the business perspective and application processes of modules (such as FI, CO, PP, MM and SD) and investigates the support provided by these systems and the integration between modules by following some of the major processes in a business. The unit enables you to experience both the business analyst view and the user's view of the system across a number of business processes.

**Antirequisites:** INB312, ITB233  
**Equivalents:** ITN233  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INN313 ELECTRONIC COMMERCE SITE DEVELOPMENT**  
This unit will enable you to specify, design, implement and maintain effective e-commerce applications. You will obtain a broad understanding of the potential of e-commerce and how it can be employed to benefit an organisation. You will get direct experience of creating an e-commerce storefront following a business to business (B to B) or business to consumer (B to C) model. You will also have an understanding of the computer systems that underpin e-commerce including payment systems and secure transactions.

**Antirequisites:** INB313 and ITB260  
**Equivalents:** ITN260  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INN320 BUSINESS PROCESS MODELLING**  
The aim of this unit is to introduce you to modern methodologies of business process modelling. A main objective is to increase your awareness of the conceptual foundation of modelling and for the capabilities of BPMN and available tools. You will learn how to use grammars and tools to build, maintain and communicate practically relevant process models.

**Antirequisites:** ITB298 and ITB320  
**Equivalents:** ITN301  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INN321 BUSINESS PROCESS MANAGEMENT**  
The aim of this unit is to introduce you to modern methodologies of Business Process Management. A main objective is to increase your awareness of the close link between business requirements and IT capabilities, and the related fundamental role of business processes. This unit also seeks to develop logical thinking, an appreciation for conceptual models, and the capability to understand and deal with complex systems.

**Antirequisites:** INB321  
**Equivalents:** ITN298  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INN322 INFORMATION SYSTEMS CONSULTING**  
The aim of the unit is to develop your skills in the consulting engagement process. This unit will give you an appreciation of the management of consulting practices and an understanding of the consulting sector generally. This unit presents the tactical and strategic issues involved in management consulting, and in particular: client engagement. In the unit there is an emphasis on Information Systems (IS) related work. IS constitutes a substantial portion of consulting activity and cuts across all areas of business expertise. The unit examines the dynamics of IS consulting within the context of large consulting firms and familiarises students with the consulting engagement lifecycle.

**Antirequisites:** INN335, ITN332, INB322  
**Assumed knowledge:** Good knowledge of professional oral and
written communication practices and team work processes is assumed. Equivalents: ITN273  Credit points: 12
Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

INN323 SMART SERVICES
This unit gives you the opportunity to apply, under appropriate guidance, the knowledge and skills gained in your course to date and to execute a substantial development project. The ability to apply technical knowledge and skills to real-life situations is essential for information technology professionals. A substantial project, under academic supervision, will develop your initiative and ability to apply your knowledge and skills in a professional capacity. Completing the project will also enable you to appreciate the complementary nature of the course material in total, particularly the need for careful project management.

Antirequisites: INB323  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point

INN330 INFORMATION MANAGEMENT
The aim of this unit is to provide you with an awareness of the activities in which IM professionals are engaged within various organisational contexts. You will use case studies and introduce yourself to the strategic and analytic elements that comprise information management activities. These activities include the alignment of enterprise information and business planning, enterprise information policy, evaluation of information resources & systems and applications of the information inventory.

Antirequisites: INB330  Equivalents: ITN266  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

INN331 MANAGEMENT ISSUES FOR INFORMATION PROFESSIONALS
The overall aim is to enable you to identify and resolve selected key management issues within a particular type of organisation of your choice. Using an integrated approach the subject draws from the field of organisational behaviour, business management literature, IT-management, and other readings appropriate to your interest. A further emphasis will be on case studies of actual practices in the type of organisation or enterprise environment setting that you have chosen to investigate.

Antirequisites: INB331  Equivalents: ITN274  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

INN332 INFORMATION RETRIEVAL
The ability to quickly learn and expertly use new information resources and concepts is a vital skill for the modern day library and information professional. This unit will help you to understand the structure of the information environment, to reflect upon the information resources you discover, and to develop the ability to find appropriate information for future problem solving. You will develop your skills in identifying, accessing, evaluating and retrieving information resources to meet specific needs. The unit will also help you develop skills in teamwork and oral and written communication.

Antirequisites: INN335, ITN322  Equivalents: ITN273  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

INN333 INFORMATION PROGRAMS
The unit encompasses the planning, implementation and evaluation of an information product or service for a particular community of use. The community may be anything from a specialised professional or business group, to community members with special needs etc. Emphasis is on identification of user needs, creating an information product or program and marketing or promoting its use. The unit also explores the impact of web 2.0 technologies (e.g. blogs, wikis, facebook, YouTube, flickr) and concepts such as creative commons and open access on program and product design and delivery are explored.

Antirequisites: ITN330  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

INN334 INFORMATION ISSUES AND VALUES
The overall aim is to enable you to identify and critically discuss key issues (ie social, economic, political, cultural, legal, psychological) that impact upon the role and use of information and IT in different contexts of the information society (ie academic, professional, personal). You will critically consider the role of information and IT professionals in dealing ethically and legally with the many issues evolving within the emerging information society. The unit draws from the fields of psychology, business, library and information science, IT, education, sociology and law.

Antirequisites: INB334  Equivalents: ITN330  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point

INN335 INFORMATION RESOURCES
This unit will help you to understand the structure of the information environment, to reflect upon the information resources you discover, and to develop the ability to find appropriate information for future problem solving. You will develop your skills in identifying, accessing, evaluating and
retrieving information resources to meet specific information needs. The unit will also help you develop skills in teamwork and oral and written communication.

**Antirequisites:** INB335, INN332, ITN273  
**Equivalents:** ITN332  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INN340 DATABASE DESIGN**

The aim of this unit is to help you develop your knowledge, understand a formal specification tool (ORM) for modelling information systems unambiguously and to apply this formal technique to conceptualise information systems found in many real world application domains.

**Antirequisites:** INB340  
**Assumed knowledge:** INN210 or ITN200 is assumed knowledge  
**Equivalents:** ITN229  
**Credit points:** 12  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INN341 SOFTWARE DEVELOPMENT WITH ORACLE**

This unit aims to develop a sound understanding of database creation, installation, administration, management, security, back up/recovery and application development. The unit aims to develop practical skills in each of these elements, using appropriate Oracle software.

**Prerequisites:** INN210 or ITN200 or INN122 or ITB004  
**Antirequisites:** INB341, ITB223  
**Equivalents:** ITN223  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INN342 ENTERPRISE DATA MINING**

This unit will provide a comprehensive theoretical coverage of various topics in data and web mining. In addition there will be a significant practical component using hands on tools to solve real-world problems. Specifically, we will consider techniques from machine learning, data mining, text mining, and information retrieval to extract useful knowledge from data which are used for business intelligence, document databases, site management, personalization, and user profiling. This unit will first cover a detailed overview of the mining process and techniques, and then concentrate on applications of these techniques to web, e-commerce, document databases and data from advanced applications.

**Prerequisites:** INN210 or INN340 or INN122  
**Antirequisites:** ITB239, INB342  
**Equivalents:** ITB239  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INN343 ADVANCED DATA MINING AND DATA WAREHOUSING**

Data warehousing and mining have been well recognized as the dominating techniques for using databases in the future. This unit discusses the concepts, structures and algorithms of data warehousing and mining, e.g., data architecture and quality, data warehouse and data mart, data cubes, OLAP, patterns, association rules and decision tables. Through this study, students will be able to demonstrate knowledge and skills of designing, developing and implementing data warehousing components in SQL environments. It also enables students to design systems and tools that provide services to data management and analysis, such as data warehouses, data mining tools, business intelligence based systems, smart information use systems, and data processing systems.

**Prerequisites:** INN210  
**Antirequisites:** INB343  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INN344 SEARCH ENGINE TECHNOLOGY**

**Antirequisites:** INB344  
**Assumed knowledge:** Intermediate programming experience with intermediate-level knowledge of data structures and algorithms  
**Credit points:** 12  
**Campus:** Gardens Point

**INN345 MOBILE DEVICES**

This unit provides the opportunity for exploring new and emerging mobile devices and wireless technology including iPhone, Netbook, 3G, WiMax, and RFID. Students will critically review and understand how they can be used for current contexts such as government, business, education and social community, as well as emerging ‘wilderness’ environments with no power and wired communication. Students will appreciate the impacts of these devices and be inspired for the current and future opportunities in ICT usage trends.

**Antirequisites:** INB345  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INN346 ENTERPRISE 2.0**

This unit will help you to acquire the skills and knowledge required to critically explore and utilise applications within diverse contexts and organisations.

**Antirequisites:** INB346  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INN347 WEB 2.0 APPLICATIONS**

Web 2.0 applications enable the user to be control. The unit will provide the opportunity for students to explore web 2.0 applications including blogs, wikis, social networking, social tagging, podcasts, gaming, storytelling and virtual worlds such as second life. Students will critically consider the many and varied web applications and how they can be used in different contexts such as government, small and medium size businesses, non-profit organisations,
educational institutions and community groups.

**Antirequisites:** INB347  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

**INN350 INTERNET PROTOCOLS AND SERVICES**

An understanding of the theoretical and practical concepts of network protocols and services is highly useful and relevant to network engineers and others working in the Information Processing industries. This unit introduces you to Internet protocols and the design, implementation and operation of network based applications. Theory and practical skills taught in this unit will be useful if you intend undertaking further networking units.

**Antirequisites:**

- INB350, ITB624, ITB629, ITB720, ITN524, ITN529, ITN667
- Assumed knowledge: INN251 is assumed knowledge.
- Equivalents: ITN720  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

**INN351 UNIX NETWORK ADMINISTRATION**

The aim of this unit is to provide students with a working knowledge of the technical aspects and theory of network administration and management. The unit uses the Unix environment as the learning platform for attaining technical skills and for the development of problem solving skills necessary to be a successful networking professional.

**Prerequisites:**

- INN350
- Antirequisites: INB351
- Equivalents: ITN525, ITN535, ITN721  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

**INN352 NETWORK PLANNING**

The unit draws together subject matter from a number of different networking-related areas. The aim of the unit is to assemble the previously acquired knowledge and techniques and apply it in a cohesive fashion to the task of network planning.

**Antirequisites:**

- INB352, ITN722, ITN551, ITB628, ITB551, ITB722, ENN523  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

**INN353 WIRELESS AND MOBILE NETWORKS**

This unit provides you with the skills to be able to design and understand the issues involved with different types of wireless communications systems. It develops your knowledge of Wide Area Networks (WANs), Local Area Networks (LANs) and Personal Area Networks (PANs) as well as skills in programming for mobile handsets. You will also develop knowledge of the different types of wireless communications technologies available and when each is most applicable in a particular situation.

**Antirequisites:**

- INB353  Assumed knowledge: INN251 is assumed knowledge.
- Equivalents: ITB723, ITN723  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

**INN355 CRYPTOLOGY AND PROTOCOLS**

Cryptographic techniques are widely used to implement computer and network security. As an IT security professional you may be required either to evaluate or implement information systems using cryptographic algorithms and protocols. This elective unit covers the main cryptographic technical concepts including encryption, digital signatures and cryptographic protocols.

**Antirequisites:**

- INB355  Assumed knowledge: Maths B or equivalent (e.g. MAB105) is assumed knowledge.
- Equivalents: ITB548, ITB566, ITB646, ITB732, ITN566, ITN512, ITN581, ITN732  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

**INN365 SYSTEMS PROGRAMMING**

Systems programming is an essential part of any computer-science education. This unit uses operating system concepts to teach the foundations of systems programming and advanced concepts for producing softwares that provide services to computer hardware. Through this study, you will be able to demonstrate knowledge of the principles and techniques of process management, memory and file management, protection & security, and distributed systems.

**Prerequisites:**

- INN270 or ITB003 or INB270  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

**INN370 SOFTWARE DEVELOPMENT**

Understanding software development is an integral part of the IT industry for software engineers. Software development relies on object technologies, programming techniques and numerous code libraries provided by language developers and third party vendors. Integrated Development Environments, unit testing frameworks, automated and continuous build tools and versioning systems are all becoming part of the tool set modern software developers must be familiar with. This unit is designed to introduce these technologies and techniques to
show how software can be rapidly developed.

**Antirequisites:** INB370  **Assumed knowledge:** INN270 is assumed knowledge.  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-1

**INN371 DATA STRUCTURES AND ALGORITHMS**
The purpose of this unit is to ensure that you have a sound knowledge of modern programming techniques and their use in providing medium-scale software solutions. This unit will teach you to decompose a problem and produce a modular solution to a programming task. The principles to analyse algorithms for efficiency will also be introduced. In addition, you will acquire the necessary skills for you to use the tools available in common development environments, such as Microsoft Visual Studio.

**Prerequisites:** INN270 or INB270  **Antirequisites:** INB371, INB372, TB702, ITB711, ITN711  **Equivalents:** ITN702  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-1

**INN372 AGILE SOFTWARE DEVELOPMENT**
This unit examines the theory, techniques, and technologies associated with the specification, design, construction and testing of software systems. It integrates specialist knowledge from previous units to prepare you to become a professional software engineer. By the end of this unit, you will have a firm understanding of the principles of software development processes, and the detailed practices of a modern agile methodology. This will extend and refine your knowledge of the traditional software development lifecycle and testing, and putting your new knowledge into practice. You will work together in small teams of four to six people to build a project using an agile methodology and using test-driven development strategies. You will thus be well-prepared to become a member of a professional development team.

**Prerequisites:** INN370  **Antirequisites:** INB372, ITB712, ITN662, ITN712, ITB612  **Assumed knowledge:** Good programming, debugging, testing and software development skills.  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-2

**INN373 WEB APPLICATION DEVELOPMENT**
This unit will provide you with an understanding of the issues, structure and technologies used for developing web-based systems. The unit will provide you with the theoretical and practical skills needed to develop enterprise critical applications designed with an n-tier architecture using state of the art technologies. A comparative technology approach is taken, including an analysis of how web technologies have evolved to date, in order to identify common themes and to better enable you to comprehend and critically evaluate future web technology offerings.

**Prerequisites:** INN271  **Antirequisites:** INB373  **Assumed knowledge:** INN271 is assumed knowledge.  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-1

**INN374 ENTERPRISE SOFTWARE ARCHITECTURE**
This unit introduces you to the field of enterprise and component-based architecture. It provides a grounding in the knowledge and skills required by a software architect to address the future needs of business IT systems. These include a solid understanding of the IT challenges currently facing medium to large organizations, the theory and technologies used to address them, and an appreciation of the business needs that motivate their use. To enable you to address these challenges you will be exposed to system design methods, and the current technologies, that allow the resulting systems to be adaptive to changing business needs.

**Prerequisites:** INN270, INB270, ITN700, or ITB003  **Antirequisites:** INB374 and ITB717  **Equivalents:** ITN717  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-2

**INN381 MODELLING AND ANIMATION TECHNIQUES**
The development of computer graphics tools is a significant application within the IT, Games and related industries, relying heavily on software engineering methodologies. These tools, such as CAD systems, 3D modelling systems and games engines, are used in such industries as advertising, engineering, manufacturing, simulation for education and training, computer games, film special effects, etc. Modelling techniques are intrinsic to a 3D graphics system, especially one used for real time animation. With increased CPU and GPU power, the ability to animate in real time is allowing more sophisticated interaction and the merger of games/simulation and film. The unit will provide you with the knowledge and skills to use an industry standard graphics API to implement graphics applications and to develop a basic real time animation system using an industry standard language.

**Prerequisites:** (INB371 or INN371) and (MAB281 or MAN281)  **Antirequisites:** INB381, ITB441, ITB460, ITB648, ITB649, ITB746  **Equivalents:** ITN440, ITN460, ITN746  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-2

**INN382 REAL TIME RENDERING TECHNIQUES**
This unit will provide you with knowledge and skills in basic to advanced techniques in real-time rendering using shading languages. You will be able to implement a high-quality real-time rendering system in an industry standard...
INN383 AI FOR GAMES
The aim of this unit is to provide students with an intermediate to advanced level course in computer game AI, involving algorithmic and utility-based approaches to solving a wide range of problems in the interactive entertainment and game industries. You will gain both practical and theoretical knowledge about a range of AI techniques applied in computer games. You will be able to identify and explain different types of AI agents, describe their algorithms using a pseudo code convention, identify and explain different structures and algorithms used to represent and solve a range of problems in computer game AI.

Prerequisites: INB383  Assumed knowledge: MAN281, INN371 or equivalent is assumed knowledge  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

INN385 MULTIMEDIA SYSTEMS
This unit will explore the concepts underpinning multimedia systems and the role played by these technologies in the overall knowledge of a computer professional. You will learn to: design and develop different kinds of interactive multimedia applications; understand the bank of knowledge in cultural developments surrounding the emergence of multimedia technologies; analyse design and processes that contribute to the production of a creative work, using contemporary hardware and software technologies; develop the creative potential of temporal media forms and their placement and use within new media works; understand principles and conventions associated with the interpretation and production of meaning through interactive visual representation.

Prerequisites: INB385  Assumed knowledge: INN271 is assumed knowledge. INN272 should be enrolled in the same teaching period.  Equivalents: ITN257, ITB257  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

INN386 ADVANCED MULTIMEDIA SYSTEMS
This advanced level unit will give you high level design and development skills in some of the current and emerging areas of the new media. Web delivered applications, stand-alone systems and installations will be included. It will endeavour to give you an in-depth understanding of interactive Multimedia Systems. You will be given the theoretical basis and practical skills to motivate you in the design and creation of a state-of-the-art system in this discipline. In the process it will encourage a professional team approach appropriate to the industry environment.

Prerequisites: INN385  Antirequisites: INB386 and ITB259  Equivalents: ITN259  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

INN401 HONOURS DISSERTATION 1
Research is about contributing to scientific knowledge. You will be expected to make such a contribution in your honours dissertation, although the size of that contribution will probably be relatively small as this is likely to be your first research project. The principle aim, however, is to provide you with basic research skills that you will be able to apply again in the future in other contexts, be they in a higher research degree, or applied to real-world problems in an industry setting. You will learn the types of processes, creativity and analytical thinking that leads to such scientific advances and how to communicate such findings in a rigorous scientific manner.

Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN402 HONOURS DISSERTATION 2
Research is about contributing to scientific knowledge. You will be expected to make such a contribution in your honours dissertation, although the size of that contribution will probably be relatively small as this is likely to be your first research project. The principle aim, however, is to provide you with basic research skills that you will be able to apply again in the future in other contexts, be they in a higher research degree, or applied to real-world problems in an industry setting. You will learn the types of processes, creativity and analytical thinking that leads to such scientific advances and how to communicate such findings in a rigorous scientific manner.

Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN403 HONOURS DISSERTATION 3
Research is about contributing to scientific knowledge. You will be expected to make such a contribution in your honours dissertation, although the size of that contribution will probably be relatively small as this is likely to be your first research project. The principle aim, however, is to provide you with basic research skills that you will be able to apply again in the future in other contexts, be they in a higher research degree, or applied to real-world problems in an industry setting. You will learn the types of processes, creativity and analytical thinking that leads to such scientific advances and how to communicate such findings in a rigorous scientific manner.
Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN404 HONOURS DISSERTATION 4
Research is about contributing to scientific knowledge. You will be expected to make such a contribution in your honours dissertation, although the size of that contribution will probably be relatively small as this is likely to be your first research project. The principle aim, however, is to provide you with basic research skills that you will be able to apply again in the future in other contexts, be they in a higher research degree, or applied to real-world problems in an industry setting. You will learn the types of processes, creativity and analytical thinking that leads to such scientific advances and how to communicate such findings in a rigorous scientific manner.

Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN500 PRINCE2 (R) PROJECT MANAGEMENT
The majority of information technology (IT) initiatives, such as systems developments and implementations, are introduced into organizations through projects, and the success of these projects depends on their effective management. This unit covers the integration of the multi-disciplinary skills that students would have acquired at stage in the course required to manage IT projects successfully. Specifically, it covers the administrative, technical, communication and socio-political demands placed on modern IT project managers. The unit covers practical, relevant and topical IT project management issues delivered through workshops and lectures.

Prerequisites: Completion of 36 credit points of Postgraduate units (INN% or PUN% or GSN%)
Antirequisites: INB123, ITB365, ITB272  Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-1 and 2011 SEM-2

INN530 INFORMATION LITERACY EDUCATION
This unit aims to develop your understanding of information literacy and information literacy education and how these concepts can be applied according to the needs of client group(s) of your choice. As a professional you may engage in policy development, advocacy, research, developing and implementing instruction programs or managing staff who undertake these activities. New professionals and other educators can become heavily involved in teaching information literacy and skills to learners in a range of environment including academic, workplace or community programs. This unit provides the opportunity for theoretical and practical work in contexts of your choice to suit your individual interests.

Prerequisites: INN330  Antirequisites: ITN278  Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-1

INN531 INFORMATION SERVICES
The primary aim of this unit is a capstone experience for you, to prepare you for entry to your profession. While the primary aim is the development of your professional skills, you will also have the opportunity to listen to and learn from real world work experiences from industry experts working in this field. You will have the opportunity to reflect on how your studies or previous life experiences have prepared you for this type of work. Through this observation and reflection process you will develop an introductory knowledge of the principles of web content management as they are applied in organisations today. You will develop an appreciation of the tasks, issues, practices, principles and policies required for dynamic forms of web architecture, and you will begin to explore the development of skills required to work with and manage content management systems.

Prerequisites: INN330  Antirequisites: ITN278  Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-1

INN532 INFORMATION SERVICES 2
This unit seeks to develop your understanding of the key issues involved in developing and managing a contemporary and innovative information service. In particular you will be given the opportunity to become familiar with the methods and tools used in the selection and acquisition of information resources and the creation of information programmes to meet the specific needs of a community or client group. You will also be developing a working knowledge of the skills and techniques essential for critically evaluating the resources and programmes created.

Prerequisites: INN330  Antirequisites: ITN278  Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-1
INN540 USER EXPERIENCE
Understanding users and their experiences is a vital dimension of IT professionals' competence and ethical awareness. People experience information and technology in a wide range of contexts, increasingly digital environments on a daily basis. Understanding people's experience provides an important foundation for design and evaluation of a wide range of technologies and user contexts. This subject provides an opportunity for you to explore your own experience as user and also the experience of others. You will explore the experience of others, through engaging with them directly or via technology, and by engaging with a wide range of resources that inform us about users' experiences. The aim of this unit is to introduce students to understanding and investigating users' experiences in contexts that interest them, with particular emphasis on digital environments.
Assumed knowledge: 24 credit points of INN units
Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

INN546 MAJOR ISSUES IN HEALTH TECHNOLOGY
This unit introduces health practitioners, health technologists and information specialists to major issues related to managing Health Technology enabling better health outcomes in the sector and the community. Technology types covered will include, inter alia, user devices, clinical and administrative systems, and diagnostic and treatment systems across modalities as well as support systems such as asset management, tracking, and logistics.
Credit points: 12  Campus: Gardens Point

INN550 COMPUTER FORENSICS
This unit aims to give you instruction in the principles of Computer Forensics, and the principles that need to be observed by the computer forensic investigator in order to successfully identify, secure, analyse and present digital evidence. In this advanced level elective unit we focus on the principles which direct the collection, analysis and presentation of the electronic or digital evidence available to a forensic investigator, and the techniques that are used in order to ensure that those principles are met for evidentiary requirements.
Assumed knowledge: INN255 is assumed knowledge. INN250 and INN251 should be enrolled in the same teaching period.  Equivalents: ITN774  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

INN570 INTERNATIONALISATION OF SOFTWARE
Software is now a global market, and developers need to be able to produce applications that can be used in many different cultures and nations. There is a significant body of enabling technology that allows efficient and cost effective development of applications that can be used in diverse contexts. Understanding the principles and the technologies involved in internationalisation and localisation is essential for companies seeking to go global or that are already global.
Credit points: 12  Campus: Gardens Point

INN600 ADVANCED READINGS 1
The aim of this unit is to broaden your understanding of potential research topics and methods and support you in developing essential skills that enable clarity and focus in investigating IT research; rigour in evaluating claims and accuracy in your understanding of domain problems, related theories and methodologies appropriate to your specialist area.
Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge.
Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN601 ADVANCED READINGS 2
The aim of this unit is to broaden your understanding of potential research topics and methods and support you in developing essential skills that enable clarity and focus in investigating IT research; rigour in evaluating claims and accuracy in your understanding of domain problems, related theories and methodologies appropriate to your specialist area.
Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge.
Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN602 ADVANCED READINGS 3
The aim of this unit is to broaden your understanding of potential research topics and methods and support you in developing essential skills that enable clarity and focus in investigating IT research; rigour in evaluating claims and accuracy in your understanding of domain problems, related theories and methodologies appropriate to your specialist area.
Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge.
Credit points: 12  Campus: Gardens Point  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN605 ADVANCED RESEARCH 1
The aim of this unit is to broaden your understanding of potential research topics and methods and support you in
developing essential skills that enable clarity and focus in investigating IT research; rigour in evaluating claims and accuracy in your understanding of domain problems, related theories and methodologies appropriate to your specialist area.

**INN606 ADVANCED RESEARCH 2**

The aim of this unit is to broaden your understanding of potential research topics and methods and support you in developing essential skills that enable clarity and focus in investigating IT research; rigour in evaluating claims and accuracy in your understanding of domain problems, related theories and methodologies appropriate to your specialist area.

**Assumed knowledge:** Completion of 48 credit points of Postgraduate IT units is assumed knowledge. **Credit points:** 12 **Campus:** Gardens Point **Teaching period:** 2011 SEM-1 and 2011 SEM-2

**INN607 ADVANCED RESEARCH 3**

The aim of this unit is to broaden your understanding of potential research topics and methods and support you in developing essential skills that enable clarity and focus in investigating IT research; rigour in evaluating claims and accuracy in your understanding of domain problems, related theories and methodologies appropriate to your specialist area.

**Assumed knowledge:** Completion of 48 credit points of Postgraduate IT units is assumed knowledge. **Credit points:** 12 **Campus:** Gardens Point **Teaching period:** 2011 SEM-1 and 2011 SEM-2

**INN610 CASE STUDIES IN BUSINESS PROCESS MANAGEMENT**

This unit seeks to develop business process analysts capable of working as consultants. It seeks to develop the generic skills expected in graduates and in particular to develop better interpersonal skills, better written and oral communication skills, skills in conflict resolution, negotiation, project planning and project management. You will learn to identify, analyse and consider interdependencies. You will increase your awareness for the challenges of teamwork. The projects also allow you to apply the theoretical knowledge gained in the pre-requisite unit to real practical problems. Overall, you will get insights into the skills, tools and services of consultants.

**Prerequisites:** INN320 or INN321 with a grade of 6 and a GPA of at least 6 **Credit points:** 12 **Campus:** Gardens Point **Teaching period:** 2011 SEM-2

**INN650 ADVANCED NETWORK MANAGEMENT**

Computer networks are an essential component of modern civilization. Students undertaking this unit will have previously learned the fundamental theory and practical aspects of network administration and management. This unit builds upon that foundation and extends the knowledge and skills to enterprise wide networks which are significantly more complex than small networks. Security of enterprise wide networks is an important issue in this unit, along with network management systems.

**Prerequisites:** INB351 or INN351 **Assumed knowledge:** INB351, INN351, ITN721 or ITB721 is assumed knowledge. **Equivalents:** ITN771 **Credit points:** 12 **Campus:** Gardens Point **Teaching period:** 2011 SEM-1

**INN651 SECURITY TECHNOLOGIES**

This unit aims to provide you with the knowledge to investigate and determine the security requirements for computer systems and networks and to understand the underlying issues and problems. In addition, this unit aims to enable you to investigate, evaluate and select the most appropriate security technologies for specific situations.

**Antirequisites:** ITB731, ITN731 **Assumed knowledge:** It is an advantage that the student has knowledge of the basic principles and technologies for information security, such as those taught in INN255 Security. **Credit points:** 12 **Campus:** Gardens Point **Teaching period:** 2011 SEM-2

**INN652 ADVANCED CRYPTOLOGY**

Cryptography forms a core discipline in the study of information security. This unit concentrates on the latest developments in cryptography. This is a specialised unit that prepares postgraduate students for research in cryptography. The aim of the unit is to explore and understand recent developments in the theory and practice of cryptography. The unit provides fundamental knowledge for students seeking to undertake postgraduate research or work in the area of information security, especially involving cryptography.

**Credit points:** 12 **Campus:** Gardens Point **Teaching period:** 2011 SEM-2

**INN690 MINOR PROJECT 1**

The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well written project report.

**Assumed knowledge:** Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge.
Credit points: 12    Campus: Gardens Point    Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN691 MINOR PROJECT 2
The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well written project report.

Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge.

Credit points: 12    Campus: Gardens Point    Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN692 MINOR PROJECT 3
The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well written project report.

Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge.

Credit points: 12    Campus: Gardens Point    Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN693 PROJECT
The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well written project report.

Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge.

Credit points: 24    Campus: Gardens Point    Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN694 PROJECT 1
This unit enables you to carry out an independent or group project addressing a research question or practical problem in theoretical or practical information technology. It provides an opportunity to individualise your studies by concentrating on a specific problem. The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well written project report.

Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge. Students must enrol in INN694-2 to receive a result.

Other requisites: Students must complete INN694-2 to receive a grade for this unit Credit points: 12    Campus: Gardens Point    Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN694 PROJECT
This unit enables you to carry out an independent or group project addressing a research question or practical problem in theoretical or practical information technology. It provides an opportunity to individualise your studies by concentrating on a specific problem. The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well written project report.

Prerequisites: INN694-1    Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge. Credit points: 12    Campus: Gardens Point    Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN695 MAJOR PROJECT
The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well written project report.

Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge.

Credit points: 48    Campus: Gardens Point    Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN696 MAJOR PROJECT 1
The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well written project report.

Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge. Students must enrol in INN696-2 to receive a result.

Other requisites: Students must complete INN696-2 to receive a grade for this unit Credit points: 24    Campus: Gardens Point    Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN696 MAJOR PROJECT 2
The aims of this unit are to help you acquire necessary skills in a problem domain, and to enable you to conduct a well-defined project with specific outcomes within a precisely defined project plan. This unit also teaches you how to prepare a well written project report.

Prerequisites: INN696-1    Assumed knowledge: Completion of at least 48 credit points of Postgraduate level IT units is assumed knowledge. Credit points: 24
Campus: Gardens Point Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INN700 INTRODUCTION TO RESEARCH
This unit is aimed at students undertaking a major research project (see corequisites above). In order to pursue such a project, you must have some insight into the range of possible approaches to research available. Before commencing the research proper, it is necessary to review related literature in depth and prepare a detailed proposal outlining the research question, design and project plan. Quality control and good project management must be exercised throughout the research project. Main items of assessment pertain to each student’s unique, research project being pursued in parallel. This unit aims to give you insight into the range of possible approaches to research, to develop the skills needed to prepare your literature review and research proposal and to assist you in planning and managing time and resources.

Assumed knowledge: Must be con-currently enrolled in either full-time or part-time Higher Research Degree (i.e. PhD, ProDoc, Research Masters, or Honours) or, if coursework masters then a 48cp research project. In all instances, must have a formal Principle Supervisor. Equivalents: ITN100 Other requisites: Unit Coordinator Approval and a course GPA of at least 5.5 is required to enrol. Credit points: 12 Campus: Gardens Point Teaching period: 2011 SEM-1 and 2011 SEM-2

INN701 ADVANCED RESEARCH TOPICS
All research students need an appreciation of a wide variety of potential approaches to conducting research and an understanding of the key issues that bear on such an approach. INN701 is an advanced unit aimed at research students who are soon to complete a detailed, rigorous and defensible design of their intended research project (e.g. Stage 2). Research students, coursework masters and honours students intending undertaking a major research project should pursue INN701 either subsequent to, or in parallel with INN700.

Prerequisites: INN700 which can be studied in the same teaching period as INN701 Assumed knowledge: INN700 may be waived for invited, advanced, high-performing undergrads Equivalents: ITN269 Other requisites: GPA of at least 5.5 is required to enrol Credit points: 12 Campus: Gardens Point Teaching period: 2011 SEM-1 and 2011 SEM-2

KIB101 VISUAL COMMUNICATION
Communication Design deals with visual communication and the creation of meaning through images. This unit will introduce you to the principles, production and presentation of visual design and communication.
Equivalents: KIB801 Credit points: 12 Contact hours: 4 per week Campus: Kelvin Grove and Caboolture Teaching period: 2011 SEM-1 and 2011 SEM-2

KIB102 VISUAL INTERACTIONS
This unit further develops interface design skills for communication technologies including design priorities, interaction, visual systems, refinement of concepts, project analysis and problem solving through presentation models.
Prerequisites: KIB101 or KIB801 or KPB101 or KPB150 or KPB155 Equivalents: KIB802 Credit points: 12 Contact hours: 3.5 per week Campus: Kelvin Grove Teaching period: 2011 SEM-2

KIB103 INTRODUCTION TO WEB DESIGN AND DEVELOPMENT
This unit provides an introduction to theories and skills underpinning the application of multimedia technology with the Creative Industries, providing a foundation of conceptual and practical skills related to contemporary modes of electronic hypermedia production, communication and publishing.
Antirequisites: INB271, KIP403 Equivalents: KIB807, KKB007, KKB818 Credit points: 12 Contact hours: 3 per week Campus: Kelvin Grove Teaching period: 2011 SEM-1

KIB105 ANIMATION AND MOTION GRAPHICS
This unit provides an introduction to animation and motion graphics concepts and practices, with an emphasis on principles of design in motion
Equivalents: KIB804 Credit points: 12 Contact hours: 3 per week Campus: Kelvin Grove Teaching period: 2011 SEM-2
KIB105 ANIMATION AND MOTION GRAPHICS
This unit provides an introduction to animation and motion graphics concepts and practices, with an emphasis on principles of design in motion.
Equivalents: KIB804  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-2

KIB108 ANIMATION HISTORY AND PRACTICES
The unit is an introductory examination of the development of animation. It addresses social, cultural, economic and technological themes that have shaped notable practitioners and established animation as a significant medium for the expression of popular culture, artistic experiment and philosophical, social and political comment.
Equivalents: KIB825  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-1

KIB108 ANIMATION HISTORY AND PRACTICES
This unit addresses theoretical issues associated with non-linear story structures and interactive narratives through the analysis of game structures, the creation of original game ideas and the application of techniques of information design to the structuring of non-narrative content. Addressing the creative and analytical roles of writers, conceptual designers and information designers in the context of interactive digital media and the Creative Industries.
Equivalents: KIB816  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-1

KIB201 CONCEPT DEVELOPMENT FOR GAME DESIGN AND INTERACTIVE MEDIA
This unit addresses theoretical issues associated with non-linear story structures and interactive narratives through the analysis of game structures, the creation of original game ideas and the application of techniques of information design to the structuring of non-narrative content. Addressing the creative and analytical roles of writers, conceptual designers and information designers in the context of interactive digital media and the Creative Industries.
Equivalents: KIB816  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-1

KIB201 CONCEPT DEVELOPMENT FOR GAME DESIGN AND INTERACTIVE MEDIA
This unit addresses theoretical issues associated with non-linear story structures and interactive narratives through the analysis of game structures, the creation of original game ideas and the application of techniques of information design to the structuring of non-narrative content. Addressing the creative and analytical roles of writers, conceptual designers and information designers in the context of interactive digital media and the Creative Industries.
Equivalents: KIB816  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-1

KIB202 ENABLING IMMERSION
As creative practitioners within a highly networked technological society, it is important to develop a critical understanding of how the application of technology influences modes of communication, production processes and creative practices, particularly within the Creative Industries. This unit provides an introductory overview of the philosophies underlying applications of technology, and critically examines current applications in order to explore creative visions of future technology.
Prerequisites: KIB201  Equivalents: KIB814  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-2

KIB202 ENABLING IMMERSION
As creative practitioners within a highly networked technological society, it is important to develop a critical understanding of how the application of technology influences modes of communication, production processes and creative practices, particularly within the Creative Industries. This unit provides an introductory overview of the philosophies underlying applications of technology, and critically examines current applications in order to explore creative visions of future technology.
Prerequisites: KIB201  Equivalents: KIB814  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-1

KIB203 INTRODUCTION TO 3D COMPUTER GRAPHICS
The field of 3D computer graphics has grown from being a highly specialist field, supported by large film studios, into a vast and growing industry. Throughout film and television, scientific visualization, industrial and architectural design, physical modelling, animation and gaming; 3D visualisation has become a significant contributor to the construction of virtual worlds and the simulation of physical environments. This unit provides an introduction to the world of 3D graphics, paying particular attention to pre-production techniques, project management, 3D modelling techniques, and designing virtual environments. It establishes a foundation for advanced study in subsequent units on Real-time Computer Graphics and Virtual Environments. Theoretical understandings gained through lectures will be supplemented with technical skills in workshops, and applied to the production of 3D environments in design studios.
Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-1
KIB203 INTRODUCTION TO 3D COMPUTER GRAPHICS
The field of 3D computer graphics has grown from being a highly specialist field, supported by large film studios, into a vast and growing industry. Throughout film and television, scientific visualization, industrial and architectural design, physical modelling, animation and gaming; 3D visualisation has become a significant contributor to the construction of virtual worlds and the simulation of physical environments. This unit provides an introduction to the world of 3D graphics, paying particular attention to pre-production techniques, project management, 3D modelling techniques, and designing virtual environments. It establishes a foundation for advanced study in subsequent units on Real-time Computer Graphics and Virtual Environments. Theoretical understandings gained through lectures will be supplemented with technical skills in workshops, and applied to the production of 3D environments in design studios.

Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-1

KIB214 DESIGN FOR INTERACTIVE MEDIA
Designing for contemporary media requires a sophisticated understanding of how we effectively interact with new technologies, software applications, displays and environments. This unit focuses on the field of interaction design and user experience design. It develops an understanding of the theories, methods, and processes employed by Interaction Designers through a series of lectures and tutorials. These principles are then applied to authentic design briefs within design studios.

Prerequisites: KIB102 or KIB202 or KIB802 or KIP402  Equivalents: KIB210  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-1

KIB214 DESIGN FOR INTERACTIVE MEDIA
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Prerequisites: KIB102 or KIB202 or KIB802 or KIP402  Equivalents: KIB210  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-1

KIB220 ANIMATION PRODUCTION
Animation employs a studio-based production process that introduces you to workflows, practice-based investigations, critical thinking and problem-based learning. Animation: Studio Production will support you to build animation studio production skills by introducing design briefs, networking, teamwork and collaboration This unit will focus particular attention on image-based solutions for the production of animated work. It will allow you to advance your skills and techniques in matte painting, image-based modeling, terrain and environment modeling, particle systems for environments, and 3D object creation and shading, as you develop an area of specialisation through personal investigation and self-directed inquiry.

Prerequisites: KIB105 and KVB106  Credit points: 12  Contact hours: 6 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-1

KIB220 ANIMATION PRODUCTION
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Prerequisites: KIB105 and KVB106  Credit points: 12  Contact hours: 6 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-1

KIB221 ANIMATION: CG TOOLKIT
CG Toolkit offers an in-depth look at the tools of animated production from within a studio setting. Continuing from Animation Studio 1: Preproduction, this unit looks at the tools and the processes involved in creating high level successful 3D computer animations for game development, film or television production, web or emergent media.

Prerequisites: KIB105 or KIB804  Equivalents: KIB213  Credit points: 12  Contact hours: Up to 6 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-2

KIB221 ANIMATION: CG TOOLKIT
CG Toolkit offers an in-depth look at the tools of animated production from within a studio setting. Continuing from Animation Studio 1: Preproduction, this unit looks at the tools and the processes involved in creating high level successful 3D computer animations for game development, film or television production, web or emergent media.

Prerequisites: KIB105 or KIB804  Equivalents: KIB213  Credit points: 12  Contact hours: Up to 6 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-2
KIB225 CHARACTER DEVELOPMENT, CONCEPTUAL DESIGN AND ANIMATION LAYOUT
This unit emphasizes production in practice. By considering type and generic attributes within a technological context, you will be guided through the key concepts involved in the development of working drawings and final artworks.

Prerequisites: KIB111 or KIB203 or KIB107 or (KIB105 and KIB108 and KVB106)  
Equivalents: KIB106, KIB807  
Credit points: 12  
Contact hours: 3 per week  
Campus: Kelvin Grove  
Teaching period: 2011 SEM-2

KIB225 CHARACTER DEVELOPMENT, CONCEPTUAL DESIGN AND ANIMATION LAYOUT
This unit emphasizes production in practice. By considering type and generic attributes within a technological context, you will be guided through the key concepts involved in the development of working drawings and final artworks.

Prerequisites: KIB111 or KIB203 or KIB107 or (KIB105 and KIB108 and KVB106)  
Equivalents: KIB106, KIB807  
Credit points: 12  
Contact hours: 3 per week  
Campus: Kelvin Grove  
Teaching period: 2011 SEM-2

KIB230 INTERFACE AND INFORMATION DESIGN
With the advent of new technologies for communication, graphical user interfaces have become fundamental to the design of effective communication, and a key factor in the uptake, ease of use and experience of technology systems. This unit builds upon knowledge and skills acquired in units on visual communication and Web design to establish the knowledge and skills required to design and produce effective visual interfaces for technology applications such as Web, small screens in mobile media, and interactive displays. It will cover theories and principles of visual communication, information architecture and user experience design, which will be applied in the production of interfaces for interactive media and digital projects. The unit will be taught through a combination of lectures, tutorials and practical classes, in which skills and knowledge will be applied.

Prerequisites: KIB101 or KIB801  
Equivalents: KIB211  
Credit points: 12  
Contact hours: 3 per week  
Campus: Kelvin Grove  
Teaching period: 2010 SEM-1

KIB309 EMBODIED INTERACTIONS
Interaction with technology has advanced beyond the desktop paradigm of mouse and keyboard to embodied interfaces that incorporate video tracking, audio input, and gestural interaction techniques. Applications range from wearable technology to tangible media installations. This unit introduces an experimental field of interactive media design through the practical application of the processes and techniques of tangible media applications. Lectures, which provide the theoretical grounding of the study area, methodologies and examples of the application of tangible media are complemented by practical classes which extend the technical skills acquired in Programming for Designers and Artists and support the development of tangible media outcomes within design studios.

Prerequisites: KIB216 or KIB205 or INB385  
Equivalents: KIB311  
Credit points: 12  
Contact hours: 3 per week  
Campus: Kelvin Grove  
Teaching period: 2010 SEM-1

KIB309 EMBODIED INTERACTIONS
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Prerequisites: KIB216 or KIB205 or INB385  
Equivalents: KIB311  
Credit points: 12  
Contact hours: 3 per week  
Campus: Kelvin Grove  
Teaching period: 2011 SEM-1

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KIB314 TANGIBLE MEDIA
This unit extends the understandings of tangible media interfaces and applications gained in the embodied media unit. In this unit students will develop a tangible media project from concept through to design, production, evaluation, and exhibition. Theoretical understandings on tangible media object design, interaction and installation gained through lectures will be supplemented with production skills in workshops, and applied to the development of tangible media works in design studios. Finished works will be displayed in a final exhibition where members of the public will interact with them.

Prerequisites: KIB309  Equivalents: KIB311  Credit points: 12  Contact hours: 3 per week Campus: Kelvin Grove  Teaching period: 2010 SEM-2

KIB314 TANGIBLE MEDIA
This unit extends the understandings of tangible media interfaces and applications gained in the embodied media unit. In this unit students will develop a tangible media project from concept through to design, production, evaluation, and exhibition. Theoretical understandings on tangible media object design, interaction and installation gained through lectures will be supplemented with production skills in workshops, and applied to the development of tangible media works in design studios. Finished works will be displayed in a final exhibition where members of the public will interact with them.

Prerequisites: KIB309  Equivalents: KIB311  Credit points: 12  Contact hours: 3 per week Campus: Kelvin Grove  Teaching period: 2011 SEM-2

KIB316 VIRTUAL ENVIRONMENTS
The field of 3D virtual environments, simulation, and visualization are used to produce sophisticated approaches to interaction design, social networking and game-play. This unit is designed to cater for both creative and technical practitioners. Extending the knowledge and skills developed in 3D Computer Graphics and Real-time environments, this unit develops an advanced understanding of virtual environments and 3D spaces. You will apply and extend principals of real-time modeling, texture acquisition for real-time environments, and interaction design in the 3D context. Students enrolled in this unit will work in project teams to produce a significant 3D interactive environment within the context of a design studio.

Prerequisites: KIB325  Equivalents: KIB310, KIB821  Credit points: 12  Contact hours: 3 per week Campus: Kelvin Grove  Teaching period: 2011 SEM-2

KIB316 VIRTUAL ENVIRONMENTS
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Prerequisites: KIB325  Equivalents: KIB310, KIB821  Credit points: 12  Contact hours: 3 per week Campus: Kelvin Grove  Teaching period: 2011 SEM-2

KIB320 ADVANCED CONCEPTS IN COMPUTER ANIMATION 1
This unit allows you to consolidate your understanding of animation studio processes from previous units, and supports you to develop advanced skills and concepts in computer animation, character development, and cinematic narrative and storytelling. You will have the opportunity to pitch, critique and produce assets for an animated work for a show-reel and to engage in self-directed, independent study in a studio context. You will also develop skills in production management and direction for the production of a major work in Animation.

Prerequisites: KIB221 or KIB213  Equivalents: KIB312  Credit points: 12  Contact hours: 3 per week Campus: Kelvin Grove  Teaching period: 2010 SEM-1

KIB320 ADVANCED CONCEPTS IN COMPUTER ANIMATION 1
This unit allows you to consolidate your understanding of animation studio processes from previous units, and supports you to develop advanced skills and concepts in computer animation, character development, and cinematic narrative and storytelling. You will have the opportunity to pitch, critique and produce assets for an animated work for a show-reel and to engage in self-directed, independent study in a studio context. You will also develop skills in production management and direction for the production of a major work in Animation.

Prerequisites: KIB221 or KIB213  Equivalents: KIB312  Credit points: 12  Contact hours: 3 per week Campus: Kelvin Grove  Teaching period: 2011 SEM-1

KIB321 ADVANCED CONCEPTS IN COMPUTER ANIMATION 2
Animation Studio 4 consolidates the work completed in the previous animation studios. Concentrating on output, portfolio preparation, post production and transitioning between university and industry or into higher degrees, the
KIB321 ADVANCED CONCEPTS IN COMPUTER ANIMATION 2
Animation Studio 4 consolidates the work completed in the previous animation studios. Concentrating on output, portfolio preparation, post production and transitioning between university and industry or into higher degrees, the studio offers the opportunity to produce and direct a final portfolio piece or to begin academic research in the field of computer animation.

Prerequisites: KIB320  Equivalents: KIB313  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-2

KIB325 REAL-TIME 3D COMPUTER GRAPHICS
This unit provides the opportunity for extending the principles of 3D computer graphics into the emerging field of virtual environments that respond to interaction in real time. In this unit you will cover the principals of real-time modeling; texture acquisition for real-time environments and interaction design in the 3D context. This unit provides an opportunity where students studying 3D computer graphics can apply animation and interactive design principles to real-time spaces. These principles can be applied to the fields of game design and interactive 3D environments.

Prerequisites: KIB225  Equivalents: KIB310, KIB821  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-1

KIB325 REAL-TIME 3D COMPUTER GRAPHICS
This unit provides the opportunity for extending the principles of 3D computer graphics into the emerging field of virtual environments that respond to interaction in real time. In this unit you will cover the principals of real-time modeling; texture acquisition for real-time environments and interaction design in the 3D context. This unit provides an opportunity where students studying 3D computer graphics can apply animation and interactive design principles to real-time spaces. These principles can be applied to the fields of game design and interactive 3D environments.

Prerequisites: KIB225  Equivalents: KIB310, KIB821  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-1

KKB216 GRAPHICAL DEVELOPMENT ENVIRONMENTS FOR MEDIA INTERACTION
You will build interactive software systems for sampling, synthesising and manipulating media in real-time using graphical programming environments (also known as “patcher languages”). This will enable you to design and implement custom audio/video software for live performances and/or installations.

Prerequisites: KIB320  Equivalents: KIB313  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-2

KMB106 MUSIC AND SOUND FOR MULTIMEDIA
This unit deals with studio recording techniques, computer-assisted composition, the role of music in non-linear structures, the effect of sound in digital media productions, sound effects and Foley techniques, musical acoustics, and digital sound theory.

Assumed knowledge: Sound recording and operation of audio editing software is assumed knowledge.  Credit points: 12  Contact hours: 2.5 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-2

KMB107 SOUND, IMAGE, TEXT
This unit focuses on the rich and varied relationship between sound and image in a number of media and artforms, including film, music video, theatre, installation, mixed media performance and many more.

Equivalents: KMB638  Credit points: 12  Contact hours: 2.5 per week  Campus: Kelvin Grove and Caboolture  Teaching period: 2010 SEM-2

KMB107 SOUND, IMAGE, TEXT
This unit focuses on the rich and varied relationship between sound and image in a number of media and artforms, including film, music video, theatre, installation, mixed media performance and many more.

Equivalents: KMB638  Credit points: 12  Contact hours: 2.5 per week  Campus: Kelvin Grove and Caboolture  Teaching period: 2011 SEM-2

KMB119 MUSIC AND SOUND PRODUCTION 1
This unit introduces students to the fundamentals principles of music and sound production through a mix of theory and practice. Students gain an understanding of sound recording, sound production and live sound reinforcement and develop listening skills essential for music and sound production.

Equivalents: KMB108, KMB621  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-1

KMB119 MUSIC AND SOUND PRODUCTION 1
This unit introduces students to the fundamentals principles of music and sound production through a mix of theory and practice. Students gain an understanding of sound recording, sound production and live sound reinforcement and develop listening skills essential for music and sound production.

Equivalents: KMB108, KMB621  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-1
Teaching period: 2011 SEM-1

KMB129 MUSIC AND SOUND PRODUCTION 2
This unit builds on Music and Sound Production 1. It introduces students to sound synthesis and signal processing and extends the students understanding of the approaches and aesthetics underpinning creative music and sound production. Students will further develop practical skills in music and sound composition and deepen their knowledge of the hardware and software commonly used in creative production.
Equivalent: KMB105, KMB619  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-2

KMB129 MUSIC AND SOUND PRODUCTION 2
This unit builds on Music and Sound Production 1. It introduces students to sound synthesis and signal processing and extends the students understanding of the approaches and aesthetics underpinning creative music and sound production. Students will further develop practical skills in music and sound composition and deepen their knowledge of the hardware and software commonly used in creative production.
Equivalent: KMB105, KMB619  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-2

KMB252 MULTI-PLATFORM SOUND DESIGN
This unit builds on previous sound design knowledge and uses a range of tools to design and develop sound content for multi platform television, mobile phones, web, games, virtual worlds and social networks. Students gain an understanding of a variety of working methods and delivery formats and develop practical skills essential to successful collaboration and creation.
Prerequisites: KMB129  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-1

KVB105 DRAWING FOR DESIGN
This is a studio based unit that introduces you to media, processes, strategies and traditions of drawing and associated imagery for use in animated media. The development of critical/reflective frameworks of traditional and contemporary practice underpins studio development.
Equivalent: KVB755  Credit points: 12  Contact hours: 4 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-1

KVB105 DRAWING FOR DESIGN
This is a studio based unit that introduces you to media, processes, strategies and traditions of drawing and associated imagery for use in animated media. The development of critical/reflective frameworks of traditional and contemporary practice underpins studio development.
Equivalent: KVB755  Credit points: 12  Contact hours: 4 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-1

KVB106 DRAWING FOR ANIMATION
This unit develops individual knowledge, concepts and skills to enable you to articulate and present capabilities of motion through drawing for contemporary animation practices.
Equivalent: KVB756  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-2

KVB106 DRAWING FOR ANIMATION
This unit develops individual knowledge, concepts and skills to enable you to articulate and present capabilities of motion through drawing for contemporary animation practices.
Equivalent: KVB756  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2010 SEM-2

LWB136 CONTRACTS A
This unit includes the following: formation of contracts; equitable estoppel; privity of contract; formalities; express and implied terms; an examination of promises which are legally binding; how contractual promises may be characterised and the significance of that characterisation.
Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point and External  Teaching period: 2011 SEM-1 and 2011 SEM-2

LWB136 CONTRACTS A
This unit includes the following: formation of contracts; equitable estoppel; privity of contract; formalities; express and implied terms; an examination of promises which are legally binding; how contractual promises may be characterised and the significance of that characterisation.
Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point and External  Teaching period: 2010 SEM-1 and 2010 SEM-2

LWB137 CONTRACTS B
Legally binding promises pervade society, from uncomplicated bargains like riding on a bus to complex multi-million dollar transactions. The law of contract provides an understanding of promises which are legally binding, how contractual promises may be characterised and the significance of that characterisation, and how contractual promises may be discharged or invalidated. This is the second of two associated units which examine the law of contract, the focus of this unit being on the discharge of contracts, remedies for breach and the invalidation of contracts. The two units together provide the foundation for several units encountered later in the course.
Prerequisites: LWB136  Credit points: 12  Contact
hours: 3 hours per week    Campus: Gardens Point and External    Teaching period: 2011 SEM-1 and 2011 SEM-2

LWB137 CONTRACTS B
Legally binding promises pervade society, from uncomplicated bargains like riding on a bus to complex multi-million dollar transactions. The law of contract provides an understanding of promises which are legally binding, how contractual promises may be characterised and the significance of that characterisation, and how contractual promises may be discharged or invalidated. This is the second of two associated units which examine the law of contract, the focus of this unit being on the discharge of contracts, remedies for breach and the invalidation of contracts. The two units together provide the foundation for several units encountered later in the course.

Prerequisites: LWB136
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point and External
Teaching period: 2010 SEM-1 and 2010 SEM-2

LWB141 LEGAL INSTITUTIONS AND METHOD
This unit introduces students to the building blocks of law: fundamental principles; legal terminology; legal institutions; legal methodology; sources of the law; ways to interpret the law including an introduction to policy and international considerations. The material is presented as an integrated whole so that students obtain a broad perspective and an ability to ‘navigate the law’ without artificially dividing any particular aspect. The unit also emphasises the joint responsibility of the teacher and the student for learning and to foster the development of skills in communication, comprehension and analysis.

Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2008 SEM-1 and 2008 SEM-2
Incompatible with: LWB101, LWB135

LWB142 LAW, SOCIETY AND JUSTICE
This unit examines the basic tenets of our democratic liberal legal system, particularly the central concept, the rule of law. The unit begins with an historical development of rights and the rule of law. It looks at how law and values intertwine and how society at a particular time shapes notions of legal personality, the recognition of ‘family’ and human rights in law. It finally addresses the limitations of democratic liberalism and the rule of law by examining the reality of equality before the law in relation to such topics as gender and cultural neutrality, equal access to justice, and lawyers and the adversarial system.

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

LWB145 LEGAL FOUNDATIONS A
The unit aims to provide foundational knowledge about law and legal concepts, the Australian legal system and constitution, sources of law (including their purpose and use) and the ethical underpinnings of the law and legal profession. The unit also aims to introduce, within real world contexts, the essential legal skills of case analysis, problem solving, legal writing, legal reasoning, legal research and statutory interpretation to enable students to progress in their study of law.

Prerequisites: LWB237 or LWB244
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point and External
Teaching period: 2011 SEM-1 and 2011 SEM-2

LWB480 MEDIA LAW
This unit examines the regulation and non-regulation of freedom of speech exercised by the media. In this regard various limitations imposed by the common law, statute and self-regulation will be examined, such as defamation, restrictions on reporting courts and politics, contempt, privacy and confidentiality.

Prerequisites: LWB147 or LWB138
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point and External
Teaching period: 2010 SEM-2

LWB482 INTERNET LAW
This unit addresses the idea that it is vital for any participant in the digital age to gain a thorough knowledge of the structure, governance and regulation of the Internet, digital intellectual property, and risk management strategies for stakeholders.

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

LWB486 INTELLECTUAL PROPERTY LAW
There have been significant developments in the field of intellectual property law in recent years and the area is undoubtedly one perceived by the practising profession as growing in importance. This unit will provide a foundation to those areas of intellectual property law that legal practitioners may encounter in their everyday practice. In so doing, it will provide an examination of each of the intellectual property regimes. The course will also consider some of the broader more general policy matters as they relate to the field of intellectual property law.

Prerequisites: LWB237 or LWB244
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point and External
External  Teaching period: 2010 SEM-2

**MAB120 ALGEBRA AND CALCULUS**
This unit introduces and reviews the elementary concepts of function, calculus, matrices and vectors with special reference to applications in science, technology and business where appropriate. Topics covered include the algebra of complex numbers, elementary functions (polynomial, trigonometric, exponential and logarithmic) and their properties, differentiation and integration methods and principles, geometric and algebraic applications of vectors and the solution of linear systems using matrices.

**Antirequisites:** MAN120  
**Assumed knowledge:** Grade of at least Sound Achievement in Senior Mathematics B (or equivalent) or MAB105 is assumed knowledge

**Equivalents:** MAB100, MAB125, MAB180  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1, 2011 SEM-2 and 2011 SUM

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**MAB121 CALCULUS AND DIFFERENTIAL EQUATIONS**
Building upon the foundations established in MAB120 or Senior Maths C, this unit addresses the significant role of mathematical modelling using differential equations for the description and resolution of simple and complex problems relevant to real world situations. The formulation and solution of such problems is supported by appropriate advanced mathematical concepts used for function approximation, differentiation and integration. Undertaking this unit will allow you to develop your problem solving skills, especially in the context of advanced mathematical techniques applied to ordinary differential equations used to model real world problems. You will also gain a deeper understanding of the concepts of the derivative and the integral, and how these may be used in applied contexts.

**Antirequisites:** MAN121  
**Assumed knowledge:** Grade of at least Sound Achievement in Senior Mathematics C (or equivalent) or MAB120 or MAB100 or MAB125

**Equivalents:** MAB111, MAB126, MAB131, MAB182  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1, 2011 SEM-2 and 2011 SUM

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**MAB122 ALGEBRA AND ANALYTIC GEOMETRY**
Building upon the foundations established in MAB120 or Senior Maths C, this unit addresses the significant role of mathematical modelling using vectors, matrices and multivariable calculus for the description and resolution of simple and complex problems relevant to the real world. The formulation and solution of such problems is supported by appropriate advanced mathematical concepts used for function approximation, differentiation and integration. Undertaking this unit will allow you to develop your problem solving skills, especially in the context of advanced mathematical techniques applied to vectors, matrices and multivariable functions used to model real world problems.

**Assumed knowledge:** Grade of at least Sound Achievement in Senior Mathematics C (or equivalent) or MAB120 or MAB100 or MAB125  
**Equivalents:** MAB112, MAB127, MAB132

**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1, 2011 SEM-2 and 2011 SUM

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**MAB123 ALGEBRA AND ANALYTIC GEOMETRY**
This unit extends your knowledge in the areas of functions, calculus, matrices and vectors introduced in MAB120 by introducing functions of more than one variable, partial derivatives and multiple integrals, vector valued functions, and matrix methods for the solution of large systems of linear equations.
MAB281 MATHEMATICS FOR COMPUTER GRAPHICS
This unit introduces students to the mathematics involved in computer graphics, computer games and virtual reality. It is heavily reliant on analytic, Euclidean and projective geometries in 2D and 3D, elementary trigonometry, elementary linear algebra and elementary calculus. The unit will develop the mathematical concepts and where practicable show how these concepts are then applied in the field of computer graphics. Students must have completed four semesters of Senior Mathematics B with an exit level of Sound Achievement, or have passed MAB105 (or equivalent).
Assumed knowledge: Grade of at least Sound Achievement in Senior Mathematics B (or equivalent) or MAB105 is assumed knowledge. Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2010 SEM-2

MAB281 MATHEMATICS FOR COMPUTER GRAPHICS
Computer graphics is a rapidly growing field of the computer science industry. It has applications in computer games, virtual reality, CAD systems and geometric modelling. Fundamental to all of these applications is mathematics. Thus, to be a working professional in this area you will need a working knowledge of the basic mathematics and concepts that are central to this field. This unit is also ideal for non-specialists as it demonstrates some of the various fields of applications of mathematics in everyday life. The aim of this unit is to introduce you to the mathematics of computer graphics and relate this to the solutions of problems that arise in the many applications of computer graphics.
Assumed knowledge: Grade of at least Sound Achievement in Senior Mathematics B (or equivalent) or MAB105 is assumed knowledge. Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2011 SEM-2

MAB312 LINEAR ALGEBRA
This unit covers the following broad topics from linear algebra: matrix analysis; eigenvalues and eigenvectors; vector spaces; inner product spaces. Prerequisites: (MAB111 or MAB121) and (MAB112 or MAB122) Antirequisites: MAN312 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2010 SEM-1

MAB312 LINEAR ALGEBRA
This unit covers the following broad topics from linear algebra: matrix analysis; eigenvalues and eigenvectors; vector spaces; inner product spaces. Prerequisites: (MAB111 or MAB121) and (MAB112 or MAB122) Antirequisites: MAN312 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2011 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 Equivalents: MGX200 Credit points: 12 Contact hours: 3 Campus: Gardens Point Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

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 Equivalents: MGX200 Credit points: 12 Contact hours: 3 Campus: Gardens Point and Caboolture Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

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, MGX223 Credit points: 12 Contact hours: 3 per week Campus: Gardens Point and Caboolture Teaching period: 2010 SEM-1 and 2010 SEM-2
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 a 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:**  
MGB223, MGX223  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point and Caboolture  
**Teaching period:** 2011 SEM-1 and 2011 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, MGX324  
**Credit points:** 12  
**Contact hours:** 3  
**Campus:** Gardens Point and Caboolture  
**Teaching period:** 2011 SEM-1

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, MGX324  
**Credit points:** 12  
**Contact hours:** 3  
**Teaching period:** 2010 SEM-1

PCB593 DIGITAL IMAGE PROCESSING
This unit provides students with a basic understanding of the computer techniques used in image processing and reconstruction. Specific areas of study include the following: the structure of a digital image; image display techniques; grey scale palettes and look-up tables; Fourier transform theory; convolution theory; image processing hardware; image processing techniques, eg analysis, enhancement and restoration; spatial filtering; Fourier space filtering; methods of image reconstruction; 3D volume and surface rendering; applications of image processing in medicine, astronomy and remote sensing, etc.
**Prerequisites:** PCB375-2 or PCB496 or PQB250  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1

PCB593 DIGITAL IMAGE PROCESSING
This unit provides students with a basic understanding of the computer techniques used in image processing and reconstruction. Specific areas of study include the following: the structure of a digital image; image display techniques; grey scale palettes and look-up tables; Fourier transform theory; convolution theory; image processing hardware; image processing techniques, eg analysis, enhancement and restoration; spatial filtering; Fourier space filtering; methods of image reconstruction; 3D volume and surface rendering; applications of image processing in medicine, astronomy and remote sensing, etc.
**Prerequisites:** PCB375-2 or PCB496 or PQB250  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1

PQB250 MECHANICS AND ELECTROMAGNETISM
The experimental means by which we have arrived at our modern understanding of the universe is central to the scientific philosophy. Students of physics and physics related areas need to possess skills in quantitative handling, processing, communication and evaluation of data. Higher level studies in specialised areas of Physics require a familiarity with a range of fundamental topics in Physics and an ability to apply critical thinking and advanced mathematical techniques to the analysis and solution of Physical problems. This first-level unit lays the foundation for these higher level studies by introducing the fundamental topic areas of mechanics and electromagnetism.
**Assumed knowledge:** Senior Maths B is assumed knowledge.  
**Credit points:** 12  
**Contact hours:** 4.5 hours per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-2

PQB250 MECHANICS AND ELECTROMAGNETISM
The experimental means by which we have arrived at our modern understanding of the universe is central to the scientific philosophy. Students of physics and physics related areas need to possess skills in quantitative handling, processing, communication and evaluation of data. Higher level studies in specialised areas of Physics require a familiarity with a range of fundamental topics in Physics and an ability to apply critical thinking and advanced mathematical techniques to the analysis and solution of Physical problems. This first-level unit lays the foundation for these higher level studies by introducing the fundamental topic areas of mechanics and electromagnetism.
**Assumed knowledge:** Senior Maths B is assumed knowledge.  
**Credit points:** 12  
**Contact hours:** 4.5 hours per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-2
for these higher level studies by introducing the fundamental topic areas of mechanics and electromagnetism.

**Assumed knowledge:** Senior Maths B is assumed knowledge.  
**Credit points:** 12  
**Contact hours:** 4.5 hours per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

### PCB450 ENERGY, FIELDS AND RADIATION

The common theme of the topics covered in this unit is fields, the energy contained in these fields and the transfer of this energy. This theme is addressed in the specific topics of classical mechanics, electromagnetism and radiation physics. The classical mechanics and electromagnetism components build on material presented in introductory units and apply this to complex real world problems. The unit is designed to prepare students for more advanced studies in these areas but the unit will also provide a useful background for students undertaking a co-major in Physics or preparing for a career in secondary education.

**Prerequisites:** PQB250 or PCB250, and MAB311  
**Equivalents:** PCB362  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

### PCB251 WAVES AND OPTICS

Wave phenomena are used to describe and explain many of the physical processes in the universe. Sound and light are the most commonly experienced of these and have far-reaching human applications, including their use as experimental tools for science. The study of wave phenomena has led to the development of quantum mechanics, a cornerstone of modern scientific thought. This first-level unit lays the foundation for discussion of wave phenomena in higher level studies, but will also be relevant to those not considering progressing to a Physics major but wishing to understand more of the Physical world in which we live.

**Assumed knowledge:** Senior Maths B is assumed knowledge.  
**Credit points:** 12  
**Contact hours:** 4.5 hours per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-2

### PCB460 ASTROPHYSICS 1

This second level unit is one of the key units in the astrophysics co-major and introduces students to most of the main aspects of astrophysics. This unit is essential as it defines the connections between the supporting units of the co-major. Students are required to use the knowledge and skills developed in first level physics, maths and natural resource units.

**Prerequisites:** PQB250 or PCB250 or PCB150  
**Equivalents:** PCB469  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-2

### PCB460 ASTROPHYSICS 1

This second level unit is one of the key units in the astrophysics co-major and introduces students to most of the main aspects of astrophysics. This unit is essential as it defines the connections between the supporting units of the co-major. Students are required to use the knowledge and skills developed in first level physics, maths and natural resource units.

**Prerequisites:** PQB250 or PCB250 or PCB150  
**Equivalents:** PCB469  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2