Bachelor of Games and Interactive Entertainment (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
International Entry: February
QTAC code: 418102
Past rank cut-off: 74
Past OP cut-off: 13
OP Guarantee: Yes
Assumed knowledge: English (4, SA) and Maths A, B or C (4, SA)
Preparatory studies: For information on acquiring assumed knowledge visit http://www.qut.edu.au/assumed-knowledge
Total credit points: 288
Course coordinator: Michael Docherty
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

Only available to those undertaking the animation major.

Only available to those undertaking the software technologies major.

Professional Recognition
The Software Technologies major within this course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

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.

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.

Credit for Previous Study
Domestic and international applicants may claim credit for part of the degree, on the basis of completed or partially completed studies, related to the Bachelor of IT.

International students can access advanced standing arrangements on QUT's international site.

Domestic applicants should view the credit information on the Student Services site.

Deferment
Domestic students can defer their offer in this course for one year. In exceptional circumstances up to 12 months of additional deferment may be granted.

Find out more on deferment.

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.
Bachelor of Games & Interactive Entertainment Course Structure 2011

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; Sotware Technologies |
| Block C: Minor (4 units) |
| Block D: Electives (4 units) |

The Cooperative Education Programs are replacements for general IT electives

Year 1, Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INB180</td>
<td>Computer Games Studies</td>
</tr>
<tr>
<td>INB104</td>
<td>Building IT Systems</td>
</tr>
<tr>
<td>INB103</td>
<td>Industry Insights</td>
</tr>
<tr>
<td>INB182</td>
<td>Introducing Design</td>
</tr>
</tbody>
</table>

Year 1, Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>INB181</td>
<td>Introduction to Games Production</td>
</tr>
<tr>
<td>Block B or Block C or Block D Unit</td>
<td></td>
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</tbody>
</table>

Year 2, Semester 1

<table>
<thead>
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<th>Course Code</th>
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<td>Block B or Block C or Block D Unit</td>
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Year 2, Semester 2

<table>
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<td>Block B or Block C or Block D Unit</td>
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Year 3, Semester 1

<table>
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<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>INB379</td>
<td>Game Project Design</td>
</tr>
</tbody>
</table>

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
## Bachelor of Games & Interactive Entertainment Minors

### Course structure (Block C) 2011

**Software Technologies**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INB281</td>
<td>Advanced Game Design</td>
</tr>
<tr>
<td>DEB103</td>
<td>Visualisation 1</td>
</tr>
<tr>
<td>KIB214</td>
<td>Design for Interactive Media</td>
</tr>
</tbody>
</table>

**OR**

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>INB383</td>
<td>AI for Games</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INB270</td>
<td>Programming</td>
</tr>
<tr>
<td>MAB281</td>
<td>Mathematics for Computer Graphics</td>
</tr>
<tr>
<td>INB210</td>
<td>Databases</td>
</tr>
<tr>
<td>INB250</td>
<td>Computer Architectures and Systems</td>
</tr>
<tr>
<td>INB370</td>
<td>Software Development</td>
</tr>
<tr>
<td>INB371</td>
<td>Data Structures and Algorithms</td>
</tr>
<tr>
<td>INB381</td>
<td>Modelling and Animation Techniques</td>
</tr>
<tr>
<td>INB382</td>
<td>Real Time Rendering Techniques</td>
</tr>
</tbody>
</table>

**Digital Media**

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<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>KIB101</td>
<td>Visual Communication</td>
</tr>
<tr>
<td>KIB103</td>
<td>Introduction to Web Design and Development</td>
</tr>
</tbody>
</table>

**Entrepreneurship**

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<td>BSB115</td>
<td>Management</td>
</tr>
<tr>
<td>MGB223</td>
<td>Entrepreneurship and Innovation</td>
</tr>
<tr>
<td>MGB324</td>
<td>Managing Business Growth</td>
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**Game Design**

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<td>KIB201</td>
<td>Concept Development for Game Design and Interactive Media</td>
</tr>
<tr>
<td>KIB202</td>
<td>Enabling Immersion</td>
</tr>
<tr>
<td>INB280</td>
<td>Fundamentals of Game Design</td>
</tr>
<tr>
<td>INB281</td>
<td>Advanced Game Design</td>
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</tbody>
</table>

**Legal Issues**

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<tbody>
<tr>
<td>LWB136</td>
<td>Contracts A</td>
</tr>
<tr>
<td>LWB145</td>
<td>Legal Foundations A</td>
</tr>
<tr>
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<td>Contracts B</td>
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**Marketing**

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<tr>
<td>BSB126</td>
<td>Marketing</td>
</tr>
<tr>
<td>AMB200</td>
<td>Consumer Behaviour</td>
</tr>
<tr>
<td>AMB201</td>
<td>Marketing and Audience Research</td>
</tr>
</tbody>
</table>

Students select a Minor from the following:

### Animation

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<tr>
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<tbody>
<tr>
<td>KIB105</td>
<td>Animation and Motion Graphics</td>
</tr>
<tr>
<td>KVB105</td>
<td>Drawing for Design</td>
</tr>
<tr>
<td>KVB106</td>
<td>Drawing for Animation</td>
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<tr>
<td>KIB203</td>
<td>Introduction to 3D Computer Graphics</td>
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<td>KIB225</td>
<td>Character Development, Conceptual Design and Animation Layout</td>
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<tr>
<td>KIB108</td>
<td>Animation History and Practices</td>
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### Advanced Animation#

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<tr>
<td>KIB325</td>
<td>Real-Time 3D Computer Graphics</td>
</tr>
<tr>
<td>KIB320</td>
<td>Advanced Concepts in Computer Animation 1</td>
</tr>
<tr>
<td>KIB321</td>
<td>Advanced Concepts in Computer Animation 2</td>
</tr>
<tr>
<td>KIB316</td>
<td>Virtual Environments</td>
</tr>
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*Entry into this minor is limited to students enrolled in the Animation Major

### Advanced Software Technologies #

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<tr>
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<tbody>
<tr>
<td>INB365</td>
<td>Systems Programming</td>
</tr>
<tr>
<td>INB372</td>
<td>Agile Software Development</td>
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<td>INB374</td>
<td>Enterprise Software Architecture</td>
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OR

## Bachelor of Games & Interactive Entertainment Minors

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* Only available to students doing the Software Technologies major

### Digital Media

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<td>KIB101</td>
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### 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
- **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

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The course consists of four blocks of studies

<table>
<thead>
<tr>
<th>Year, Semester</th>
<th>Unit/Subject</th>
</tr>
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<tbody>
<tr>
<td><strong>Year 1, Semester 1</strong></td>
<td>INB180 Computer Games Studies</td>
</tr>
<tr>
<td></td>
<td>INB182 Introducing Design</td>
</tr>
<tr>
<td><strong>Year 1, Semester 2</strong></td>
<td>INB181 Introduction to Games Production</td>
</tr>
<tr>
<td></td>
<td>INB104 Building IT Systems</td>
</tr>
<tr>
<td><strong>Year 2, Semester 1</strong></td>
<td>INB103 Industry Insights</td>
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<td></td>
<td>Block B or Block C or Block D Unit</td>
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<tr>
<td><strong>Year 2, Semester 2</strong></td>
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<tr>
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<td>Block B or Block C or Block D Unit</td>
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</tr>
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<td>Block B or Block C or Block D Unit</td>
</tr>
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<td>Block B or Block C or Block D Unit</td>
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<td><strong>Year 4, Semester 1</strong></td>
<td>Block B or Block C or Block D Unit</td>
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<td><strong>Year 4, Semester 2</strong></td>
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<td>Block B or Block C or Block D Unit</td>
</tr>
<tr>
<td><strong>Year 5, Semester 1</strong></td>
<td>Block B or Block C or Block D Unit</td>
</tr>
<tr>
<td></td>
<td>Block B or Block C or Block D Unit</td>
</tr>
<tr>
<td><strong>Year 5, Semester 2</strong></td>
<td>Block B or Block C or Block D Unit</td>
</tr>
</tbody>
</table>

Bachelor of Games & Interactive Entertainment Part time structure

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Published on: 13 June 2012

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

Year 6, Semester 1
INB379  Game Project Design
Block B or Block C or Block D Unit

Year 6, Semester 2
INB380  Games Project
Note: Coop Ed students replace INB380 with INS011 and INS012

Bachelor of Games & Interactive Entertainment Course Structure 2010

The course consists of four blocks of studies

Block A: Core Studies (8 units including a 36 credit point Project completed over Semesters 5 & 6)
Block B: Major (8 units) selected from Animation; Digital Media; Games Design; Software Technologies
Block C: Minor (4 units)
Block D: Electives (4 units)
The Cooperative Education Programs are replacements for general IT electives

Year 1, Semester 1
INB180  Computer Games Studies
INB104  Building IT Systems
INB103  Industry Insights
INB182  Introducing Design

Year 1, Semester 2
INB181  Introduction to Games Production
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 2, Semester 1
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 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

Year 3, Semester 1
INB379  Game Project Design
Block B or Block C or Block D Unit

Year 3, Semester 2
INB380  Games Project
Block B or Block C or Block D Unit
Note: Coop Ed students replace INB380 with INS011 and INS012

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
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
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*
* Requirements for this Major is a SA or better in Queensland Maths B (or equivalent)
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
OR
INB383 AI for Games

Bachelor of Games & Interactive Entertainment Minors
Course structure (Block C) 2010

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

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
OR
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
OR
INB272 Interaction Design

Legal Issues
LWB141 Legal Institutions and Method
LWB136 Contracts 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
Bachelor of Games & Interactive Entertainment Course structure 2009

The course consists of four blocks of studies

Block A: Core Studies (6 units plus a 24 credit point Project completed in Semester 6)

Block B: Major (8 units) selected from Animation; Digital Media; Games Design; Software Technologies

Block C: Minor (4 units)

Block D: Electives (4 units)

The Cooperative Education Programs are replacements for general IT electives

Year 1, Semester 1

INB180 Computer Games Studies
INB104 Building IT Systems
INB103 Industry Insights
INB204 Special Topic 1

Year 1, Semester 2

INB181 Introduction to Games Production
Block B or Block C Unit
Block B or Block C Unit

Year 2, Semester 1

Block B or Block C Unit
Block B or Block C Unit
Block B or Block C 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

Year 3, Semester 1

INB379 Game Project Design
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 2

INB380 Games Project
Bachelor of Games & Interactive Entertainment Majors
Course structure 2009

<table>
<thead>
<tr>
<th>Animation</th>
<th>KIB105</th>
<th>Animation and Motion Graphics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>KIB108</td>
<td>Animation History and Practices</td>
</tr>
<tr>
<td></td>
<td>KIB225</td>
<td>Character Development, Conceptual Design and Animation Layout</td>
</tr>
<tr>
<td></td>
<td>KIB203</td>
<td>Introduction to 3D Computer Graphics</td>
</tr>
<tr>
<td></td>
<td>KIB325</td>
<td>Real-Time 3D Computer Graphics</td>
</tr>
<tr>
<td></td>
<td>KIB316</td>
<td>Virtual Environments</td>
</tr>
<tr>
<td></td>
<td>KVB105</td>
<td>Drawing for Design</td>
</tr>
<tr>
<td></td>
<td>KVB106</td>
<td>Drawing for Animation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digital Media</th>
<th>KIB101</th>
<th>Visual Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>KIB102</td>
<td>Visual Interactions</td>
</tr>
<tr>
<td></td>
<td>INB385</td>
<td>Multimedia Systems</td>
</tr>
<tr>
<td></td>
<td>INB386</td>
<td>Advanced Multimedia Systems</td>
</tr>
<tr>
<td></td>
<td>INB345</td>
<td>Mobile Devices</td>
</tr>
<tr>
<td></td>
<td>KIB230</td>
<td>Interface and Information Design</td>
</tr>
<tr>
<td></td>
<td>KIB309</td>
<td>Embodied Interactions</td>
</tr>
<tr>
<td></td>
<td>KIB314</td>
<td>Tangible Media</td>
</tr>
</tbody>
</table>

| Game Design | INB281 | Advanced Game Design |
|            | INB280 | Fundamentals of Game Design |
|            | INB272 | Interaction Design |
|            | KIB201 | Concept Development for Game Design and Interactive Media |
|            | KIB202 | Enabling Immersion |
|            | KIB214 | Design for Interactive Media |
| AND        | DEB201 | Digital Communication |
|            | DAB110 | Architectural Design 1 |
|            | DTB101 | Interior Design 1 |
|            | DNB101 | Industrial Design 1 |

| Software Technologies* | INB270 | Programming |
|                       | INB210 | Databases |
|                       | INB250 | Systems Architecture |
|                       | INB371 | Data Structures and Algorithms |
|                       | INB381 | Modelling and Animation Techniques |
|                       | INB382 | Real Time Rendering Techniques |
|                       | INB370 | Software Development |
|                       | MAB281 | Mathematics for Computer Graphics |
| OR                    | INB304 | Special Topic 3 |

Note: Coop Ed students replace INB380 with INS011 and INS012

Bachelor of Games & Interactive Entertainment Minors
Course structure 2009

Students select a Minor from the following

<table>
<thead>
<tr>
<th>Animation</th>
<th>KIB105</th>
<th>Animation and Motion Graphics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>KVB105</td>
<td>Drawing for Design</td>
</tr>
<tr>
<td></td>
<td>KVB106</td>
<td>Drawing for Animation</td>
</tr>
<tr>
<td></td>
<td>KIB108</td>
<td>Animation History and Practices</td>
</tr>
</tbody>
</table>

| Advanced Animation# | KIB212 | Animation Studio 1: Preproduction |
|                     | KIB213 | Animation Studio 2: CG Toolkit |

#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, KIB201, KVB105, KVB106.

<table>
<thead>
<tr>
<th>Advanced Software Technologies #</th>
<th>INB365</th>
<th>Systems Programming</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>INB372</td>
<td>Agile Software Development</td>
</tr>
<tr>
<td></td>
<td>INB374</td>
<td>Enterprise Software Development</td>
</tr>
<tr>
<td></td>
<td>INB382</td>
<td>Real Time Rendering Techniques</td>
</tr>
<tr>
<td>OR</td>
<td>INB304</td>
<td>Special Topic 3</td>
</tr>
</tbody>
</table>

# Only available to students doing the Software Technologies major

<table>
<thead>
<tr>
<th>Digital Media</th>
<th>KIB101</th>
<th>Visual Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>KIB102</td>
<td>Visual Interactions</td>
</tr>
</tbody>
</table>
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
LWB141  Legal Institutions and Method
LWB136  Contracts 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
Three units selected from the following
AMB251  Innovation and Brand Management
AMB240  Marketing Planning and Management
AMB201  Marketing and Audience Research
AMB359  Strategic Marketing

Mathematics for Games#
MAB100  Mathematical Sciences 1A
MAB111  Mathematical Sciences 1B
MAB112  Mathematical Sciences 1C
MAB312  Linear Algebra

# Students who have completed Maths C can substitute MAB100 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
KMB105  Music and Sound Technology
KMB106  Music and Sound for Multimedia
KMB107  Sound, Image, Text
KMB108  Sound Recording and Acoustics

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

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

Physics for Games
MAB111  Mathematical Sciences 1B
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

Bachelor of Games & Interactive Entertainment Course structure 2008

The course consists of four blocks of studies
Block A: Core Studies (6 units plus a 24 credit point Project completed in Semester 6)
Block B: Major (8 units) selected from Animation and Computational Art; Digital Media; Games Design; Software Technologies
Block C: Minor (4 units)
Block D: Electives (4 units)
Students who choose to complete the Cooperative Education Program replace an IT general elective with ITS010

Year 1, Semester 1
**Bachelor of Games & Interactive Entertainment Majors**

**Course structure**

<table>
<thead>
<tr>
<th>Year 1, Semester 2</th>
<th>ITB750</th>
<th>Computer Game Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ITB001</td>
<td>Problem Solving and Programming</td>
</tr>
<tr>
<td></td>
<td>ITB002</td>
<td>IT Professional Studies</td>
</tr>
<tr>
<td></td>
<td>DEB101</td>
<td>Introducing Design</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 2, Semester 1</th>
<th>ITB751</th>
<th>Games Production</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Block B or Block C Unit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Block B or Block C Unit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Block B or Block C Unit</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 2, Semester 2</th>
<th>KVB106</th>
<th>Foundations of Drawing for Animation 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>KKB210</td>
<td>Computational Arts 1</td>
</tr>
<tr>
<td></td>
<td>KKB211</td>
<td>Computational Arts 2</td>
</tr>
</tbody>
</table>

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

**Digital Media**

<table>
<thead>
<tr>
<th>KIB101</th>
<th>Foundations of Communication Design 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIB102</td>
<td>Foundations of Communication Design 2</td>
</tr>
<tr>
<td>KIB103</td>
<td>Media Technology 1</td>
</tr>
<tr>
<td>ITB254</td>
<td>Interaction Design</td>
</tr>
<tr>
<td>ITB257</td>
<td>Multimedia Systems</td>
</tr>
<tr>
<td>ITB259</td>
<td>Advanced Multimedia Systems</td>
</tr>
</tbody>
</table>

2 more units as per discussion with course coordinator

**Game Design**

<table>
<thead>
<tr>
<th>ITB016</th>
<th>Fundamentals of Games Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITB017</td>
<td>Advanced Games Design</td>
</tr>
<tr>
<td>KIB201</td>
<td>Interactive Writing</td>
</tr>
<tr>
<td>KIB202</td>
<td>Enabling Immersion</td>
</tr>
<tr>
<td>KIB310</td>
<td>Design Studio 3: Virtual Environments</td>
</tr>
</tbody>
</table>

Two units selected from the following

<table>
<thead>
<tr>
<th>DEB201</th>
<th>Digital Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEB102</td>
<td>Introducing Design History</td>
</tr>
<tr>
<td>DAB110</td>
<td>Introductory Architectural Design 1</td>
</tr>
<tr>
<td>DTB101</td>
<td>Interior Design 1</td>
</tr>
<tr>
<td>DNB101</td>
<td>Industrial Design 1</td>
</tr>
</tbody>
</table>

**Software Technologies**

* This Major assumes students have obtained a SA or better in Queensland Maths B (or equivalent)

<table>
<thead>
<tr>
<th>ITB003</th>
<th>Object Oriented Programming</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITB004</td>
<td>Database Systems</td>
</tr>
<tr>
<td>ITB005</td>
<td>Systems Architecture</td>
</tr>
<tr>
<td>ITB072</td>
<td>Algorithms and Data Structures</td>
</tr>
<tr>
<td>ITB746</td>
<td>Modelling and Animation Techniques</td>
</tr>
<tr>
<td>ITB747</td>
<td>Real Time Rendering Techniques</td>
</tr>
<tr>
<td>ITB749</td>
<td>Scientific Programming</td>
</tr>
<tr>
<td>MAB281</td>
<td>Mathematics for Computer Graphics</td>
</tr>
</tbody>
</table>

**Bachelor of Games & Interactive Entertainment Minors**

**Course structure**

Students select a Minor from the following
### Animation

This minor is not available to students who are undertaking the Animation and Computational Arts Major.

- KIB105 Animation and Motion Graphics
- KIB107 Introduction to Programming for 3D
- KVB105 Foundations of Drawing for Animation 1
- KVB106 Foundations of Drawing for Animation 2

**OR**

- KIB108 Animation Practices

### Advanced Animation#

- KIB212 Animation Studio 1: Preproduction
- KIB213 Animation Studio 2: CG Toolkit

# This Minor is only available to students who are undertaking the Animation and Computational Arts Major. As resources are limited, entry will be determined on the basis of a student’s academic performance in the units KIB105, KIB107, KIB108 and KVB105.

### Computational Arts

- ITB003 Object Oriented Programming
- KKB210 Computational Arts 1
- KKB211 Computational Arts 2
- KIB106 Character Development, Conceptual Design and Animation Layout

### Digital Media

- ITB254 Interaction Design
- ITB257 Multimedia Systems
- ITB259 Advanced Multimedia Systems
- KIB101 Foundations of Communication Design 1
  
  **OR**
  
  - KIB103 Media Technology 1

### Entrepreneurship

- BSB115 Management, People and Organisations
- MGB223 Entrepreneurship and Innovation

**OR**

- MGB218 Managing Business Growth
- AMB240 Marketing Planning and Management
- AMB251 Innovation and Market Development

### Game Design

- KIB201 Interactive Writing
- KIB202 Enabling Immersion

### Legal Issues

- LWB141 Legal Institutions and Method
- LWB136 Contracts A
  
  Two units selected from the following

- LWB137 Contracts B
- LWB142 Law, Society and Justice
- LWB480 Media Law
- LWB486 Intellectual Property Law

### Marketing

- BSB126 Marketing
  
  Three units selected from the following

- AMB251 Innovation and Market Development
- AMB240 Marketing Planning and Management
- AMB201 Marketing and Audience Research
- AMB341 Strategic Marketing

### Mathematics for Games#

- MAB100 Mathematical Sciences 1A
- MAB111 Mathematical Sciences 1B
- MAB112 Mathematical Sciences 1C
- MAB312 Linear Algebra

# Students who have completed Maths C can substitute MAB100 with one of the following units: MAB311, MAB481 or MAB422

### Mobile and Network Technologies*

- ITB006 Networks
- ITB720 Internet Protocols and Services
- ITB730 Information Security Fundamentals
- ITB723 Wireless and Mobile Networks

*This Minor is only available to students who are undertaking the Software Technologies Major

### Sound Design

- KMB105 Music and Sound Technology
- KMB106 Music and Sound for Multimedia
- KMB107 Sound, Image, Text
- KMB108 Sound Recording and Acoustics

### Physics for Games

- PCB107 Physics and Quantitative Techniques
PCB460 Instrumentation and Computational Methods
PCB593 Digital Image Processing
PQB251 Waves and Optics

Software Technologies
ITB003 Object Oriented Programming
ITB004 Database Systems
ITB005 Systems Architecture
ITB749 Scientific Programming

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

IT Elective List

IT Elective Units
INB123 Project Management Practice
INB221 Technology Management
INB311 Enterprise Systems
INB313 Electronic Commerce Site Development
INB374 Enterprise Software Architecture
INB386 Advanced Multimedia Systems
INB320 Business Process Modelling
INB321 Business Process Management
INB322 Information Systems Consulting
INB323 Smart Services
INB330 Information Management
INB331 Management Issues for Information Professionals
INB334 Information Issues and Values
INB335 Information Resources
INB340 Database Design
INB341 Software Development With Oracle
INB342 Enterprise Data Mining and Data Analysis
INB350 Internet Protocols and Services
INB351 Unix Network Administration
INB352 Network Planning
INB353 Wireless and Mobile Networks
INB370 Software Development
INB371 Data Structures and Algorithms
INB372 Agile Software Development
INB374 Enterprise Software Architecture
INB204 Special Topic 1
INB205 Special Topic 2
INB300 Professional Practice in IT
INB305 Special Topic 4
INB304 Special Topic 3
INS350 CCNA 1&2 Network Fundamentals and Routing
INS352 CCNP1: Building Scalable Internetworks
INS351 CCNA 3&4 Lan Switching
INS353 CCNP 2: Building Multi Layered Switched Networks
INS354 CCNP3: Building Multi Layered Switched Networks
INS355 CCNP 4: Optimising Converged Networks
INB306 Project 1
INB307 Project 2
INB308 Project 3
INB365 Systems Programming
INB355 Cryptology and Protocols
INB860 Computational Intelligence for Control and Embedded Systems
INB346 Enterprise 2.0
INB345 Mobile Devices
INB347 Web 2.0 Applications
INB334 Information Issues and Values
INB300 Professional Practice in IT
INB305 Special Topic 4
INB304 Special Topic 3
INS350 CCNA 1&2 Network Fundamentals and Routing
INS352 CCNP1: Building Scalable Internetworks
INS351 CCNA 3&4 Lan Switching
INS353 CCNP 2: Building Multi Layered Switched Networks
INS354 CCNP3: Building Multi Layered Switched Networks
INS355 CCNP 4: Optimising Converged Networks
INB306 Project 1
INB307 Project 2
INB308 Project 3
INB365 Systems Programming
INB355 Cryptology and Protocols
INB860 Computational Intelligence for Control and Embedded Systems
INB346 Enterprise 2.0
INB345 Mobile Devices
INB347 Web 2.0 Applications
INB334 Information Issues and Values

Potential Careers:

UNIT SYNOPSES

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: MIIB204

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 per week
Campus: Gardens Point and Caboolture
Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

AMB201 MARKETING AND AUDIENCE RESEARCH
This unit provides an introduction to the conduct and evaluation of marketing and audience research across the disciplines of advertising, marketing and public relations. Class members explore how field studies, survey and experimental research are employed to support advertising, marketing and public relations information needs. The unit provides an overview of research process, research design, methods of data collection and analysis, and the development of research proposals to support decision-making. Class members also explore issues related to research on media audiences, research ethics, and the management of client briefings.
Prerequisites: BSB126 or CTB126 or BSB116 or BSB117
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2009 SEM-1 and 2009 SEM-2
Incompatible with: MIB217 or CTB240

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 or CTB126 or BSB116 or BSB117
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2008 SEM-1, 2008 SEM-2 and 2008 SUMMER
Incompatible with: MIB305, MGB220 or COB334 or CTB201

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: 2011 SEM-1, 2011 SEM-2 and 2011 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, CTB126, BSB116, or BSB117
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point and Caboolture
Teaching period: 2009 SEM-1 and 2009 SEM-2
Incompatible with: MIB305, MGB220 or COB334 or CTB201

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 or BSB116 or BSB117
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2009 SEM-1 and 2009 SEM-2
Incompatible with: MIB217 or CTB240
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.

**Prerequisite(s):** BSB126 or CTB126  
**Equivalents:** AMX240, CTB240  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1 and 2010 SEM-2

AMB240 MARKETING PLANNING AND MANAGEMENT
This unit extends the student’s knowledge of the fundamental marketing concepts and theories introduced in the Faculty Core unit in Marketing, by adding further breadth and depth of knowledge of marketing and developing skills in the application of this knowledge to marketing planning and management within the business environment. Emphasis is on the role of the marketing manager at the product management level in undertaking analysis, planning, implementation and control of marketing activities.

**Prerequisite(s):** BSB126 or CTB126  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2008 SEM-1 and 2008 SEM-2  
**Incompatible with:** MIB217 or CTB240

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.

**Prerequisite(s):** BSB126 or BSB116 or CTB126  
**Credit points:** 12  
**Contact hours:** 3  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-2  
**Incompatible with:** MIB227

AMB341 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.

**Prerequisite(s):** AMB240 or CTB240 or MIB217  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2008 SEM-1 and 2008 SEM-2  
**Incompatible with:** MIB315, CTB341

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 AMB355 or AMB241
Equivalent(s): AMB341, AMX359
Credit points: 12
Campus: Gardens Point and Caboolture
Teaching period: 2010 SEM-1 and 2010 SEM-2

AMB359 STRATEGIC MARKETING
Emphasis of the capstone Marketing unit is on the role of marketing manager at the corporate and strategic business unit/division levels. Students are exposed to a variety of strategic marketing techniques and issues, and learn how to apply these in corporate planning and management. Topics include: developing and critiquing strategic marketing planning models; recognising the importance of market focus; determining what marketing strategy can realistically be accomplished for a business; identifying underlying factors that must be considered in developing marketing strategy for a market-oriented organisation; discussing problems in successful implementation of marketing strategy; and organising for successful strategy implementation.
Prerequisite(s): AMB340; and AMB355 or AMB241
Credit points: 12
Teaching period: 2009 SEM-1 and 2009 SEM-2
Incompatible with: AMB341

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.
Credit points: 12
Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM
Compatibility with: AMB341, CTB115

BSB115 MANAGEMENT, PEOPLE AND ORGANISATIONS
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.
Contact hours: 3 per week
Campus: Gardens Point and Carseldine
Teaching period: 2008 SEM-1, 2008 SEM-2 and 2008 SUMMER
Incompatible with: BSD115, CTB115

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.
Credit points: 12
Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM
Compatibility with: AMB341, CTB115

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.

**Contact hours:** 4 per week  
**Campus:** Gardens Point and Carseldine  
**Teaching period:** 2008 SEM-1, 2008 SEM-2 and 2008 SUMMER  
**Incompatible with:** BSB116, CTB126

**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.

**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point and Caboolture  
**Teaching period:** 2009 SEM-1, 2009 SEM-2 and 2009 SUM  
**Incompatible with:** BSB116, CTB126

**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:** BSX126, 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

**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.

**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-1

**DAB110 INTRODUCTORY 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.

**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2008 SEM-1

**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 DLB130 or DNB101 or DTB101. DEB103 can be studied in the same teaching period as DAB110  
**Equivalents:** ADB001  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-1

**DEB101 INTRODUCING DESIGN**

Please note: this unit is only available to First Year DE40 and IT04 students.

This unit offers a uniquely broad introduction to the field of design as applied across the design disciplines. It uses exercises to enhance student perceptions of the natural and human made environments in a problem based learning context. The unit is block taught over several weeks during the semester and will include students from a range of design disciplines participating in a four day field trip (students unable to attend participate in an alternative program). Students work individually and in cross-disciplinary teams in a stimulating and immersive environment. This unit covers content of problem solving, team work, visualisation and communication, and environmental awareness.

**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:**
DEB102 INTRODUCING DESIGN HISTORY
Designers within any discipline should possess the ability to appreciate the history of design. This involves appreciation of developments in design history and theory from multiple perspectives. This unit encompasses a broad survey of the history of design from the civilizations of antiquity to the opening of the 20th century. It is a first year foundation unit and serves as preparation for more detailed and specialized studies in history and theory in subsequent years. Key designs, ideas and artefacts and the aesthetic, environmental, technological, socio-cultural and political factors that related to their production will be analysed. Teaching and learning takes place through three forms of structured activity: lectures, tutorials, and online.
Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2008 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: 2008 SEM-2

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: 2009 SEM-2

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

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.
Prerequisitess: DEB103 or DAB110 or DLB130 or DTB101. DEB103 can be studied in the same teaching period as DNB101 
Equivalents: ADB201 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2010 SEM-1

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Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2009 SEM-1

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Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2008 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 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.

Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2008 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.

Prerequisite(s): Nil  Corequisite(s): Nil  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2009 SEM-1 and 2009 SEM-2  Incompatible with: ITB005

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

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

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
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INB104 BUILDING IT SYSTEMS
This team-based 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.

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.

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Prerequisite(s): Nil Corequisite(s): Nil Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2009 SEM-1 and 2009 SEM-2 Incompatible with: ITB002

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.

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INB123 PROJECT MANAGEMENT PRACTICE
In your information technology career it is very likely that you will work on and lead project teams to achieve business outcomes. You will achieve more effective outcomes by
employing a project management method. The aim of this course is to familiarise you with the PRINCE2® method so that you could successfully work within and lead project teams. At the conclusion of this unit you will may be eligible to sit the externally provided PRINCE2® Foundation and Practitioner accreditation examinations.

**Antirequisites**: INN500  
**Assumed knowledge**: Completion of 48 credit points of an Undergraduate study is assumed knowledge.  
**Credit points**: 12  
**Contact hours**: 3 per week  
**Campus**: Gardens Point  
**Teaching period**: 2011 SEM-1 and 2011 SEM-2

**INB180 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**: 2010 SEM-1

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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.

**Prerequisite(s)**: Nil  
**Corequisite(s)**: Nil  
**Credit points**: 12  
**Contact hours**: 3 per week  
**Campus**: Gardens Point  
**Teaching period**: 2009 SEM-1  
**Incompatible with**: ITB750

**INB180 COMPUTER GAMES STUDIES**  
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**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**: 2010 SEM-2

**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.

**Prerequisite(s)**: Nil  
**Corequisite(s)**: Nil  
**Credit points**: 12  
**Contact hours**: 3 per week  
**Campus**: Gardens Point  
**Teaching period**: 2009 SEM-2  
**Incompatible with**: Nil

**INB182 INTRODUCING DESIGN**  
TBA  
**Antirequisites**: DEB101  
**Credit points**: 12  
**Contact hours**: 4 per week  
**Campus**: Gardens Point  
**Teaching period**: 2010 SEM-1

**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 to 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

**INB204 SPECIAL TOPIC 1**

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.

**Prerequisites:** INB371  
**Assumed knowledge:** Knowledge of programming in Java, C# or C++. Knowledge of basic data structures (stacks, queues, trees, linked lists, hash tables), complexity analysis  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1 and 2011 SEM-2

**INB204 SPECIAL TOPIC 1**

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.

**Prerequisite(s):** Nil  
**Corequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-1 and 2009 SEM-2  
**Incompatible with:** Nil

**INB205 SPECIAL TOPIC 2**

This unit introduces computational techniques involving numerical simulations and visualization. These skills will be applied to solve problems in a range of application areas. The programming language MATLAB will be used, along with the simulation environment NetLogo.

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

**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.

**Prerequisite(s):** Nil  
**Corequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-2  
**Incompatible with:** ITB004 and ITB115

**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

**INB221 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:** INB103 or ITB002 or INB120 or ITB360
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-1

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

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.

Prerequisite(s): Nil
Corequisite(s): Nil
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2009 SEM-1 and 2009 SEM-2
Incompatible with: ITB006

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: ITN241, ITN251 and ITN366
Equivalents: ITB366, ITB241
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2010 SEM-2
Incompatible with: ITB006
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-1 and 2011 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.

**Prerequisite(s):** INB104  
**Corequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-1 and 2009 SEM-2  
**Incompatible with:** ITB003, ITB112, ITB411 or equivalent

### 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

### 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:** 2010 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
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.

**Prerequisite(s):** Nil  
**Corequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-2  
**Incompatible with:** Nil

### INB280 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.

**Prerequisites:** INB180  
**Equivalents:** ITB016, ITN016  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2010 SEM-2

### INB280 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.

**Prerequisites:** INB180  
**Equivalents:** ITB016, ITN016  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2
INB280 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.

Prerequisite(s): INB180  Corequisite(s): Nil  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2009 SEM-1 and 2009 SEM-2  Incompatible with: Nil

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: 2010 SEM-1

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.

Prerequisite(s): ITB016 Fundamentals of Game Design and ITB001 Problem-Solving & Programming  Corequisite(s): Nil  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2009 SEM-1  Incompatible with: Nil

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

INB300 PROFESSIONAL PRACTICE IN IT
In this unit you will have the opportunity to experience real world work experiences and to reflect on how your studies have prepared you for the work environment. This will give you the opportunity to plan on how to best take advantage of your remaining studies to prepare for your planned career. To help you to understand your future career you will be working in a team and/or group environments, seeing firsthand the challenges and constraints that arise during professional practice in a real world industry environment. You will develop a richer appreciation of the graduate capabilities required of all information technology professionals, particularly skills such as communication, negotiation and problem-solving strategies.

Prerequisites: INB201  Antirequisites: ITS020, INS010, INS011, INS012, INS020  Assumed knowledge: To be taken in your final year of the BIT. You must have completed at least 132 CPs of IT units, including at least two specialisation units. Normally you should have completed at least 192 CPs in a single degree or 288 CPs in a double degree  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INB304 SPECIAL TOPIC 3
Traditional Artificial Intelligence (AI) aims at satisfying the Turing test, that is, it aims at making computers indistinguishable from humans. Computer games AI aims at giving Non-Player Characters (NPC) behavioural artefacts...
that complement a game narrative. Computer game AI is a special area of study that deals with algorithmic approaches to entertainment affects in NPC. Students will develop in this unit an understanding of problems, solutions and algorithms that generally defines the current state of computer game AI. The aim of this unit is to provide students with an intermediate level course in computer game AI that involves a set of the most relevant algorithms and their applications in the interactive entertainment and game industries.

**Prerequisite(s):** Equivalent to INB371 (ITB702 or ITB711) Data Structures And Algorithms  
**Corequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-1 and 2009 SEM-2  
**Incompatible with:** Nil

**INB304 SPECIAL TOPIC 3**  
Traditional Artificial Intelligence (AI) aims at satisfying the Turing test, that is, it aims at making computers indistinguishable from humans. Computer games AI aims at giving Non-Player Characters (NPC) behavioural artefacts that complement a game narrative. Computer game AI is a special area of study that deals with algorithmic approaches to entertainment affects in NPC. Students will develop in this unit an understanding of problems, solutions and algorithms that generally defines the current state of computer game AI. The aim of this unit is to provide students with an intermediate level course in computer game AI that involves a set of the most relevant algorithms and their applications in the interactive entertainment and game industries.

**Prerequisites:** INB210 or ITB004 or INB122  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1 and 2011 SEM-2

**INB305 SPECIAL TOPIC 4**  
INB305 BGIE Project Design Phase (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:** INB371  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1 and 2011 SEM-2

**INB306 PROJECT 1**  
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.

**Prerequisites:** INB101, INB102, INB103, INB104 and INB201  
**Assumed knowledge:** As a minimum requirement you must have completed at least 132 credit points of IT units, including INB101, INB102, INB103, INB104, INB201, four breadth units, and at least two specialisation units.  
**Equivalents:** ITB230  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1, 2011 SEM-2 and 2011 SUM

**INB307 PROJECT 2**  
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.

**Assumed knowledge:** Assumed knowledge is completion of 192cp of which at least 144cp must be IT units  
**Equivalents:** ITB791  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1, 2011 SEM-2 and 2011 SUM

**INB308 PROJECT 3**  
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.
Assumed knowledge: Assumed knowledge is completion of 192 credit points of which at least 144 credit points must be for IT units. Credit points: 12 Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1, 2011 SEM-2 and 2011 SUM

INB311 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: INN311  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

INB313 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.

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

INB320 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.

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

INB321 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: ITB264, ITN264  Assumed knowledge: Completion of 96 credit points of an Undergraduate study is assumed knowledge. Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

INB322 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: ITB264, ITN264  Assumed knowledge: Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2011 SEM-1

INB323 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.

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

INB330 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.

**INB331 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.

**Prerequisites:** ITB239 or INN330  
**Antirequisites:** ITB229  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point

**INB334 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.

**Prerequisites:** ITN274  
**Antirequisites:** ITN330  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point

**INB335 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.

**Prerequisites:** INN335  
**Antirequisites:** ITB322  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INB340 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.

**Prerequisites:** ITB210 or ITB004  
**Antirequisites:** ITB229  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-1

**INB341 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.

It is expected that students undertaking this unit will have prior knowledge of relational database terminology and concepts, be thoroughly able to develop SQL for querying, updating and creating tables, and have a sound knowledge of database design.

**Prerequisites:** ITB210 or ITB004 or INB122  
**Antirequisites:** ITB223  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**INB342 ENTERPRISE DATA MINING AND DATA ANALYSIS**
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:** INB122 or INB210 or INB340 or AYB114  
**Antirequisites:** INN342  
**Equivalents:** ITB239  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2011 SEM-2

**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.

**Prerequisite(s):** Nil  **Corequisite(s):** Nil  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2009 SEM-1  **Incompatible with:** Nil

**INB346 ENTERPRISE 2.0**

Web technologies and applications are reshaping contemporary organisations. By 2009 it has been predicted that more than 80% of organisations will have blogs and more than 50% of organisations will have wikis as part of their business solutions and strategies. Furthermore, with the advent of Cloud Computing, many companies are outsourcing key business functions to external web applications. The successful contemporary organisation requires expertise in not just business and management practice but in the critical design, use and consequences of new and emerging technologies. This unit will explore the ways in which IT has impacted on how organisations design and deliver activities and services internally and externally. The aim of this unit is to provide you with an understanding of how web 2.0 is changing the way contemporary organisations function.

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

**INB347 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.

**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:** 2010 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.

**Prerequisite(s):** INB251  **Corequisite(s):** Nil  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2009 SEM-1  **Incompatible with:** ITB624, ITB629, ITB720, ITN524, ITN529, ITN667, ITN720 or equivalent
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

INB351 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: INB350
Equivalents: ITB721, ITB625, ITB535, ITB525
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2011 SEM-2

INB352 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.

Prerequisites: INB350
Antirequisites: ITB551, ITB628, ITB722, INN352, ITN551, ITN722, ENN523
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2011 SEM-2

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 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
Antirequisites: ITN723
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 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
Antirequisites: ITN723
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: 2011 SEM-1

INB355 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: ITB646, ITB548, ITB566
Assumed knowledge: Maths B or equivalent is assumed knowledge
Equivalents: ITB732
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

**Antirequisites:** ITB745, ITB706, INN365

**Assumed knowledge:** Fundamentals of computer architecture; high level programming languages (such as C, C++, Java, Python) is assumed knowledge.

**Credit points:** 12

**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.

**Prerequisite(s):** INB270 or ITB003 & ITB005

**Corequisite(s):** Nil

**Credit points:** 12

**Contact hours:** 3 per week

**Campus:** Gardens Point

**Teaching period:** 2009 SEM-2

**Incompatible with:** ITB745 & ITB706

**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

**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 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:** 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.

**Prerequisite(s):** INB270 / ITB003 or equivalent  
**Corequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-1  
**Incompatible with:** ITB112(SD2), ITB711, ITB702

**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:** 2010 SEM-2

**INB371 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 or INB371  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-2  
**Incompatible with:** ITB712, ITB612, ITB424

**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.
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.

Prerequisite(s): 144 cp overall of acceptable Bachelor of Games and Interactive Entertainment

Corequisite(s): Nil

Credit points: 12

Contact hours: 1 hour lecture - 2 hour supervisor meetings

Campus: Gardens Point

Teaching period: 2009 SEM-2

Incompatible with: ITB009, INB305

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

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

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

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
project, develop the understanding of the role of careful planning, scope control and task management in ensuring that the project is successful.

**Prerequisite(s):** Students undertaking this unit must be enrolled in the Bachelor of Games and Interactive Entertainment and have completed ITB009

**Corequisite(s):** Nil  
**Credit points:** 24  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-1 and 2009 SEM-2  
**Incompatible with:** ITB020

**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

**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

**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.

**Prerequisite(s):** INB371, (ITB702 & ITB749) and MAB281  
**Corequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-1  
**Incompatible with:** ITB648, ITB649, ITB441, ITN440, ITB460, ITN460, ITB746, ITN746

**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.

**Prerequisite(s):** INB371, INB381 and MAB281  
**Corequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-2  
**Incompatible with:** Nil

**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

**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:** 2010 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
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.
Prerequisite(s): INB371 or MAB281 Antirequisites: INB304 completed in semester 1 2009
Contact hours: 4 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.
Prerequisite(s): INB103 or ITB002 Antirequisites: ITB257
Credit points: 12 Contact hours: 3 per week Campus: Gardens Point
Teaching period: 2011 SEM-1

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.
Prerequisite(s): Nil Corequisite(s): Nil Credit points: 12 Contact hours: 3 per week Campus: Gardens Point
Teaching period: 2009 SEM-2 Incompatible with: ITB259
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  

**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  

**INB860 COMPUTATIONAL INTELLIGENCE FOR CONTROL AND EMBEDDED SYSTEMS**  
This is a specialisation unit in the area of Infomechatronics that introduces five methods from the field of computational intelligence and relates them to applications on real time control and embedded systems. The methods are: Knowledge Base Systems, Fuzzy Control, Neural Networks, Reinforcement Learning and Evolutionary Computation. The unit is also intended to teach the specific design and programming skills that will enable you to solve problems using computational intelligence methods in real-time embedded systems. It is assumed that you already have knowledge of programming.

Assumed knowledge: Knowledge of a programming language like Python, Java or C is assumed.  
Equivalents: ITB847  Credit points: 12  
Contact hours: 3 per week  Campus: Gardens Point  
Teaching period: 2011 SEM-1  

**INS350 CCNA 1&2 NETWORK FUNDAMENTALS AND ROUTING**  
This unit provides in-demand Internet technology skills for designing, building and maintaining networks. Combining instructor-led, online education with hands-on laboratory exercises, the curriculum enables students to apply what they learn in class while working on actual networks. From building basic networking skills to advanced VLAN troubleshooting, the Networking Academy curriculum prepares students for industry certification that lead to lifelong opportunities. Particular emphasis is given to using decision-making and problem-solving techniques in the application of science, mathematics, communication and social studies concepts to solve networking problems.

Antirequisites: INS450  
Equivalents: ITS701, ITS601, ITB011, ITN011  
Credit points: 12  
Contact hours: 3 per week  Campus: Gardens Point  
Teaching period: 2011 SEM-1 and 2011 SEM-2  

**INS351 CCNA 3&4 LAN SWITCHING**  
This unit is the second step to a Cisco career certification path. The aim of this unit is to prepare students for the topics covered in Interconnecting Cisco Networking Devices Part 2 (ICND2) v1.0 (640-816) and Cisco Certified Network Associate Exam (CCNA 640-802). The ICND exam is one of the two qualifying exams available to candidates pursuing a two-exam option for the Cisco Certified Network Associate (CCNA) certification and CCNA 640-802, single-exam option for the Cisco Certified Network Associate CCNA certification.

Prerequisites: INS350  
Antirequisites: INS451  
Credit points: 12  
Contact hours: 3 per week  Campus: Gardens Point  
Teaching period: 2011 SEM-1 and 2011 SEM-2  

**INS352 CCNP1: BUILDING SCALABLE INTERNETWORKS**  
This unit is the second step to a Cisco career certification path. It provides more knowledge and practical skills on Wide Area Network through various routing protocols and layer 2 related technologies. This unit provides you with advanced level of study on WAN technologies.

Prerequisites: INS351  
Antirequisites: INS456, INS452  
Assumed knowledge: INS350,CCNA 1/2/3/4 are recommended prior study  
Equivalents: ITS703  
Credit points: 12  
Campus: Gardens Point  

**INS353 CCNP 2: BUILDING MULTI LAYERED SWITCHED NETWORKS**  
This unit provides more knowledge and practical skills on building multi-layered switched networks. The aim of the unit is to provide professional knowledge and skills focusing on multi layered switched networks.

Prerequisites: INS352  
Antirequisites: INS453  
Equivalents: ITS704  
Credit points: 12  
Campus: Gardens Point  

**INS354 CCNP3: BUILDING MULTI LAYERED SWITCHED NETWORKS**  
This unit is the second step to a Cisco career certification path. It provides more knowledge and practical skills on securing enterprise networks with various security technologies. The aim of this unit is to provide professional knowledge and skills focusing on securing LANs and WANs.
environment.

**Prerequisites:** INS350 and INS351  
**Assumed knowledge:** INS350 and INS351 are recommended prior study  
**Equivalents:** ITS705  
**Credit points:** 12

**Campus:** Gardens Point

**INS355 CCNP 4: OPTIMISING CONVERGED NETWORKS**

This unit provides more knowledge and practical skills on optimising converged networks. The aim of the unit is to provide professional knowledge and skills focusing on converged networks.

**Prerequisites:** INS354  
**Antirequisites:** INS455  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:**  
**Gardens Point**

**ITB001 PROBLEM SOLVING AND PROGRAMMING**

This unit aims to give you a positive introduction to the analytical skills required in computer programming. It assumes you have little or no previous programming experience. The unit emphasises generic programming concepts and related problem-solving strategies. The skills you learn in the unit will be applicable to a wide variety of commonly-used, industrially-significant programming and scripting languages.

**Prerequisite(s):** Nil  
**Corequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 4  
**Campus:** Gardens Point  
**Teaching period:** 2008 SEM-1 and 2008 SEM-2  
**Incompatible with:** ITB111

**ITB002 IT PROFESSIONAL STUDIES**

This unit aims to develop your professional skills and capabilities by providing theoretical and practical opportunities in the following areas: how IT teams operate, effective oral and written communication, team meeting processes and procedures, ethical and social responsibilities of the IT professional, information literacy and traits for life long learning. Demonstrable competency in these areas will be an expectation in subsequent units and will be developed further in them.

**Prerequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3  
**Campus:** Gardens Point and Carseldine  
**Teaching period:** 2008 SEM-1 and 2008 SEM-2  
**Incompatible with:** ITB116

**ITB003 OBJECT ORIENTED PROGRAMMING**

Object Oriented Programming aims to develop your software design and development skills gained in ITB001, taking you from "procedural" programming and problem solving into an Object Oriented approach. This unit is required by all IT majors, and is designed to be complimentary to ITB008: Modelling, Analysis and Design. You will use industry standard design approaches coupled with an "industrial strength" OO programming language to design and implement a "real-life" software application. Along the way, you will gain a solid foundation in the principals of OOP, including encapsulation, polymorphism and inheritance, allowing you to solve real-world problems using the Object-Oriented design paradigm.

**Prerequisite(s):** ITB001  
**Credit points:** 12  
**Contact hours:** 4  
**Campus:** Gardens Point  
**Teaching period:** 2008 SEM-1 and 2008 SEM-2  
**Incompatible with:** ITB112

**ITB004 DATABASE SYSTEMS**

The aim of this unit is to introduce you to the structure and role of databases in modern businesses.

**Prerequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3  
**Campus:** Gardens Point  
**Teaching period:** 2008 SEM-1 and 2008 SEM-2  
**Incompatible with:** ITB115

**ITB005 SYSTEMS ARCHITECTURE**

The aims of this unit are twofold. First is to introduce you to the challenging field of Systems Architecture and provide you with practical skills in using a range of modern computer operating systems through the presentation of case studies involving current technology and their relationship and interconnection within a contemporary computer systems architecture; and secondly, to provide you with sufficient knowledge to enable you at the completion of this unit, to make informed choices about areas of specialisation within your degree and be well prepared to undertake specialist units of your choice.

**Prerequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3  
**Campus:** Gardens Point  
**Teaching period:** 2008 SEM-1 and 2008 SEM-2  
**Incompatible with:** ITB115

**ITB006 NETWORKS**

The aim of the unit is to provide an introductory study of computer networks within the IT profession.

**Prerequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3  
**Campus:** Gardens Point  
**Teaching period:** 2008 SEM-1 and 2008 SEM-2  
**Incompatible with:** ITB113

**ITB009 CORE PROJECT MANAGEMENT**

This unit extends your development of the professional, technical and teamwork skills required by IT professionals in practice. It enables you to understand the process of project initiation and to build on this base in the following ITB010 Project 2 (or your Co-op appointment the following year).

**Prerequisite(s):** 144 cp overall including 96 cp of IT units  
**Credit points:** 12  
**Contact hours:** 3  
**Campus:** Gardens Point  
**Teaching period:** 2008 SEM-1 and 2008 SEM-2  
**Incompatible with:** ITB613,ITB240

**ITB016 FUNDAMENTALS OF GAMES DESIGN**

Modern games production is a complex process involving teams in the order of a hundred people or more, 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, as the result of these activities can determine whether the player finds the game enjoyable or not. This subject provides an introduction to game design, by starting with high level conceptual design tasks before moving to more concrete tasks.

**Prerequisite(s):** ITB750  **Credit points:** 12  **Contact hours:** 3  **Campus:** Gardens Point  **Teaching period:** 2008 SEM-1 and 2008 SEM-2

**ITB017 ADVANCED GAMES DESIGN**

Modern games production is a complex process involving teams in the order of a hundred people or more, 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 levels and tasks within a game, to ensure that the player is able to move forward and is rewarded for doing well. These tasks are important as the result can determine whether the player finds the game enjoyable or not. This subject provides an advanced exploration of game design, by examining the tasks that designers need to carry out within the framework of a game world.

**Prerequisite(s):** ITB001 and ITB016  **Credit points:** 12  **Contact hours:** 3  **Campus:** Gardens Point  **Teaching period:** 2008 SEM-2

**ITB020 PROJECT**

The ability to apply knowledge and skills to real-life situations is essential for employment in the games industry. A substantial multi-discipline team-based project, under academic supervision will develop student initiative and ability to apply knowledge and skills in a professional capacity. Completing the project will enable students to appreciate the complementary nature of the different subjects that make up the Computer Games and Interactive Entertainment degree and provide the opportunity for the sharing of expertise between students from different specialist areas within the degree.

**Prerequisite(s):** ITB009  **Credit points:** 24  **Campus:** Gardens Point  **Teaching period:** 2008 SEM-2

**ITB254 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.

**Prerequisite(s):** ITB002  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2008 SEM-2

**ITB257 MULTIMEDIA SYSTEMS**

This unit will explore the concepts underpinning Interactive Digital Technologies and lead to an understanding of the role played by these technologies in the overall knowledge of a computer professional. Whatever direction you choose in your future employment, all sections of the market place will utilise some aspects of multimedia technology. Knowledge in this expanding area will ensure you have the skills appropriate to any field.

**Prerequisite(s):** TBA  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2008 SEM-1  **Incompatible with:** ITN257

**ITB259 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 Multimedia. 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.

**Prerequisite(s):** ITB257  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2008 SEM-2  **Incompatible with:** ITN259

**ITB702 ALGORITHMS AND DATA STRUCTURES**

Fundamentally, all computer programs are an interaction between algorithms and data structures. Algorithms define the sequence of computational steps performed by the program. Data structures determine how the program stores and retrieves information. Both have a major impact on the program's efficiency and effectiveness. In this unit you will be introduced to a variety of common programming abstractions, including both algorithmic problem-solving strategies (e.g., divide-and-conquer, iterative improvement, etc), and commonly-used data structures (e.g., binary trees, indexed tables, etc). In particular, you will learn techniques for assessing the efficiency of algorithms (through complexity analysis), verifying that algorithms are correct (by identifying invariant properties), and implementing data structures in practice (as abstract data types).
Prerequisite(s): ITB003  Credit points: 12  Campus: Gardens Point  Teaching period: 2008 SEM-1

**ITB720 INTERNET PROTOCOLS AND SERVICES**
The aim of this unit is to give you an understanding of the underlying protocols involved in common network services. This unit will also provide you with the skills to program applications that interact with these protocols.

**Prerequisite(s):** ITB003, ITB006  **Credit points:** 12  **Contact hours:** 3  **Campus:** Gardens Point  **Teaching period:** 2008 SEM-1  **Incompatible with:** ITN529, ITB529, ITN667, ITB629, ITB624

**ITB723 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.

**Prerequisite(s):** ITB720  **Credit points:** 12  **Contact hours:** 3  **Campus:** Gardens Point  **Teaching period:** 2008 SEM-1

**ITB730 INFORMATION SECURITY FUNDAMENTALS**
On completing this unit, you should understand the major issues in information security and the implications of interactions between entities, and be aware of international information security management standards. You should have a broad view of the different kinds of protection offered by IT security technology and practice, and understand how they apply within your IT specialisation, i.e. where and how security and compliance issues are likely to arise. You will be able to articulate security issues and with the help of a security specialist, formulate solutions. This unit is important for you as a member of the global community, as a computing professional, and as a foundation for further specialist study in information security topics.

**Prerequisite(s):** ITB006  **Credit points:** 12  **Contact hours:** 3  **Campus:** Gardens Point  **Teaching period:** 2008 SEM-1  **Incompatible with:** ITB161, ITN161, ITB623, ITB523, ITB543, ITN523, ITN511, ITN582, ITN663, ITZ523

**ITB746 MODELLING AND ANIMATION TECHNIQUES**
This 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.

**Prerequisite(s):** ITB711, ITB749 & MAB281  **Credit points:** 12  **Contact hours:** 3  **Campus:** Gardens Point  **Teaching period:** 2008 SEM-1  **Incompatible with:** ITB648, ITB649

**ITB747 REAL TIME RENDERING TECHNIQUES**
This subject 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.

**Prerequisite(s):** ITB746  **Credit points:** 12  **Contact hours:** 3  **Campus:** Gardens Point  **Teaching period:** 2008 SEM-2  **Incompatible with:** ITB648, ITB649

**ITB749 SCIENTIFIC PROGRAMMING**
The aim of this unit is to introduce you to the computational programming techniques required in the development of software for games and simulation. You will cover the theoretical aspects and the techniques required to implement these.

**Prerequisite(s):** ITB003  **Credit points:** 12  **Contact hours:** 3  **Campus:** Gardens Point  **Teaching period:** 2008 SEM-1

**ITB750 COMPUTER GAME 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.

**Prerequisite(s):** ITB002 or equivalent  **Credit points:** 12  **Contact hours:** 3  **Campus:** Gardens Point  **Teaching period:** 2008 SEM-1

**ITB751 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.

**Prerequisite(s):** Nil  **Corequisite(s):** Nil  **Credit points:** 12  **Contact hours:** 4 per week  **Campus:** Kelvin Grove  **Teaching period:** 2009 SEM-1 and 2009
SEM-2 Incompatible with: KIB801, KIB101 Foundations of Communication Design 1

KIB101 FOUNDATIONS OF COMMUNICATION DESIGN 1
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.

Contact hours: 4 per week Campus: Kelvin Grove Teaching period: 2008 SEM-1 Incompatible with: KKB007, KKB818

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: 2010 SEM-1 and 2010 SEM-2

KIB102 VISUAL INTERACTIONS
This unit further develops interface design skills for communications technologies including design priorities, Interaction, visual systems, refinement of concepts, project analysis and problem solving through presentation models.

Prerequisite(s): KIB101/KIB801 Credit points: 12 Contact hours: 3 per week Campus: Kelvin Grove Teaching period: 2009 SEM-2 Incompatible with: KIB802

KIB102 FOUNDATIONS OF COMMUNICATION DESIGN 2
This unit further develops interface design skills for communications technologies including design priorities, Interaction, visual systems, refinement of concepts, project analysis and problem solving through presentation models.

Prerequisite(s): KIB101/KIB801 Contact hours: 3 per week Campus: Kelvin Grove Teaching period: 2008 SEM-2 Incompatible with: KIB802

KIB103 MEDIA TECHNOLOGY 1
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.

Contact hours: 4 per week Campus: Kelvin Grove Teaching period: 2008 SEM-1 Incompatible with: KKB007, KKB818

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 Credit points: 12 Contact hours: 3 per week Campus: Kelvin Grove Teaching period: 2009 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
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

KIB106 CHARACTER DEVELOPMENT, CONCEPTUAL DESIGN AND ANIMATION LAYOUT
This is a unit which 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.
Credit points: 12  Contact hours: 5 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-1
Incompatible with: KIB307

KIB107 INTRODUCTION TO PROGRAMMING FOR 3D
This is a unit which focuses on production technique. It is based in animation production as a base for developing professionals who can program by creating new tools and processes for the 3D graphics environment.
Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2008 SEM-2
Incompatible with: KIB301

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: 2011 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.
Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-1
Incompatible with: KIB825
Kelvin Grove  
Teaching period: 2009 SEM-1  
Incompatible with: KIB816

KIB201 INTERACTIVE WRITING
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.

Contact hours: 3 per week  
Campus: Kelvin Grove  
Teaching period: 2008 SEM-1  
Incompatible with: KIB816

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.

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
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: 2009 SEM-1

KIB213 ANIMATION STUDIO 2: 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.

Prerequisite(s): KIB212    Credit points: 24    Contact hours: 7 per week    Campus: Kelvin Grove    Teaching period: 2008 SEM-2

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.

Prerequisite(s): KIB102 or KIB202 or KIB802 or KIP402    Credit points: 12    Equivalents: KIB210    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

KIB212 ANIMATION STUDIO 1: PREPRODUCTION
Animation Studio 1: Preproduction is a studio unit where you come to grips with the basics of computer graphics production. The unit covers the basic elements of studio practices, networking, teamwork and collaboration as well as introducing character design, layout, conceptual development and the generation of ideas.

Credit points: 24    Contact hours: 7 per week    Campus: Kelvin Grove    Teaching period: 2009 SEM-1

KIB212 ANIMATION STUDIO 1: PREPRODUCTION
Animation Studio 1: Preproduction is a studio unit where you come to grips with the basics of computer graphics production. The unit covers the basic elements of studio practices, networking, teamwork and collaboration as well as introducing character design, layout, conceptual development and the generation of ideas.

Credit points: 12    Contact hours: 7 per week    Campus: Kelvin Grove    Teaching period: 2009 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 KIBP402
Equivalents: KIB210
Credit points: 12
Contact hours: 3 per week
Campus: Kelvin Grove
Teaching period: 2010 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

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.
Credit points: 12
Contact hours: 3 per week
Campus: Kelvin Grove
Teaching period: 2009 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: 2010 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

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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

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.

Credit points: 12  Campus: Kelvin Grove  Teaching period: 2009 SEM-1

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: 2011 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: 2011 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
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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.
Prerequisite(s): KIB205  Credit points: 12  Contact
hours: 3 per week  Campus: Kelvin Grove  Teaching
period: 2009 SEM-1  Incompatible with: KIB310

KIB310 DESIGN STUDIO 3: VIRTUAL ENVIRONMENTS
Design Studio 3: Virtual Environments introduces you to the
design of virtual environments ¿ spaces that can only be
experienced through the existence of new media.
Prerequisite(s): KIB211  Credit points: 24  Contact
hours: 7 per week  Campus: Kelvin Grove  Teaching
period: 2008 SEM-1

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
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interfaces and applications gained in the embodied media
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interfaces and applications gained in the embodied media
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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
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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.
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-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: 2010 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 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: 2010 SEM-2

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
KMB105 MUSIC AND SOUND TECHNOLOGY
This is an introduction to the broad range of options available to the musician in the age of technology. You will explore sequencers and audio programs as tools, mediums and musical instruments, for performance, composition as well as the basics of sound design. NOTE: Semester 1 offered to KM32, IX07, KM35, KM36, KM42 ONLY. Semester 2 offered to all others except those mentioned above.
Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2008 SEM-1 and 2008 SEM-2  Incompatible with: KMB619

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

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.
Prerequisite(s): Assumed knowledge of sound recording and operation of audio editing software  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2008 SEM-2  Incompatible with: KMB626

KMB205 MUSIC AND SOUND TECHNOLOGY
This is an introduction to the broad range of options available to the musician in the age of technology. You will explore sequencers and audio programs as tools, mediums and musical instruments, for performance, composition as well as the basics of sound design. NOTE: Semester 1 offered to KM32, IX07, KM35, KM36, KM42 ONLY. Semester 2 offered to all others except those mentioned above.
Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2009 SEM-1 and 2009 SEM-2  Incompatible with: KMB619

KMB210 COMPUTATIONAL ARTS 1
This unit introduces you to the creative design of visual and sonic art works by implementing processes from which these works unfold on computers. It builds on your computer programming skills to include design fundamentals for sound and vision, and an introduction to various computational processes and their aesthetic outcomes. Computational Arts skills are applicable to work in these areas; interactive computer games, VJs, DJs, web art, and interactive public sculptures.
Prerequisite(s): ITB001  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2008 SEM-1

KMB211 COMPUTATIONAL ARTS 2
This unit extends skills in the creative design of visual and sonic art works using computational processes. It applies computer programming and design skills, introduces advanced computational processes and encourages the development of an individual aesthetic style. This unit incorporates project-based work and presentational opportunities to assist in the development of relevant professional competencies. Computational Arts skills are applicable to work in these areas; interactive computer games, VJs, DJs, web art, and interactive public sculptures.
Prerequisite(s): KKB210  Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2008 SEM-2

KMB216 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.
Credit points: 12  Contact hours: 3 per week  Campus: Kelvin Grove  Teaching period: 2011 SEM-1
digital sound theory.

Prerequisite(s): Assumed knowledge of sound recording and operation of audio editing software  
Credit points: 12  
Contact hours: 3 per week  
Campus: Kelvin Grove  
Teaching period: 2009 SEM-2  
Incompatible with: KMB626

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.  
Credit points: 12  
Contact hours: 3 per week  
Campus: Kelvin Grove and Caboolture  
Teaching period: 2011 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.  
Credit points: 12  
Contact hours: 3 per week  
Campus: Kelvin Grove and Caboolture  
Teaching period: 2009 SEM-2  
Incompatible with: KMB638

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.  
Credit points: 12  
Contact hours: 3 per week  
Campus: Kelvin Grove and Caboolture  
Teaching period: 2008 SEM-2  
Incompatible with: KMB638

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

KMB108 SOUND RECORDING AND ACOUSTICS
This is an introduction to the fundamentals of the physical world of sound, basic signal flow, sound recording and acoustics.  
Credit points: 12  
Contact hours: 3 per week  
Campus: Kelvin Grove  
Teaching period: 2009 SEM-1 and 2009 SEM-2  
Incompatible with: KMB621

KMB108 SOUND RECORDING AND ACOUSTICS
This is an introduction to the fundamentals of the physical world of sound, basic signal flow, sound recording and acoustics.  
Credit points: 12  
Contact hours: 3 per week  
Campus: Kelvin Grove  
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: 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.  
Equivalents: KMB105, KMB619  
Credit points: 12  
Contact hours: 3 per week  
Campus: Kelvin Grove  
Teaching period: 2010 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.  
Equivalents: KMB105, KMB619  
Credit points: 12  
Contact hours: 3 per week  
Campus: Kelvin Grove  
Teaching period: 2011 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.

**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Kelvin Grove  
**Teaching period:** 2009 SEM-1  
**Incompatible with:** KVB755

**KVB105 FOUNDATIONS OF DRAWING FOR ANIMATION**
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.

**Contact hours:** 3 per week  
**Campus:** Kelvin Grove  
**Teaching period:** 2008 SEM-1  
**Incompatible with:** KVB755

**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.

**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Kelvin Grove  
**Teaching period:** 2008 SEM-1  
**Incompatible with:** KVB755

**KVB105 FOUNDATIONS OF DRAWING FOR ANIMATION**
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.

**Prerequisite(s):** Nil  
**Corequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point and External  
**Teaching period:** 2009 SEM-1 and 2009 SEM-2  
**Incompatible with:** Nil

**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.

**Prerequisite(s):** Nil  
**Corequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Gardens Point and External  
**Teaching period:** 2009 SEM-1 and 2009 SEM-2  
**Incompatible with:** Nil
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 hours per week Campus: Gardens Point Teaching period: 2008 SEM-1 and 2008 SEM-2 Incompatible with: LWB102, LWB132

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.
Prerequisite(s): LWB136 Corequisite(s): Nil 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.
Prerequisite(s): LWB136 Corequisite(s): Nil Credit points: 12 Contact hours: 3 hours per week Campus: Gardens Point and External Teaching period: 2011 SEM-1 and 2011 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:** 2009 SEM-1  **Incompatible with:** LWB101, LWB131

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.

**Corequisites:** LWB147  **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 selfregulation will be examined, such as defamation, restrictions on reporting courts and politics, contempt, privacy and confidentiality.

**Prerequisite(s):** LWB147 & LWB148  **Corequisite(s):** Nil  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point and External  **Teaching period:** 2009 SEM-2  **Incompatible with:** Nil

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.

**Prerequisite(s):** LWB138, LWB139 or equivalent  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point and External  **Teaching period:** 2008 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.

**Prerequisite(s):** 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

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.

**Prerequisite(s):** Nil  **Corequisite(s):** Nil  **Credit points:** 12  **Contact hours:** 2 per week  **Campus:** Gardens Point and External  **Teaching period:** 2009 SEM-1  **Incompatible with:** Nil

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:** 2011 SEM-2

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  
**Teaching period:** 2010 SEM-2

**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.  
**Prerequisite(s):** 144 credit points of law units  
**Corequisite(s):** Nil  
**Credit points:** 12  
**Contact hours:** 3 per week.  
**Campus:** Gardens Point and External  
**Teaching period:** 2009 SEM-2  
**Incompatible with:** Nil

**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.  
**Credit points:** 12  
**Contact hours:** 3 per week.  
**Campus:** Gardens Point and External  
**Teaching period:** 2008 SEM-2

**MAB100 MATHEMATICAL SCIENCES 1A**  
This unit includes the following: limits and continuity; introduction to sequences and infinite series; divergence test; comparison test and ratio test; product, quotient and chain rules for derivatives; special techniques (parametric, implicit and logarithmic differentiation); inverses and their derivatives; applications of differentiation to curve sketching; Rolles theorem; mean value theorem; hyperbolic and trigonometric functions including inverses; L’Hôpital’s rule; functions of more than one variable; partial derivatives, differentials and applications; taylor series; Riemann sums; fundamental theorems of integral calculus; solids of revolution; applications.  
**Prerequisite(s):** MAB105 or SA in Senior Maths B (or equivalent)  
**Credit points:** 12  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-1, 2009 SEM-2 and 2009 SUM  
**Incompatible with:** Prior pass in MAB180, MAB131, HA in Senior Maths C

**MAB101 MATHEMATICAL SCIENCES 1B**  
This unit includes the following: functions (polynomial, trigonometric and exponential functions; properties and graphs); arithmetic and geometric progressions, binomial theorem, differentiation and integration (derivatives and integrals for common functions and rules for differentiation and integration of composite functions); Newton’s method, integration techniques such as substitution and parts; reduction formulae; vectors and matrices (vectors interpreted as geometric relationships in space, matrices as representations of linear systems); aspects of vector algebra and unique, non-unique and non-existent solutions to systems of simultaneous equations; complex numbers (Argand diagrams, complex arithmetic, solution of equations).  
**Prerequisite(s):** MAB105 or SA in Senior Maths B (or equivalent)  
**Contact hours:** 4 per week  
**Campus:** Gardens Point  
**Teaching period:** 2008 SUM-2, 2008 SEM-1, 2008 SEM-2 and 2008 SUMMER  
**Incompatible with:** Prior pass in MAB180, MAB131, HA in Senior Maths C

**MAB111 MATHEMATICAL SCIENCES 1B**  
This unit includes the following: limits and continuity, including limits of rational functions, functions involving radicals, trigonometric functions; L’Hôpital’s Rule; differentiation techniques - parametric, logarithmic; inverse functions and their derivatives; partial derivatives. Introduction to differential equations and mathematical modelling. Riemann sums, fundamental theorems of integral calculus; applications including solids of revolution and first-order-separable differential equations. Taylor series, Fourier series and applications. Students must have completed four semesters of Senior Mathematics C with an exit achievement of Sound Achievement, or have
MAB112 MATHEMATICAL SCIENCES 1C
This unit includes the following: introduction to linear algebra including vectors, matrices and linear systems; the real and complex number systems; first and second order differential equations. Students must have completed four semesters of Senior Mathematics C with an exit level of Sound Achievement, or have passed MAB100 (or equivalent).

Prerequisite(s): MAB100 or Senior Mathematics C (or equivalent) Corequisite(s): MAB111 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2009 SUM-2, 2009 SEM-1 and 2009 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

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

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
Gardens Point  
Teaching period: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

MAB122 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.  
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: 2010 SEM-1, 2010 SEM-2 and 2010 SUM

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 in 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

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, elementary trigonometry and elementary calculus in both two and three dimensions. The unit will develop the mathematical concepts and where practicable show how these concepts are then applied in the field of computer graphics.  
Prerequisite(s): ITB003 and Senior Mathematics B or MAB105  
Contact hours: 4 per week  
Campus: Gardens Point  
Teaching period: 2008 SEM-2

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).  
Prerequisite(s): ITB003 and Senior Mathematics B or MAB105  
Credit points: 12  
Contact hours: 4 per week  
Campus: Gardens Point  
Teaching period: 2009 SEM-2

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

MAB312 LINEAR ALGEBRA
This unit covers the following broad topics from linear algebra: matrix analysis; eigenvalues and eigenvectors; vector spaces; inner product spaces.  
Prerequisite(s): MAB111, MAB112  
Credit points: 12  
Contact hours: 4 per week  
Campus: Gardens Point
Teaching period: 2009 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: 2010 SEM-1

MAB312 LINEAR ALGEBRA
This unit includes: matrix algebra; linear systems and an introduction to Maple; vector spaces; inner product spaces; eigenvalues and eigenvectors.
Prerequisite(s): MAB111, MAB112 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2008 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.
Prerequisite(s): BSB115 or CTB115 Credit points: 12 Contact hours: 3 Teaching period: 2009 SEM-1, 2009 SEM-2 and 2009 SUM Incompatible with: MGB211, CTB211, MGB222, CTB232

MGB218 MANAGING BUSINESS GROWTH
Entrepreneurial management is becoming a critical skill for rapidly growing small and medium sized enterprises (SMEs) and for small business units (SBUs) in large corporations. This unit examines and compares the venture growth processes for entrepreneurial managers. This unit focuses on the post start up issues for the entrepreneurial venture. It considers the rapid growth issues in the identification, analysis and learning processes for SMEs.
Prerequisite(s): 96 credit points of approved study Credit points: 12 Contact hours: 3 per week Campus: Gardens Point Teaching period: 2008 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 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.
Prerequisite(s): 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 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.
Prerequisite(s): 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
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:** 2011 SEM-1 and 2011 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 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.

**Prerequisite(s):** BSB115 or CTB115
**Credit points:** 12
**Contact hours:** 3 per week
**Campus:** Gardens Point
**Teaching period:** 2009 SEM-1 and 2009 SEM-2
**Incompatible with:**
- CTB223

**MGB232 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.

**Prerequisite(s):** MGB223
**Equivalents:**
- MGB218
- MGX324
**Credit points:** 12
**Contact hours:** 3
**Teaching period:** 2010 SEM-1

**MGB234 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.

**Prerequisite(s):** MGB223
**Credit points:** 12
**Contact hours:** 3
**Teaching period:** 2009 SEM-1
**Incompatible with:**
- MGB218

**PCB107 PHYSICS AND QUANTITATIVE TECHNIQUES**
This unit includes the following: data and error analysis, geometrical optics (reflection, refraction, dispersion, image formation, optical instruments, photometry); circuit theory and electronics (DC circuits, AC circuits, semiconductors, rectifiers and transistors, digital electronics); waves and acoustics (properties of waves, interference and diffraction of waves, sound waves, measurements of sound).

**Contact hours:** 4.5 per week
**Campus:** Gardens Point
**Teaching period:** 2008 SEM-1

**PCB460 INSTRUMENTATION AND COMPUTATIONAL METHODS**
This lecture/tutorial program includes an integrated practical component. The topics include the following: transducers; signal conditioning; sources of noise; guarding and shielding; analogue to digital and digital to analogue conversion; computer interfacing; data acquisition; sampling theorem; signal averaging; application of Fourier transforms; signal processing (digital filters); statistics of physical measurements, significance testing; least squares methods; interfacing microcontrollers to analogue circuits.

**Prerequisite(s):** PCB361
**Credit points:** 12
**Contact hours:** 5 per week
**Campus:** Gardens Point
**Teaching period:** 2008 SEM-2
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.
Prerequisite(s): PCB250 or PCB375 or PCB496 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2008 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.
Prerequisite(s): PCB375-2 or PCB496 or PQB250 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2011 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.
Prerequisite(s): PQB250 or PCB250 or PCB375 or PCB496 Credit points: 12 Contact hours: 4 per week Campus: Gardens Point Teaching period: 2009 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.
Prerequisite(s): 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.
Prerequisite(s): MAB100 or SA in Senior Maths B (assumed knowledge) Corequisite(s): MAB111 and MAB112 Credit points: 12 Contact hours: 4.5 hours per week Campus: Gardens Point Teaching period: 2009 SEM-2 Incompatible with: PCB250, PQB123

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:** 2011 SEM-2

**PQB251 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

**PQB450 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 comajor in Physics or preparing for a career in secondary education.

**Prerequisite(s):** PQB250 and MAB311  **Credit points:** 12 **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2009 SEM-2

**PQB251 WAVES AND OPTICS**

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**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

**PQB450 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 comajor in Physics or preparing for a career in secondary education.

**Prerequisites:** PQB250 or PCB250, and MAB311  **Credit points:** 12 **Contact hours:** 4 per week  **Campus:** Gardens Point  **Teaching period:** 2010 SEM-2

**PQB251 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.

**Prerequisite(s):** SA in Senior Maths B (assumed knowledge)  **Credit points:** 12 **Contact hours:** 4.5 hours per week  **Campus:** Gardens Point  **Teaching period:** 2009 SEM-2  **Incompatible with:** PCB260
Equivalents: PCB362  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2011 SEM-2

PQB460 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

PQB460 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(s): SCB123 or PCB136 or PCB150  Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point

PQB460 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