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.  

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

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

Find out more about the Cooperative Education Program.  

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.
Further Information
For Further Information about this course please contact:

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

Bachelor of Games & Interactive Entertainment Part time structure

The course consists of four blocks of studies

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Bachelor of Games & Interactive Entertainment Course structure 2009

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Year 3, Semester 2

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Bachelor of Games & Interactive Entertainment Majors
Course structure 2009

**Animation**

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

**Digital Media**

- KIB101 Visual Communication
- KIB102 Visual Interactions
- INB385 Multimedia Systems
- INB386 Advanced Multimedia Systems
- INB345 Mobile Devices

- KIB230 Interface and Information Design
- KIB309 Embodied Interactions
- KIB314 Tangible Media

**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

- Two units selected from the following:
  - DEB201 Digital Communication
  - DAB110 Architectural Design 1
  - 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
  - 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

Bachelor of Games & Interactive Entertainment Minors
Course structure 2009

**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#**

- 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, KVB105, KVB106.

Advanced Software Technologies #
INB365 Systems Programming
INB372 Agile Software Development
INB374 Enterprise Software Architecture
INB382 Real Time Rendering Techniques
OR
INB304 Special Topic 3
# 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

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

Physics for Games
MAB111 Mathematical Sciences 1B
PQB250 Mechanics and Electromagnetism
### 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
- ITB750 Computer Game Studies
- ITB001 Problem Solving and Programming
- ITB002 IT Professional Studies
- DEB101 Introducing Design

#### Year 1, Semester 2
- ITB751 Games Production
  - Block B or Block C Unit
  - 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
- 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
- Block B or Block C or Block D Unit

#### Year 3, Semester 1
- ITB009 Core Project Management

#### Year 3, Semester 2
- ITB020 Project
  - Block B or Block C or Block D Unit
  - Block B or Block C or Block D Unit

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### Bachelor of Games & Interactive Entertainment Majors Course structure

#### Block B Majors (8 units)

| Animation and Computational Arts |
| KIB105 Animation and Motion Graphics |
| KIB106 Character Development, Conceptual Design and Animation Layout |
| KIB107 Introduction to Programming for 3D |
| KIB108 Animation Practices |
| KVB105 Foundations of Drawing for Animation 1 |
| KVB106 Foundations of Drawing for Animation 2 |
| KKB210 Computational Arts 1 |
| KKB211 Computational Arts 2 |

#### Digital Media
- KIB101 Foundations of Communication Design 1
- KIB102 Foundations of Communication Design 2
- KIB103 Media Technology 1
- ITB254 Interaction Design
- ITB257 Multimedia Systems
- ITB259 Advanced Multimedia Systems
- 2 more units as per discussion with course coordinator

#### Game Design
- ITB016 Fundamentals of Games Design
- ITB017 Advanced Games Design
- KIB201 Interactive Writing
- KIB202 Enabling Immersion
- KIB310 Design Studio 3: Virtual Environments
- Two units selected from the following
  - DEB201 Digital Communication
  - DEB102 Introducing Design History
  - DAB110 Introductory Architectural Design 1
DTB101  Interior Design 1
DNB101  Industrial Design 1

Software Technologies*

* This Major assumes students have obtained a SA or better in Queensland Maths B (or equivalent)
ITB003  Object Oriented Programming
ITB004  Database Systems
ITB005  Systems Architecture
ITB702  Algorithms and Data Structures
ITB746  Modelling and Animation Techniques
ITB747  Real Time Rendering Techniques
ITB749  Scientific Programming
MAB281  Mathematics for Computer Graphics

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
KIB103  Media Technology 1

Entrepreneurship

BSB115  Management, People and Organisations
MGB223  Entrepreneurship and Innovation
MGB218  Managing Business Growth
AMB240  Marketing Planning and Management
AMB251  Innovation and Market Development

Game Design

KIB201  Interactive Writing
KIB202  Enabling Immersion
ITB017  Advanced Games Design
ITB016  Fundamentals of Games Design

Legal Issues

LWB141  Legal Institutions and Method
LWB136  Contracts A
LWB137  Contracts B
LWB142  Law, Society and Justice
LWB480  Media Law
LWB486  Intellectual Property Law

Marketing

BSB126  Marketing
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

Potential Careers:

UNIT SYNOPSES

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.

Prerequisite(s): BSB126 or BSB116 or BSB117 or CTB126
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

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
Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point
Teaching period: 2009 SEM-1, 2009 SEM-2 and 2009 SUM  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. 

**Prerequisite(s):** BSB126 or CTB126  
**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

**AMB251 INNOVATION AND MARKET DEVELOPMENT**

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  
**Corequisite(s):** Nil  
**Credit points:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2008 SEM-1 and 2008 SEM-2  
**Incompatible with:** MIB227

**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  
**Corequisite(s):** Nil  
**Credit points:** 3 per week  
**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. 

**Prerequisite(s):** AMB340; and AMB335 or AMB241  
**Credit points:** 12  
**Teaching period:** 2009 SEM-1 and 2009 SEM-2  
**Incompatible with:** AMB341

**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  
**Contact hours:** 3 per week  
**Campus:** Gardens Point and Caboolture  
**Teaching period:** 2009 SEM-1, 2009 SEM-2 and 2009 SUMMER  
**Incompatible with:** BSD115, 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.

**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.

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

### 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.

**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.

**Contact hours:** 3 per week  
**Campus:** Gardens Point  
**Teaching period:** 2009 SEM-2

### 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:** Gardens Point  
**Teaching period:** 2008 SEM-1

### 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

### 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
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: 4 per week  Campus: Gardens Point  Teaching period: 2009 SEM-1

DNB101 INDUSTRIAL DESIGN 1
Industrial design revolves around the creation of products that satisfy human needs within the constraints of industrial and commercial production. This involves the manipulation of form with an understanding of structure, function, and beauty. Through projects students will be exposed to: basic design elements and principles; introduction to product visualisation techniques including concept sketching and marker rendering; design process and concept development; basic model making techniques; design presentation.
Credit points: 12  Contact hours: 4 per week  Campus: Gardens Point  Teaching period: 2009 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: 2009 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: 2009 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

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.
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.

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

INB104 BUILDING IT SYSTEMS
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.

**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:** ITB001 and ITB003

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

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

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:** 2011 SEM-1

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.

**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

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

**Antirequisites:** INN181  **Equivalents:** ITB751, ITN751  **Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Gardens Point  **Teaching period:** 2011 SEM-2

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

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

**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

**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

**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.

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

**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

**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

**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.

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.

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

INB304 SPECIAL TOPIC 3
Traditional Artificial Intelligence (AI) aims at satifying 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

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

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

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.

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

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.

Prerequisite(s): INB270  Corequisite(s): Nil  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2009 SEM-1  Incompatible with: Nil

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-size 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.

Prerequisite(s): 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.

Prerequisite(s): INB270 or ITB003  Corequisite(s): Nil  Credit points: 12  Contact hours: 3 per week  Campus: Gardens Point  Teaching period: 2009 SEM-2  Incompatible with: ITB717

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

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

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

Prerequisites: Completion of 144 credit points of study  Antirequisites: ITB009  Assumed knowledge: Completion of at least 144 credit points of IT04 units, including including all first year core units is assumed  Credit points: 12  Contact hours: 1 hour lecture - 2 hour supervisor meetings  Campus: Gardens Point  Teaching period: 2011 SEM-1 and 2011 SEM-2
INB380 GAMES PROJECT
This unit seeks to give you the opportunity to apply, under appropriate guidance, the knowledge and skills gained in your course to date and to execute a substantial related project. The unit also aims to allow you to develop the critical professional skills of working within a cross-disciplinary team and, through implementation of your project, develop the understanding of the role of careful planning, scope control and task management in ensuring that the project is successful.

Prerequisites: INB379 or INB305
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.

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 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

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): INB271
Corequisite(s): INB272
Credit points: 12
Contact hours: 3 per week
Campus: Gardens Point
Teaching period: 2009 SEM-1
Incompatible with: ITB257

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

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
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: 4  Campus: Gardens Point and Carseldine  Teaching period: 2008 SEM-1 and 2008 SEM-2  Incompatible with: ITB111

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: 4  Campus: Gardens Point  Teaching period: 2008 SEM-1 and 2008 SEM-2  Incompatible with: ITB114

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: 4  Campus: Gardens Point  Teaching period: 2008 SEM-1 and 2008 SEM-2  Incompatible with: ITB114

ITB009 CORE PROJECT MANAGEMENT
This unit extends your development of the professional, technical and teamwork skills required by IT professionals in practise. 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  Incompatible with: ITB115

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
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  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  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): ITB002 or equivalent Credit points: 12 Contact hours: 3 Campus: Gardens Point Teaching period: 2008 SEM-1 Incompatible with: ITB161, ITN161, ITB623, ITB523, ITB543, ITN523, ITN511, ITN 582, 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: 3 Campus: Gardens Point Teaching period: 2008 SEM-2

KIB101 VISUAL COMMUNICATION
Communication Design deals with visual communication and the creation of meaning through images. This unit will introduce you to the principles, production and presentation of visual design and communication.

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

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.
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.

**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.

**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.

**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.

**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.

**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.

**Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Kelvin Grove  **Teaching period:** 2008 SEM-2  **Incompatible with:** KIB814

**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.

**Credit points:** 12  **Contact hours:** 3 per week  **Campus:** Kelvin Grove  **Teaching period:** 2009 SEM-2  **Incompatible with:** KIB814

**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

**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:** 2008 SEM-1

**KIB230 INTERFACE AND INFORMATION DESIGN**

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  **Incompatible with:** KIB307
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

**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.

**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 and 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.

**Contact hours:** 3 per week  
**Campus:** Kelvin Grove

**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.

**Prerequisite(s):** KIB325  
**Credit points:** 12  
**Contact hours:** 3 per week  
**Campus:** Kelvin Grove  
**Teaching period:** 2009 SEM-2  
**Incompatible with:** KIB310, KIB821

**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.

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

**KKB210 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

**KKB211 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

**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.  
**Contact hours:** 3 per week  **Campus:** Kelvin Grove  **Teaching period:** 2008 SEM-1 and 2008 SEM-2  **Incompatible with:** KMB619

**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:** 2009 SEM-1 and 2009 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. **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

**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:** 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:** 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:** 3 per week  **Campus:** Kelvin Grove and Caboolture  **Teaching period:** 2009 SEM-2  **Incompatible with:** KMB638

**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.  
**Contact hours:** 3 per week  **Campus:** Kelvin Grove  **Teaching period:** 2008 SEM-1 and 2008 SEM-2  **Incompatible with:** KMB621

**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

KVB106 FOUNDATIONS OF DRAWING FOR ANIMATION 2  
This unit develops individual knowledge, concepts and skills to enable you to articulate and present capabilities of motion through drawing for contemporary animation practices.  
Contact hours: 3 per week  
Campus: Kelvin Grove  
Teaching period: 2008 SEM-2  
Incompatible with: KVB756

KVB106 DRAWING FOR ANIMATION  
This unit develops individual knowledge, concepts and skills to enable you to articulate and present capabilities of motion through drawing for contemporary animation practices.

Credit points: 12  
Contact hours: 3 per week  
Campus: Kelvin Grove  
Teaching period: 2008 SEM-2  
Incompatible with: KVB756

LWB136 CONTRACTS A  
This unit includes the following: formation of contracts; equitable estoppel; privity of contract; formalities; express and implied terms; an examination of promises which are legally binding; how contractual promises may be characterised and the significance of that characterisation.

Credit points: 12  
Contact hours: 3 per week  
Campus: Gardens Point  
Teaching period: 2008 SEM-1 and 2008 SEM-2  
Incompatible with: LWB102, LWB132

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

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

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.  
Credit points: 12  
Teaching period: 2008 SEM-1 and 2008 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.
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 & 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

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

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
To enrol you should have (1) at least Sound Achievement in 4 semesters of Mathematics B, or (2) a grade of least 4 in MAB105, or (3) the equivalent. This unit will reinforce the notion of a function with particular emphasis on polynomial, trigonometric, exponential and logarithmic functions including arithmetic and geometric progressions and the binomial theorem. Calculus will be reviewed and expanded with an emphasis on integration and on integration techniques and applications. Vectors and matrices will be introduced with vectors interpreted geometrically and algebraically and matrices as representations of linear systems, with applications. If time permits, complex numbers will be introduced. This unit is incompatible with HA in Senior Mathematics C.
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

MAB100 MATHEMATICAL SCIENCES 1A
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
Limits and continuity, including limits of rational functions, functions involving radicals, trigonometric functions; L'Hopital'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 passed MAB100 (or equivalent).
Prerequisite(s): MAB100 or SA in Senior Maths C
Credit points: 12   Contact hours: 4 per week   Campus: Gardens Point   Teaching period: 2009 SUM-2, 2009 SEM-1 and 2009 SEM-2   Incompatible with: MAB131, MAB180

MAB111 MATHEMATICAL SCIENCES 1C
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'Hopital'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): MAB100 or SA in Senior Maths C
Contact hours: 4 per week   Campus: Gardens Point   Teaching period: 2008 SUM-2, 2008 SEM-1 and 2008 SEM-2   Incompatible with: MAB131, MAB180

MAB112 MATHEMATICAL SCIENCES 1C
This unit includes the following: linear systems and matrices; vector algebra; coordinate systems and trigonometry; introduction to abstract algebraic systems; complex numbers; first and second order differential equations.
Prerequisite(s): MAB100 or Senior Mathematics C (or equivalent)   Corequisite(s): MAB111   Contact hours: 4 per week   Campus: Gardens Point   Teaching period: 2008 SUM-2, 2008 SEM-1 and 2008 SEM-2

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

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, 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 SUM-2, 2008 SEM-2

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.
Prerequisite(s): MAB111, MAB112   Credit points: 12   Contact hours: 4 per week   Campus: Gardens Point   Teaching period: 2009 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 deals with the development of a business plan for the potential launch of student business ideas. 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 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: 2008 SEM-1 and 2008 SEM-2 Incompatible with: CTB223

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

MGB324 MANAGING BUSINESS GROWTH
This unit is designed to provide skills in the analysis, solutions and implementation of the general management issues that SME owners have to manage in their growing operations. The unit brings together the different functional aspects of managing an established SME and how they are best managed from the owner's (general manager's) point of view. It also provides opportunity to bring students into contact with real world SME owners and their venture management issues.
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.
PQB593 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

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: PCB260

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

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

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