

## Faculty of Science and Technology

### University Diploma

IT10 University Diploma in Information Technology

### Bachelor Degree

IT04 Bachelor of Games and Interactive Entertainment

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

IT06 Bachelor of Corporate Systems Management

IT06 Bachelor of Corporate Systems Management - Dean's Scholars Program

IT21 Bachelor of Information Technology

IT22 Bachelor of Information Technology

IT22 Bachelor of Information Technology - Dean's Scholars Program

IT23 Bachelor of Information Technology

IT23 Bachelor of Information Technology - Dean's Scholars Program

IX25 Bachelor of Engineering (Software Engineering)

LS37 Bachelor of Applied Science (Medical Science)

LS50 Bachelor of Biotechnology Innovation

MA54 Bachelor of Mathematics

MA54 + SC60 Bachelor of Mathematics & Bachelor of Applied Science (Honours) - Dean's Scholars Honours Program

PH38 Bachelor of Applied Science - Medical Radiation Technology (Medical Imaging Technology)

PH38 Bachelor of Applied Science - Medical Radiation Technology (Radiotherapy Technology)

SC01 Bachelor of Applied Science

SC01 + SC60 Bachelor of Applied Science & Bachelor of Applied Science (Honours) - Dean's Scholars Accelerated Honours Program

SC40 Bachelor of Biomedical Science

SC45 Bachelor of Pharmacy

ST30 Bachelor of Medical Imaging Science

ST31 Bachelor of Radiation Therapy

ST50 Bachelor of Technology Innovation

ST50 Bachelor of Technology Innovation (Biochemistry)

ST50 Bachelor of Technology Innovation (Biomedical Science)

ST50 Bachelor of Technology Innovation (Biotechnology)

ST50 Bachelor of Technology Innovation (Chemistry)

ST50 Bachelor of Technology Innovation (Digital Media)

ST50 Bachelor of Technology Innovation (Ecology)

ST50 Bachelor of Technology Innovation (Environmental Science)

ST50 Bachelor of Technology Innovation (Forensic Science)

ST50 Bachelor of Technology Innovation (Games Technology)

ST50 Bachelor of Technology Innovation (Geoscience)

ST50 Bachelor of Technology Innovation (Information Technology)

ST50 Bachelor of Technology Innovation (Microbiology)

ST50 Bachelor of Technology Innovation (Physics)

### Bachelor Degree (Double)

IF21 Bachelor of Engineering (Electrical)/ Bachelor of Mathematics  
IF38 Bachelor of Information Technology/Bachelor of Laws  
IF48 Bachelor of Business / Bachelor of Information Technology  
IF58 Bachelor of Mathematics/Bachelor of Information Technology  
IF59 Bachelor of Engineering (Electrical)/Bachelor of Information Technology  
IF61 Bachelor of Applied Science/Bachelor of Business  
IF86 Bachelor of Arts/Bachelor of Applied Science  
IT07 Bachelor of Corporate Systems Management/Bachelor of Information Technology  
IT08 Bachelor of Corporate Systems Management/Bachelor of Information Technology  
IT09 Bachelor of Corporate Systems Management/Bachelor of Games and Interactive Entertainment  
IX02 Bachelor of Applied Science/Bachelor of Education (Secondary)  
IX14 Bachelor of Applied Science/Bachelor of Education (Primary)  
IX26 Bachelor of Applied Science/Bachelor of Information Technology  
IX27 Bachelor of Creative Industries / Bachelor of Information Technology  
IX29 Bachelor of Information Technology/Bachelor of Mathematics  
IX31 Bachelor of Applied Science / Bachelor of Business  
IX33 Bachelor of Business/Bachelor of Information Technology  
IX37 Bachelor of Business / Bachelor of Mathematics  
IX49 Bachelor of Arts/Bachelor of Information Technology  
IX53 Bachelor of Information Technology/Bachelor of Laws  
IX54 Bachelor of Engineering (Electrical)/Bachelor of Information Technology  
IX55 Bachelor of Applied Science(Study Area A)/Bachelor of Information Technology  
IX56 Bachelor of Creative Industries/Bachelor of Information Technology  
IX57 Bachelor of Information Technology/Bachelor of Mathematics  
IX58 Bachelor of Business (Study Area A)/ Bachelor of Information Technology  
IX61 Bachelor of Corporate Systems Management/Bachelor of Justice  
IX62 Bachelor of Business / Bachelor of Corporate Systems Management  
IX63 Bachelor of Business/Bachelor of Games and Interactive Entertainment  
IX64 Bachelor of Games and Interactive Entertainment/Bachelor of Mathematics  
IX65 Bachelor of Applied Science/Bachelor of Games and Interactive Entertainment  
IX69 Bachelor of Fine Arts (Interactive and Visual Design) / Bachelor of Information Technology  
IX72 Bachelor of Applied Science / Bachelor of Laws  
SC20 Bachelor of Applied Science/Bachelor of Mathematics

## **Honours**

IT04 Bachelor of Games and Interactive Entertainment - Dean's Scholars Program  
IT06 Bachelor of Corporate Systems Management - Dean's Scholars Program  
IT22 Bachelor of Information Technology - Dean's Scholars Program  
IT28 Bachelor of Information Technology (Honours)  
IT29 Bachelor of Information Technology (Honours) - Accelerated Program  
MA54 + SC60 Bachelor of Mathematics & Bachelor of Applied Science (Honours) - Dean's Scholars Honours Program  
SC01 + SC60 Bachelor of Applied Science & Bachelor of Applied Science (Honours) - Dean's Scholars Accelerated Honours Program  
SC60 Bachelor of Applied Science (Honours)

## **Graduate Certificate**

IT85 Graduate Certificate in Information Technology  
IT90 Graduate Certificate in Information Technology (Computer Networks)  
IT92 Graduate Certificate in Information Technology (Information Security)  
IT93 Graduate Certificate in Information Technology (Enterprise Wide Software)  
IT94 Graduate Certificate in Information Technology (Electronic Commerce)  
IT95 Graduate Certificate in Information Technology (Project)  
IT96 Graduate Certificate in Information Technology (Information Technology Management)  
IT97 Graduate Certificate in Information Technology (Generic)  
IT98 Graduate Certificate in Information Technology (Multimedia)  
IT99 Graduate Certificate in Information Technology (Component Software and Web Services)  
IX97 Graduate Certificate in Research Commercialisation  
LS66 Graduate Certificate in Biotechnology  
MA65 Graduate Certificate in Mathematical Science  
PH60 Graduate Certificate in Applied Science (Breast Ultrasound)  
PH62 Graduate Certificate in Lighting (on-shore)

## **Graduate Diploma**

IT35 Graduate Diploma in Information Technology (IT Graduates)  
IT37 Graduate Diploma In Information Technology  
IT38 Graduate Diploma in Information Technology (Non-IT Graduates)  
LS76 Graduate Diploma in Biotechnology  
MA75 Graduate Diploma in Mathematical Science  
PH71 Graduate Diploma in Applied Science (Medical Physics)  
PH71 Graduate Diploma in Applied Science (Medical Ultrasound)  
PH72 Graduate Diploma in Lighting (on-shore)  
PH73 Graduate Diploma in Lighting (off-shore)  
PH75 Graduate Diploma in Cardiac Ultrasound  
SC71 Graduate Diploma in Applied Science

## **Masters Degree (Coursework)**

IT40 Master of Information Technology (IT Graduates)  
IT43 Master of Information Technology  
IT43 Master of Information Technology  
IT43 Master of Information Technology (Games Design)  
IT43 Master of Information Technology (Games Production)  
IT43 Master of Information Technology (Information Management)  
IT43 Master of Information Technology (Library and Information Science)  
IT43 Master of Information Technology (Network Management)  
IT43 Master of Information Technology (Security)  
IT43 Master of Information Technology (Software Architecture)  
IT44 Master of Information Technology (Advanced)  
IT44 Master of Information Technology (Advanced)  
IT44 Master of Information Technology (Advanced) (Digital Environments)  
IT44 Master of Information Technology (Advanced) (Enterprise Systems)  
IT44 Master of Information Technology (Advanced) (Executive Information Practice)

IT44 Master of Information Technology (Advanced) (Games Design)  
IT44 Master of Information Technology (Advanced) (Games Production)  
IT44 Master of Information Technology (Advanced) (Information Management)  
IT44 Master of Information Technology (Advanced) (Library and Information Science)  
IT44 Master of Information Technology (Advanced) (Network Management)  
IT44 Master of Information Technology (Advanced) (Security)  
IT44 Master of Information Technology (Advanced) (Software Architecture)  
IT45 Master of Information Technology (Non-IT Graduates)  
IT48 Master of Information Technology (Advanced)  
IT53 Master of Business Process Management  
IT70 Master of Information Management(refer to IT43)  
IX99 Master of Research and Development Management  
LS86 Master of Biotechnology  
LS96 Master of Biotechnology (Advanced)  
MA85 Master of Mathematical Science  
PH80 Master of Applied Science (Medical Physics)  
PH80 Master of Applied Science (Medical Ultrasound)  
PH82 Master of Lighting (on-shore)  
PH83 Master of Lighting (off-shore)  
PH85 Master of Cardiac Ultrasound

### **Masters Degree (Research)**

IT60 Master of Information Technology (Research)  
SC80 Master of Applied Science (Research)

### **Doctoral**

IF49 Doctor of Philosophy (Information Technology)  
IF49 Doctor of Philosophy (Mathematics)  
IF49 Doctor of Philosophy (Science)  
IT80 Doctor of Information Technology  
IT81 Doctor of Information Technology

### **Foundation Programs**

QC01 Accelerated Foundation  
QC02 Standard Foundation  
QC04 Extended Foundation

### **University Certificate**

QC05 University Certificate In Tertiary Preparation

### **Study Abroad (Non-degree)**

U080 University Study Abroad Certificate

### **University wide minors**

Accounting, Economics and Finance  
Advertising, Integrated Marketing Communication, Logistics, Marketing and Public Relations  
Built Environment and Design  
Communication  
Creative Industries  
Engineering

Entertainment

Entrepreneurship, Human Resource Management and Management

Faculty of Health

International Business, Languages, and Tourism and Entertainment Marketing

International Exchange

Justice and Law

Mathematical Sciences

Multimedia and Technologies

Natural Resource Sciences

Unit sets: Physical and Chemical Sciences

Unit sets: Science

Society and Culture

Urban Development and Construction

### **English Programs (International)**

QC10 English for Academic Purposes for Degree programs

QC10 English for Academic Purposes for Foundation and University Diploma Programs

QC22 English for Tertiary Preparation

QC24 English For Academic Purposes Plus

QE05 General English Program (5 Weeks)

QE10 General English Program (10 Weeks)

QE15 General English Program (15 weeks)

QE20 General English Program (20 Weeks)

QE25 General English Program (25 Weeks)

QE30 General English Program (30 Weeks)

QE35 General English Program (35 Weeks)

QE40 General English Program (40 Weeks)

QE45 General English Program (45 Weeks)

## Bachelor of Engineering (Electrical)/ Bachelor of Mathematics (IF21)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 020329J

**Course duration (full-time):** 5 years

**Domestic fees (indicative):** 2011: CSP \$2,883 (indicative) per semester

**International Fees (indicative):** 2011: \$11,875 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419572

**Past rank cut-off:** 81

**Past OP cut-off:** 10

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 480

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-Iyer (Engineering); Professor Helen MacGillivray (Science & Technology)

**Discipline coordinator:** Dr Bouchra Senadji (Engineering); Professor Helen MacGillivray (Mathematics Major)

**Campus:** Gardens Point

### Overview

Mathematics and engineering have always had close connections, but recent advancements in mathematics and statistics are increasingly being used to help solve complex engineering problems.

Electrical and computer engineers design, install and maintain electrical, electronic, telecommunications and computing systems on behalf of government and private companies. A stronger training in mathematics and statistics enhances capabilities in modelling, analysis and design.

### Career Outcomes

Career outcomes for engineering/mathematics double degree students include working in the power industry, robotics, manufacturing and mining. Career opportunities are also found in the telecommunications industry, transport sector, computer industry and transmission industries.

### Professional Recognition

This course meets the requirements for membership of Engineers Australia (EA). EA is a signatory to the Washington Accord, which permits graduates from accredited member courses to work in various countries across the world. The course also meets the coursework requirements for accredited graduate membership of the Australian Mathematical Society. You may also become a member of the Statistical Society of Australia.

### Other Course Requirements

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator.

### Financial Support

You should consider applying for an industry-sponsored mathematics bursary or an engineering scholarship to help you financially throughout your studies. For further information visit [scholarships](#).

### Recommended study

Chemistry, Maths C and Physics.

### International Student Entry

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

### Deferment

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.

### Further Information

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

#### Engineering Coordinator

Dr Bouchra Senadji

Phone: 3138 8228

Email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

#### Science & Technology Coordinator

Professor Helen MacGillivray

Phone: +61 7 3138 2337

Email: [h.macgillivray@qut.edu.au](mailto:h.macgillivray@qut.edu.au)

### Course structure - For students commencing in 2011 (Maths B only)

For students with four semesters of Senior Mathematics B (or equivalent) only, with an exit assessment of at least Sound Achievement.

#### Year 1, Semester 1

ENB100	Engineering and Sustainability
ENB130	Mechanical and Thermal Energy
MAB101	Statistical Data Analysis 1
MAB120	Algebra and Calculus

#### Year 1, Semester 2

ENB200	Introducing Engineering Systems
ENB120	Electrical Energy and Measurements
MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry

#### Year 2, Semester 1

ENB110	Engineering Statics and Materials
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# FACULTY OF SCIENCE AND TECHNOLOGY

ENB250	Electrical Circuits
MAB220	Computational Mathematics 1
MAB311	Advanced Calculus

## Year 2, Semester 2

ENB150	Introducing Engineering Design
MAB210	Statistical Modelling 1
MAB413	Differential Equations
	Mathematics Elective (Level 2)

## Year 3, Semester 1

ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
MAB312	Linear Algebra
MAB314	Statistical Modelling 2

## Year 3, Semester 2

ENB242	Introduction To Telecommunications
ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems
ENB245	Introduction To Design and Professional Practice

## Year 4, Semester 1

ENB301	Instrumentation and Control
ENB340	Power Systems and Machines
ENB342	Signals, Systems and Transforms
	Mathematics Elective (Level 3)

## Year 4, Semester 2

ENB345	Advanced Design and Professional Practice
MAB414	Applied Statistics 2
	Mathematics Elective (Level 3)
	Mathematics Elective (Level 3)

## Year 5, Semester 1

BEB701	Work Integrated Learning 1
BEB801	Project 1
ENB241	Software Systems Design
	OR Electrical Engineering Selective
ENB346	Digital Communications

## Year 5, Semester 2

BEB802	Project 2
ENB344	Industrial Electronics
	Electrical Engineering Selective
	Mathematics Elective (Level 3)

## Electrical Engineering Selectives

ENB339	Introduction to Robotics
ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis

ENB453	Power Equipment and Utilisation
ENB456	Energy
ENB457	Controls, Systems and Applications
ENB458	Modern Control Systems

## Course structure - For students commencing in 2011 (Maths B and Maths C)

For students with four semesters of both Senior Mathematics B and Senior Mathematics C (or equivalent) with an exit assessment of at least Sound Achievement in both subjects.

## Year 1, Semester 1

ENB100	Engineering and Sustainability
ENB130	Mechanical and Thermal Energy
MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry

## Year 1, Semester 2

ENB200	Introducing Engineering Systems
ENB120	Electrical Energy and Measurements
MAB101	Statistical Data Analysis 1
MAB220	Computational Mathematics 1

## Year 2, Semester 1

ENB110	Engineering Statics and Materials
ENB250	Electrical Circuits
MAB210	Statistical Modelling 1
MAB311	Advanced Calculus

## Year 2, Semester 2

ENB150	Introducing Engineering Design
MAB413	Differential Equations
	Mathematics Elective (Level 2)
	Mathematics Elective (Level 2)

## Year 3, Semester 1

ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
MAB312	Linear Algebra
MAB314	Statistical Modelling 2

## Year 3, Semester 2

ENB242	Introduction To Telecommunications
ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems
ENB245	Introduction To Design and Professional Practice

## Year 4, Semester 1

ENB241	Software Systems Design
	OR Electrical Engineering Selective

# FACULTY OF SCIENCE AND TECHNOLOGY

ENB301	Instrumentation and Control
ENB340	Power Systems and Machines
ENB342	Signals, Systems and Transforms

## Year 4, Semester 2

ENB344	Industrial Electronics
ENB345	Advanced Design and Professional Practice
MAB414	Applied Statistics 2
	Mathematics Elective (Level 3)

## Year 5, Semester 1

BEB801	Project 1
ENB346	Digital Communications
	Mathematics Elective (Level 3)
	Mathematics Elective (Level 3)

## Year 5, Semester 2

BEB701	Work Integrated Learning 1
BEB802	Project 2
	Electrical Engineering Selective
	Mathematics Elective (Level 3)

## Electrical Engineering Selectives

ENB339	Introduction to Robotics
ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB456	Energy
ENB457	Controls, Systems and Applications
ENB458	Modern Control Systems

## Mathematics Electives (Level 2)

Select 2 units:

MAB313	Mathematics of Finance
MAB420	Computational Mathematics 2
MAB422	Mathematical Modelling
MAB461	Discrete Mathematics
MAB480	Introduction to Scientific Computation
MAB315	Operations Research 2

## Mathematics Electives (Level 3)

Select two units:

MAB521	Applied Mathematics 3
MAB522	Computational Mathematics 3
MAB524	Statistical Inference
MAB525	Operations Research 3A
MAB533	Statistical Techniques
MAB536	Time Series Analysis
MAB613	Partial Differential Equations

MAB623	Financial Mathematics
MAB624	Applied Statistics 3
MAB625	Operations Research 3B
MAB672	Advanced Mathematical Modelling

NOTES:

- Some deviations from the above course structure may be possible with the permission of the course coordinator. This is more likely to apply in the later years than the earlier years of the course.

## Course structure - For students commencing in 2010 (Maths B only)

For students with four semesters of Senior Mathematics B (or equivalent) only, with an exit assessment of at least Sound Achievement.

## Year 1, Semester 1

ENB100	Engineering and Sustainability
ENB120	Electrical Energy and Measurements
MAB101	Statistical Data Analysis 1
MAB120	Algebra and Calculus

## Year 1, Semester 2

ENB200	Introducing Engineering Systems
ENB130	Mechanical and Thermal Energy
MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry

## Year 2, Semester 1

ENB110	Engineering Statics and Materials
ENB250	Electrical Circuits
MAB220	Computational Mathematics 1
MAB311	Advanced Calculus

## Year 2, Semester 2

ENB150	Introducing Engineering Design
MAB210	Statistical Modelling 1
MAB413	Differential Equations
	Mathematics Elective (Level 2)

## Year 3, Semester 1

ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
MAB312	Linear Algebra
MAB314	Statistical Modelling 2

## Year 3, Semester 2

ENB242	Introduction To Telecommunications
ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems
ENB245	Introduction To Design and Professional



# FACULTY OF SCIENCE AND TECHNOLOGY

## Practice

MAB111 Mathematical Sciences 1B

MAB112 Mathematical Sciences 1C

## Year 4, Semester 1

ENB301 Instrumentation and Control  
ENB340 Power Systems and Machines  
ENB342 Signals, Systems and Transforms  
Mathematics Elective (Level 3)

## Year 2, Semester 1

ENB240 Introduction To Electronics  
ENB246 Engineering Problem Solving  
MAB220 Computational Mathematics 1  
MAB311 Advanced Calculus

## Year 4, Semester 2

ENB345 Advanced Design and Professional Practice  
MAB414 Applied Statistics 2  
Mathematics Elective (Level 3)  
Mathematics Elective (Level 3)

## Year 2, Semester 2

ENB243 Linear Circuits and Systems  
ENB244 Microprocessors and Digital Systems  
MAB210 Statistical Modelling 1  
MAB413 Differential Equations

## Year 5, Semester 1

BEB701 Work Integrated Learning 1  
BEB801 Project 1  
ENB241 Software Systems Design  
OR Electrical Engineering Selective  
ENB346 Digital Communications

## Year 3, Semester 1

ENB242 Introduction To Telecommunications  
ENB350 Real-time Computer-based Systems  
MAB312 Linear Algebra  
MAB314 Statistical Modelling 2

## Year 5, Semester 2

BEB802 Project 2  
ENB344 Industrial Electronics  
Electrical Engineering Selective  
Mathematics Elective (Level 3)

## Year 3, Semester 2

BEB200 Introducing Sustainability  
ENB245 Introduction To Design and Professional Practice  
ENB352 Communication Environments For Embedded Systems  
MAB414 Applied Statistics 2

## Electrical Engineering Selectives

ENB339 Introduction to Robotics  
ENB448 Signal Processing and Filtering  
ENB452 Advanced Power Systems Analysis  
ENB453 Power Equipment and Utilisation  
ENB456 Energy  
ENB457 Controls, Systems and Applications  
ENB458 Modern Control Systems

## Course structure - For students commencing in 2009 (Maths B only)

For students with four semesters of Senior Mathematics B (or equivalent) only, with an exit assessment of at least Sound Achievement.

## Year 1, Semester 1

BEB100 Introducing Professional Learning  
MAB100 Mathematical Sciences 1A  
MAB101 Statistical Data Analysis 1  
PCB136 Engineering Physics 1C

## Year 1, Semester 2

ENB101 Engineering Mechanics 1  
ENB103 Electrical Engineering

## Year 4, Semester 1

ENB301 Instrumentation and Control  
ENB340 Power Systems and Machines  
ENB342 Signals, Systems and Transforms  
Mathematics elective (Level 2)

## Year 4, Semester 2

ENB345 Advanced Design and Professional Practice  
ENB346 Digital Communications  
ENB458 Modern Control Systems  
Mathematics elective (Level 3)

## Year 5, Semester 1

BEB701 Work Integrated Learning 1  
BEB801 Project 1  
Electrical Engineering Selective  
Mathematics elective (Level 3)

## Year 5, Semester 2

BEB802 Project 2  
ENB344 Industrial Electronics  
Mathematics elective (Level 3)  
Mathematics elective (Level 3)

## Electrical Engineering Selectives

ENB339	Introduction to Robotics
ENB440	RF Techniques and Modern Applications
ENB441	Applied Image Processing
ENB445	RF Communication Technologies
ENB446	Wireless Communications
ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB454	Power System Management
ENB455	Power Electronics
ENB456	Energy
ENB457	Controls, Systems and Applications
INB353	Wireless and Mobile Networks
INB860	Computational Intelligence for Control and Embedded Systems

## Course structure - For students commencing in 2007 & 2008 (Maths B only)

For students with four semesters of Senior Mathematics B (or equivalent) only, with an exit assessment of at least Sound Achievement.

### Year 1, Semester 1

BEB100	Introducing Professional Learning
MAB100	Mathematical Sciences 1A
MAB101	Statistical Data Analysis 1
PCB136	Engineering Physics 1C

### Year 1, Semester 2

ENB101	Engineering Mechanics 1
ENB103	Electrical Engineering
MAB111	Mathematical Sciences 1B
MAB112	Mathematical Sciences 1C

### Year 2, Semester 1

ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
MAB220	Computational Mathematics 1
MAB311	Advanced Calculus

### Year 2, Semester 2

ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems
MAB210	Statistical Modelling 1
MAB413	Differential Equations

### Year 3, Semester 1

ENB242	Introduction To Telecommunications
ENB350	Real-time Computer-based Systems

MAB312	Linear Algebra
MAB314	Statistical Modelling 2

### Year 3, Semester 2

ENB245	Introduction To Design and Professional Practice
ENB352	Communication Environments For Embedded Systems
MAB414	Applied Statistics 2 Mathematics elective (Level 2)

### Year 4, Semester 1

ENB301	Instrumentation and Control
ENB340	Power Systems and Machines
ENB342	Signals, Systems and Transforms Mathematics elective (Level 2)

### Year 4, Semester 2

ENB345	Advanced Design and Professional Practice
ENB346	Digital Communications
ENB458	Modern Control Systems Mathematics elective (Level 3)

### Year 5, Semester 1

BEB701	Work Integrated Learning 1
BEB801	Project 1 Electrical Engineering Selective Mathematics elective (Level 3)

### Year 5, Semester 2

BEB802	Project 2
ENB344	Industrial Electronics Mathematics elective (Level 3) Mathematics elective (Level 3)

## Electrical Engineering Selectives

ENB339	Introduction to Robotics
ENB440	RF Techniques and Modern Applications
ENB441	Applied Image Processing
ENB445	RF Communication Technologies
ENB446	Wireless Communications
ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB454	Power System Management
ENB455	Power Electronics
ENB456	Energy
ENB457	Controls, Systems and Applications
INB353	Wireless and Mobile Networks
INB860	Computational Intelligence for Control and Embedded Systems

## Course structure - For students commencing in 2006

## (Maths B only)

For students with four semesters of Senior Mathematics B (or equivalent) only, with an exit assessment of at least Sound Achievement.

### Year 1, Semester 1

BEB100	Introducing Professional Learning
MAB100	Mathematical Sciences 1A
MAB101	Statistical Data Analysis 1
PCB136	Engineering Physics 1C

### Year 1, Semester 2

ENB101	Engineering Mechanics 1
ENB103	Electrical Engineering
MAB111	Mathematical Sciences 1B
MAB112	Mathematical Sciences 1C

### Year 2, Semester 1

ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
MAB220	Computational Mathematics 1
MAB311	Advanced Calculus

### Year 2, Semester 2

ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems
MAB210	Statistical Modelling 1
MAB413	Differential Equations

### Year 3, Semester 1

ENB242	Introduction To Telecommunications
ENB350	Real-time Computer-based Systems
MAB312	Linear Algebra
MAB314	Statistical Modelling 2

### Year 3, Semester 2

ENB245	Introduction To Design and Professional Practice
ENB352	Communication Environments For Embedded Systems
MAB420	Computational Mathematics 2
MAB480	Introduction to Scientific Computation
	OR
	Computing Elective

### Year 4, Semester 1

ENB301	Instrumentation and Control
ENB340	Power Systems and Machines
ENB342	Signals, Systems and Transforms
	Mathematics elective (Level 2)

### Year 4, Semester 2

ENB345	Advanced Design and Professional Practice
ENB346	Digital Communications
ENB458	Modern Control Systems
	Mathematics elective (Level 3)

### Year 5, Semester 1

BEB701	Work Integrated Learning 1
BEB801	Project 1
	Electrical Engineering Selective
	Mathematics elective (Level 3)

### Year 5, Semester 2

BEB802	Project 2
ENB344	Industrial Electronics
	Mathematics elective (Level 3)
	Mathematics elective (Level 3)

### Electrical Engineering Selectives

ENB440	RF Techniques and Modern Applications
ENB441	Applied Image Processing
ENB445	RF Communication Technologies
ENB446	Wireless Communications
ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB454	Power System Management
ENB455	Power Electronics
ENB456	Energy
ENB457	Controls, Systems and Applications
INB353	Wireless and Mobile Networks
INB860	Computational Intelligence for Control and Embedded Systems

## Course structure - For students commencing in 2010 (Maths B and Maths C)

For students with four semesters of both Senior Mathematics B and Senior Mathematics C (or equivalent) with an exit assessment of at least Sound Achievement in both subjects.

### Year 1, Semester 1

ENB100	Engineering and Sustainability
ENB120	Electrical Energy and Measurements
MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry

### Year 1, Semester 2

ENB200	Introducing Engineering Systems
ENB130	Mechanical and Thermal Energy
MAB101	Statistical Data Analysis 1

MAB220 Computational Mathematics 1

## Year 2, Semester 1

ENB110 Engineering Statics and Materials  
 ENB250 Electrical Circuits  
 MAB210 Statistical Modelling 1  
 MAB311 Advanced Calculus

## Year 2, Semester 2

ENB150 Introducing Engineering Design  
 MAB413 Differential Equations  
 Mathematics Elective (Level 2)  
 Mathematics Elective (Level 2)

## Year 3, Semester 1

ENB240 Introduction To Electronics  
 ENB246 Engineering Problem Solving  
 MAB312 Linear Algebra  
 MAB314 Statistical Modelling 2

## Year 3, Semester 2

ENB242 Introduction To Telecommunications  
 ENB243 Linear Circuits and Systems  
 ENB244 Microprocessors and Digital Systems  
 ENB245 Introduction To Design and Professional Practice

## Year 4, Semester 1

ENB241 Software Systems Design  
 OR Electrical Engineering Selective  
 ENB301 Instrumentation and Control  
 ENB340 Power Systems and Machines  
 ENB342 Signals, Systems and Transforms

## Year 4, Semester 2

ENB344 Industrial Electronics  
 ENB345 Advanced Design and Professional Practice  
 MAB414 Applied Statistics 2  
 Mathematics Elective (Level 3)

## Year 5, Semester 1

BEB801 Project 1  
 ENB346 Digital Communications  
 Mathematics Elective (Level 3)  
 Mathematics Elective (Level 3)

## Year 5, Semester 2

BEB701 Work Integrated Learning 1  
 BEB802 Project 2  
 Electrical Engineering Selective  
 Mathematics Elective (Level 3)

## Electrical Engineering Selectives

ENB339 Introduction to Robotics  
 ENB448 Signal Processing and Filtering  
 ENB452 Advanced Power Systems Analysis  
 ENB453 Power Equipment and Utilisation  
 ENB456 Energy  
 ENB457 Controls, Systems and Applications  
 ENB458 Modern Control Systems

## Course structure - For students commencing in 2009 (Maths B and Maths C)

For students with four semesters of both Senior Mathematics B and Senior Mathematics C (or equivalent) with an exit assessment of at least Sound Achievement in both subjects.

## Year 1, Semester 1

BEB100 Introducing Professional Learning  
 MAB111 Mathematical Sciences 1B  
 MAB112 Mathematical Sciences 1C  
 PCB136 Engineering Physics 1C

## Year 1, Semester 2

ENB101 Engineering Mechanics 1  
 ENB103 Electrical Engineering  
 MAB101 Statistical Data Analysis 1  
 MAB220 Computational Mathematics 1

## Year 2, Semester 1

ENB240 Introduction To Electronics  
 ENB246 Engineering Problem Solving  
 MAB210 Statistical Modelling 1  
 MAB311 Advanced Calculus

## Year 2, Semester 2

BEB200 Introducing Sustainability  
 ENB243 Linear Circuits and Systems  
 ENB244 Microprocessors and Digital Systems  
 MAB413 Differential Equations

## Year 3, Semester 1

ENB242 Introduction To Telecommunications  
 ENB350 Real-time Computer-based Systems  
 MAB312 Linear Algebra  
 MAB314 Statistical Modelling 2

## Year 3, Semester 2

ENB245 Introduction To Design and Professional Practice  
 ENB352 Communication Environments For Embedded Systems  
 MAB414 Applied Statistics 2

# FACULTY OF SCIENCE AND TECHNOLOGY

Mathematics elective (Level 2)

## Year 4, Semester 1

ENB301 Instrumentation and Control  
 ENB340 Power Systems and Machines  
 ENB342 Signals, Systems and Transforms  
 Mathematics elective (Level 2)

## Year 4, Semester 2

ENB345 Advanced Design and Professional Practice  
 ENB346 Digital Communications  
 ENB458 Modern Control Systems  
 Mathematics elective (Level 3)

## Year 5, Semester 1

BEB701 Work Integrated Learning 1  
 BEB801 Project 1  
 Electrical Engineering Selective  
 Mathematics elective (Level 3)

## Year 5, Semester 2

BEB802 Project 2  
 ENB344 Industrial Electronics  
 Mathematics elective (Level 3)  
 Mathematics elective (Level 3)

## Electrical Engineering Selectives

ENB339 Introduction to Robotics  
 ENB440 RF Techniques and Modern Applications  
 ENB441 Applied Image Processing  
 ENB445 RF Communication Technologies  
 ENB446 Wireless Communications  
 ENB448 Signal Processing and Filtering  
 ENB452 Advanced Power Systems Analysis  
 ENB453 Power Equipment and Utilisation  
 ENB454 Power System Management  
 ENB455 Power Electronics  
 ENB456 Energy  
 ENB457 Controls, Systems and Applications  
 INB353 Wireless and Mobile Networks  
 INB860 Computational Intelligence for Control and Embedded Systems

## Course structure - For students commencing in 2007 & 2008 (Maths B and Maths C)

For students with four semesters of both Senior Mathematics B and Senior Mathematics C (or equivalent) with an exit assessment of at least Sound Achievement in both subjects.

## Year 1, Semester 1

BEB100 Introducing Professional Learning  
 MAB111 Mathematical Sciences 1B  
 MAB112 Mathematical Sciences 1C  
 PCB136 Engineering Physics 1C

## Year 1, Semester 2

ENB101 Engineering Mechanics 1  
 ENB103 Electrical Engineering  
 MAB101 Statistical Data Analysis 1  
 MAB210 Statistical Modelling 1

## Year 2, Semester 1

ENB240 Introduction To Electronics  
 ENB246 Engineering Problem Solving  
 MAB220 Computational Mathematics 1  
 MAB311 Advanced Calculus

## Year 2, Semester 2

ENB243 Linear Circuits and Systems  
 ENB244 Microprocessors and Digital Systems  
 MAB413 Differential Equations  
 Mathematics elective (Level 2 or 3)

## Year 3, Semester 1

ENB242 Introduction To Telecommunications  
 ENB350 Real-time Computer-based Systems  
 MAB312 Linear Algebra  
 MAB314 Statistical Modelling 2

## Year 3, Semester 2

ENB245 Introduction To Design and Professional Practice  
 ENB352 Communication Environments For Embedded Systems  
 MAB414 Applied Statistics 2  
 Mathematics elective (Level 2)

## Year 4, Semester 1

ENB301 Instrumentation and Control  
 ENB340 Power Systems and Machines  
 ENB342 Signals, Systems and Transforms  
 Mathematics elective (Level 2)

## Year 4, Semester 2

ENB345 Advanced Design and Professional Practice  
 ENB346 Digital Communications  
 ENB458 Modern Control Systems  
 Mathematics elective (Level 3)

## Year 5, Semester 1

BEB701 Work Integrated Learning 1  
 BEB801 Project 1



Electrical Engineering Selective

Mathematics elective (Level 3)

## Year 5, Semester 2

BEB802 Project 2

ENB344 Industrial Electronics

Mathematics elective (Level 3)

Mathematics elective (Level 3)

## Electrical Engineering Selectives

ENB339 Introduction to Robotics

ENB440 RF Techniques and Modern Applications

ENB441 Applied Image Processing

ENB445 RF Communication Technologies

ENB446 Wireless Communications

ENB448 Signal Processing and Filtering

ENB452 Advanced Power Systems Analysis

ENB453 Power Equipment and Utilisation

ENB454 Power System Management

ENB455 Power Electronics

ENB456 Energy

ENB457 Controls, Systems and Applications

INB353 Wireless and Mobile Networks

INB860 Computational Intelligence for Control and Embedded Systems

## Course structure - For students commencing in 2006 (Maths B and Maths C)

For students with four semesters of both Senior Mathematics B and Senior Mathematics C (or equivalent) with an exit assessment of at least Sound Achievement in both subjects.

## Year 1, Semester 1

BEB100 Introducing Professional Learning

MAB111 Mathematical Sciences 1B

MAB112 Mathematical Sciences 1C

PCB136 Engineering Physics 1C

## Year 1, Semester 2

ENB101 Engineering Mechanics 1

ENB103 Electrical Engineering

MAB101 Statistical Data Analysis 1

MAB220 Computational Mathematics 1

## Year 2, Semester 1

ENB240 Introduction To Electronics

ENB246 Engineering Problem Solving

MAB210 Statistical Modelling 1

MAB311 Advanced Calculus

## Year 2, Semester 2

ENB243 Linear Circuits and Systems

ENB244 Microprocessors and Digital Systems

MAB413 Differential Equations

Mathematics elective (Level 2 or 3)

## Year 3, Semester 1

ENB242 Introduction To Telecommunications

ENB350 Real-time Computer-based Systems

MAB312 Linear Algebra

MAB314 Statistical Modelling 2

## Year 3, Semester 2

ENB245 Introduction To Design and Professional Practice

ENB352 Communication Environments For Embedded Systems

MAB420 Computational Mathematics 2

MAB480 Introduction to Scientific Computation

OR

Computing Elective

## Year 4, Semester 1

ENB301 Instrumentation and Control

ENB340 Power Systems and Machines

ENB342 Signals, Systems and Transforms

Mathematics elective (Level 2)

## Year 4, Semester 2

ENB345 Advanced Design and Professional Practice

ENB346 Digital Communications

ENB458 Modern Control Systems

Mathematics elective (Level 3)

## Year 5, Semester 1

BEB701 Work Integrated Learning 1

BEB801 Project 1

Electrical Engineering Selective

Mathematics elective (Level 3)

## Year 5, Semester 2

BEB802 Project 2

ENB344 Industrial Electronics

Mathematics elective (Level 3)

Mathematics elective (Level 3)

## Electrical Engineering Selectives

ENB440 RF Techniques and Modern Applications

ENB441 Applied Image Processing

ENB445 RF Communication Technologies

ENB446 Wireless Communications



ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB454	Power System Management
ENB455	Power Electronics
ENB456	Energy
ENB457	Controls, Systems and Applications
INB353	Wireless and Mobile Networks
INB860	Computational Intelligence for Control and Embedded Systems

**Potential Careers:**

Electrical and Computer Engineer, Electrical Engineer, Mathematician, Statistician.

## **Bachelor of Information Technology/Bachelor of Laws (IF38)**

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 006385G

**Course duration (full-time):** 5 Years

**Domestic fees (indicative):** 2011: CSP \$4,209 per semester (indicative)

**International Fees (indicative):** 2011: \$11,875 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419622

**Past rank cut-off:** 90

**Past OP cut-off:** 6

**Assumed knowledge:** English (4, SA), and for games technology and security majors, Maths B (4, SA), or for all other majors, 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:** 528

**Course coordinator:** Mr Richard Thomas (Science and Technology); Dr. Bill Dixon (Director Undergraduate Law Programs)

**Campus:** Gardens Point

### **OP Guarantee**

The OP Guarantee does not apply to this program.

### **Overview**

An objective of this double degree is to provide graduates with the ability to practise law in light of the complex environments generated by manufacturers, data processing consultancies and private and government organisations. Alternatively, graduates can choose to practise as computing professionals specialising in legal applications or information systems.

### **Cooperative Education Program**

The Faculty of Science and Technology's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your degree. Students wishing to participate in the Cooperative Education Program should be aware that they will not receive financial support as a Dean's Scholar for the duration of the placement.

Find out more about the Cooperative Education Program.

### **Career Outcomes**

Graduates of the Bachelor of Information Technology component may find employment as a: Programmer Systems Programmer Systems Manager Systems Designer Systems Analyst Computer Sales and Marketing Consultant Data Processing Manager

### **Professional Recognition**

The Bachelor of Information Technology component meets the knowledge requirements for membership of the

Australian Computer Society. The Bachelor of Laws component covers the areas of law required for the purposes of admission to practise as a Solicitor and/or Barrister in all Australian states and territories.

### **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.

### **Further Information**

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

#### **Faculty of Science and Technology**

Phone +61 7 3138 2782

Fax +61 7 3138 2703

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

#### **Faculty of Law**

Phone: +61 7 313 82707

Fax: +61 7 313 82222

Email: [law\\_enquiries@qut.edu.au](mailto:law_enquiries@qut.edu.au)

### **IT Elective Unit List**

#### **Information Technology Elective Unit List**

INB104	Building IT Systems
INB103	Industry Insights
INB270	Programming
INB210	Databases
INB250	Foundations of Computer Science
INB251	Networks
INB271	The Web
INB301	The Business of IT
INB302	IT Capstone Project
INS011	Co-operative Education 1
INS351	CCNA 3&4 Lan Switching
INB280	Fundamentals of Game Design
INB281	Advanced Game Design
INB341	Software Development With Oracle
INB311	Enterprise Systems
INB340	Database Design
INB306	Project 1
INB312	Enterprise Systems Applications
INB342	Enterprise Data Mining and Data Analysis
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB330	Information Management

INB320	Business Process Modelling
INB335	Information Resources
INB120	Corporate Systems
INB122	Organisational Databases
INB123	Project Management Practice
INB124	Information Systems Development
INB220	Business Analysis
INB221	Technology Management
INB325	Corporate Systems Management Project
INB371	Data Structures and Algorithms
INB305	Special Topic 4
INB272	Interaction Design
INB365	Systems Programming
INB372	Agile Software Development
INB370	Software Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB255	Security
INB353	Wireless and Mobile Networks
INB355	Cryptology and Protocols
INB382	Real Time Rendering Techniques
INB381	Modelling and Animation Techniques
INB181	Introduction to Games Production
INB180	Computer Games Studies
INB204	Special Topic 1
INB205	Special Topic 2
INB304	Special Topic 3
INB860	Computational Intelligence for Control and Embedded Systems
MAB281	Mathematics for Computer Graphics

**Potential Careers:**

Barrister, Business Analyst, Crown Law Officer, Database Manager, Electronic Commerce Developer, In-House Lawyer, Programmer, Public Servant, Solicitor, Systems Analyst, Systems Manager, Systems Programmer, Web Designer.

## **Bachelor of Business / Bachelor of Information Technology (IF48)**

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 022137A

**Course duration (full-time):** 4 or 4.5 years

**Domestic fees (indicative):** 2011: CSP \$4,209 per semester (indicative)

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419202

**Past rank cut-off:** 80

**Past OP cut-off:** 10

**Assumed knowledge:** English (4, SA), and for games technology and security majors, Maths B (4, SA), or for all other majors, 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:** 432

**Standard credit points per full-time semester:** 54 (average) for 8 semesters; 48 for 9 semesters

**Course coordinator:** Richard Thomas (Science and Technology); Dr Claire Gardiner, Director of Undergraduate Studies (QUT Business School)

**Discipline coordinator:** Mrs Sherrena Buckby (Accountancy); ASPRO Gayle Kerr (Advertising); Dr Tommy Tang (Economics); Dr John Chen (Finance); Mr Greg Southey (Human Resource Management); Mr Michael Cox (International Business); Dr Henri Burgers (Management); Mr Bill Proud (Marketing); and Ms Amisha Mehta (Public Relations)

**Campus:** Gardens Point

### **IT Elective Unit List**

#### **Information Technology Elective Unit List**

INB104	Building IT Systems
INB103	Industry Insights
INB270	Programming
INB210	Databases
INB250	Systems Architecture
INB251	Networks
INB271	The Web
INB301	The Business of IT
INB302	Capstone Project
INS011	Co-operative Education 1
INS351	CCNA 3&4 Lan Switching
INB280	Fundamentals of Game Design
INB281	Advanced Game Design
INB341	Software Development With Oracle
INB311	Enterprise Systems
INB340	Database Design
INB306	Project 1
INB312	Enterprise Systems Applications

INB342	Enterprise Data Mining
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB330	Information Management
INB320	Business Process Modelling
INB335	Information Resources
INB120	Corporate Systems
INB122	Organisational Databases
INB123	Project Management Practice
INB124	Information Systems Development
INB220	Business Analysis
INB221	Technology Management
INB325	Corporate Systems Management Project
INB371	Data Structures and Algorithms
INB272	Interaction Design
INB305	Special Topic 4
INB365	Systems Programming
INB372	Agile Software Development
INB373	Web Application Development
INB370	Software Development
INB374	Enterprise Software Architecture
INB350	Internet Protocols and Services
INB351	Computer Network Administration
INB352	Network Planning and Deployment
INB255	Security
INB353	Wireless and Mobile Networks
INB355	Cryptology and Protocols
INB382	Real Time Rendering Techniques
INB381	Modelling and Animation Techniques
INB180	Computer Games Studies
INB181	Introduction to Games Production
INB204	Special Topic 1
INB205	Special Topic 2
INB304	Special Topic 3
INB860	Computational Intelligence for Control and Embedded Systems
MAB281	Mathematics for Computer Graphics

**null**

This course has been discontinued. Currently enrolled students should check with the relevant Faculty for course progression and enrolment advice.

### **Course Updates - List of re-coded and replacement Business units**

#### **Faculty Core units**

## FACULTY OF SCIENCE AND TECHNOLOGY

BSB114	is replaced by BSB124 Working in Business
BSB115	now retitled BSB115 Management
BSB119	now retitled BSB119 Global Business
BSB122	is replaced by BSB123 Data Analysis

### Accountancy Core units

AYB121	is now AYB200 Financial Accounting AYB121
AYB220	is now AYB340 Company Accounting AYB220
AYB301	now retitled AYB301 Audit and Assurance

### Advertising Core units

AMB221	is now AMB318 Advertising Copywriting
AMB222	is now AMB319 Media Planning
AMB321	is now AMB339 Advertising Campaigns

### Banking and Finance Core units

EFB101	is replaced by EFB222 Quantitative Methods for Economics and Finance
EFB102	now retitled EFB223 Economics 2

### Economics Core units

EFB101	is replaced by EFB222 Quantitative Methods for Economics and Finance
EFB102	now retitled EFB223 Economics 2
EFB202	is replaced by EFB330 Intermediate Macroeconomics
EFB211	is replaced by EFB331 Intermediate Microeconomics
EFB314	is replaced by EFB336 International Economics
EFB329	is now EFB338 Contemporary Application of Economic

### Electronic Business Core units

BSB212	is replaced by AYB114 Business Technologies
BSB213	is replaced by AYB115 Governance Issues and Fraud
BSB314	is replaced by Forensic and Business Intelligence
ITB233	is now INB312 Enterprise Systems Application
ITB823	is now INB830 Web Sites for E-Commerce
ITB239	is now INB342 Enterprise Data Mining

### Human Resource Management Core units

MGB220	now retitled MGB220 Business Research Methods
MGB221	is now MGB339 Performance and Reward

### International Business Core units

IBB202	is replaced by EFB240 Finance for International Business
IBB208	IBB208 is no longer offered. Please contact the School of AMPR regarding a replacement unit. (Email: ampradmin@qut.edu.au)
IBB210	is now replaced by AMB210 Importing and Exporting

IBB213	is now AMB336 International Marketing
IBB217	IBB217 is no longer offered. Please contact the School of AMPR regarding a replacement unit. (Email: ampradmin@qut.edu.au)
IBB300	is now AMB369 International Business Strategy
IBB308	is replaced by MGB340 International Business in the Asia-Pacific

### Management Core units

MGB310	Sustainability in a Changing Environment was formerly known as MGB212 and MGB334
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### Marketing Core units

AMB241	is now AMB335 E-Marketing Strategies
AMB341	is now AMB359 Strategic Marketing

### Public Relations Core units

AMB260	is replaced by AMB263 Introduction to Public Relations
AMB360	is replaced by AMB373 Corporate Communication
AMB361	is replaced by AMB379 Public Relations Campaigns

### Business Law and Tax Extended Major (BLX)

AYB223	replaced by AYB230 Corporations Law
AYB325	is now AYB219 Taxation Law
AYB305	is replaced by AYB205 Law of Business Entities
AYB312	is now AYB232 Financial Institutions

### Professional Accounting Extended Major (PAX)

AYB223	is replaced by AYB230 Corporations Law
AYB325	is now AYB219 Taxation Law

### Advertising Extended Major (ADX)

AMB230	now retitled AMB230 Digital Promotions
AMB330	now retitled AMB330 Advertising Planning Portfolio

### Banking Extended Major (BFX)

AYB312	is now AYB232 Financial Institutions Law
EFB200	is replaced by EFB333 Introductory Econometrics
EFB318	is replaced by EFB335 Investments

### Financial Economics Extended Major (FEX) (for Banking & Finance Students)

EFB200	is replaced by EFB333 Introductory Econometrics
EFB202	is replaced by EFB330 Intermediate Macroeconomics
EFB211	is replaced by EFB331 Intermediate Microeconomics
EFB325	is replaced by EFB336 International Economics



# FACULTY OF SCIENCE AND TECHNOLOGY

EFB318	is replaced by EFB335 Investments
EFB324	is replaced by EFB337 Game Theory and Applications

## Financial Economics Extended Major (FEX) (for Economics Students)

EFB200	is replaced by EFB333 Introductory Econometrics
EFB324	is replaced by EFB201 Financial Markets
EFB325	is replaced by EFB337 Game Theory and Applications

## Funds Management Extended Major (FDX)

EFB318	is replaced by EFB335 Investments
AYB312	is now AYB232 Financial Institutions Law
EFB200	is replaced by EFB333 Introductory Econometrics

## Human Resource Management Extended Major (HRX)

MGB315	is now MGB370 Personal and Professional Development
IBB205	is now MGB225 Intercultural Communication and Negotiation Skills
MGB310	Sustainability in a Changing Environment was formerly known as MGB212 and MGB334

## International Business Extended Major (IBX)

IBB205	is now MGB225 Intercultural Communication and Negotiation Skills
IBB303	is now AMB303 International Logistics
AMB230	now retitled AMB230 Digital Promotions
IBB312	is replaced by AMB300 Independent Project 1

## Management Extended Major (MNX)

IBB205	is now MGB225 Intercultural Communication and Negotiation Skills
MGB218	is now MGB324 Managing Business Growth
MGB315	is now MGB370 Personal & Professional Development
IBB210	is replaced by AMB210 Import and Exporting
IBB303	is now AMB303 International Logistics

## Marketing Extended Major (MKX)

AMB251	now retitled AMB251 Innovation and Brand Management
AMB260	is replaced by AMB263 Introduction to Public Relations
AMB351	is now AMB209 Tourism Marketing
AMB352	is replaced by AMB252 Business Decision Making
AMB354	is now AMB208 Events Marketing
IBB213	is now AMB336 International Marketing
IBB303	is now AMB303 International Logistics

## Public Relations Extended Major (PRX)

AMB370	is replaced by AMB374 Global Public Relations
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Cases

AMB371	is replaced by AMB375 Public Relations Management
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## Business Law and Tax Specialisation (BLS)

AYB223	is replaced by AYB230 Corporations Law
AYB325	is now AYB219 Taxation Law
AYB305	is now AYB205 Company Law & Practice
AYB312	is now AYB232 Financial Institutions Law
BSB213	is now AYB115 Governance Issues in E-Business

## Electronic Business Specialisation (EUS)

BSB212	is replaced by AYB114 Business Technologies
BSB213	is replaced by AYB115 Governance Issues and Fraud
BSB314	is replaced by AYB341 Forensic and Business Intelligence
ITB233	is now INB312 Enterprise Systems Applications
ITB823	is now INB830 Web Sites for E-Commerce
ITB239	is now INB342 Enterprise Data Mining

## Financial Economics Specialisation (FES)

EFB102	is replaced by EFB223 Economics 2
EFB202	is replaced by EFB330 Intermediate Macroeconomics
EFB211	is replaced by EFB331 Intermediate Microeconomics
EFB329	is now 338 Contemporary Applications of Economics
EFB314	is replaced by EB336 International Economics
EFB324	is replaced by EFB201 Financial Markets
EFB325	is replaced by EFB337 Game Theory and Applications

## Integrated Marketing Communication Specialisation (IMS)

AMB260	is replaced by AMB263 Introduction to Public Relations
AMB230	now retitled AMB230 Digital Promotions
AMB354	is now AMB208 Events Marketing

## International Logistics Specialisation (ILG)

IBB303	is now AMB303 International Logistics
BSB314	is replaced by AYB341 Forensic and Business Intelligence
IBB210	is replaced by AMB210 Importing and Exporting
EFB213	is replaced by AMB252 Business Decision Making (offered Sem 2); OR MGB335 Project Management (offered Sem 1 & 2)

## Sales Specialisation (SALES)

AMB230	now retitled AMB230 Digital Promotion
AMB250	is replaced by MGB225 Intercultural Communication and Negotiation Skills



**International Exchange Specialisation (IEX)**

IBB205 is now MGB225 Intercultural Communication and Negotiation Skills

**Potential Careers:**

Account Executive, Accountant, Actuary, Administrator, Advertising Professional, Banker, Banking and Finance Professional, Business Analyst, Certified Practicing Accountant, Computer Games Developer, Computer Salesperson/Marketer, Corporate Secretary, Database Manager, Economist, Electronic Commerce Developer, Financial Advisor/Analyst, Financial Project Manager, Funds Manager, Government Officer, Home Economist, Human Resource Manager, Information Officer, Information Security Specialist, International Business Specialist, Internet Professional, Investment Manager, Manager, Marketing Officer/Manager, Multimedia Designer, Organisational Communication Specialist, Public Relations Officer/Consultant, Publishing Professional, Risk Manager, Stockbroker, Systems Analyst, Systems Manager, Systems Programmer, Systems Trainer, Technical Officer, Trainer, Web Designer.

## Doctor of Philosophy (Information Technology) (IF49)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 006367J

**Course duration (full-time):** 3 years

**Course duration (part-time):** 6 years

**Domestic fees (indicative):** Aust citizens or PRs will be awarded an RTS/RTA place or a QUT sponsorship for tuition fees. If you exceed the max time, you will be charged - 2011: \$9,750 per semester (indicative)

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**International Entry:** At any time

**Course coordinator:** A/Prof Terry Walsh

**Campus:** Gardens Point and Kelvin Grove

### Further Information

For further information about this course, please contact:

A/Prof Terry Walsh

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### Potential Careers:

Academic, Computer Games Developer, Computer Systems Engineer, Data Communications Specialist, Database Manager, Electronic Commerce Developer, Librarian, Network Administrator, Network Manager, Programmer, Software Engineer, Systems Analyst, Systems Manager, Systems Programmer.

### Course Overview

The Doctor of Philosophy (PhD) is awarded in recognition of a candidate's erudition in a broad field of learning and for notable accomplishment in that field through an original and substantial contribution to knowledge.

The candidate's research must reveal high critical ability and powers of imagination and synthesis and may be in the form of new knowledge or significant and original adaptation, application and interpretation of existing knowledge.

Topics can include multidisciplinary problems suggested by external bodies, for example, industry, government and commerce, with joint supervisors from both academic and outside environments. The candidate's doctoral work can be undertaken either on campus or at an off-campus location approved by QUT. The candidate's PhD will be linked with one of the Faculty's research areas.

### Entry Requirements

Applicants must have a relevant first- or second-class division A honours degree or equivalent from QUT or another recognised institution.

### Research Area

Areas of research interest and contact details can be obtained from the Faculty website.

### Course Structure

The length of the program is generally three years full-time or six years part-time.

Assessment for the doctoral award is based on a program of supervised research and investigation, culminating in a thesis.

Programs may include some coursework in support of the conduct of research and preparation of the thesis. Candidates are required to have regular, face-to-face interaction with supervisors and to participate in University scholarly activities such as research seminars, teaching and publication.

## Doctor of Philosophy (Mathematics) (IF49)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 006367J

**Course duration (full-time):** 3 years

**Course duration (part-time):** 6 years

**Domestic fees (indicative):** Aust citizens or PRs will be awarded an RTS/RTA place or a QUT sponsorship for tuition fees. If you exceed the max time, you will be charged - 2011: \$9,750 per semester (indicative)

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**International Entry:** At any time

**Course coordinator:** A/Prof Terry Walsh

**Discipline coordinator:** A/Prof Terry Walsh

**Campus:** Gardens Point and Kelvin Grove

### Overview

The Doctor of Philosophy in science will suit graduates with an honours or masters degree who wish to seek highly-paid employment prospects in industry and research organisations and universities.

### Entry Requirements

Candidates must have a relevant first-class or second-class division A (upper division) honours degree or an appropriate masters degree.

### Course Description

When enrolling in the doctoral program, you can undertake an approved project in any field of interest supported by a Science research area within the Faculty of Science and Technology (outlined in the Faculty Prospectus).

Please note that these areas of research specialisation are given as a guide only. Staff are happy to discuss these and any related topics. Please contact the program leader of the relevant research area for further information.

You can undertake the course either full-time or part-time. If studying full-time with an appropriate honours degree, you can expect to complete your Doctor of Philosophy degree in three-and-a-half-years.

### Further Information

For further information about this course, please contact:

A/Prof Terry Walsh

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### Potential Careers:

Actuary, Data Communications Specialist, Mathematician, Statistician.

## Doctor of Philosophy (Science) (IF49)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 006367J

**Course duration (full-time):** 3 years

**Course duration (part-time):** 6 years

**Domestic fees (indicative):** Aust citizens or PRs will be awarded an RTS/RTA place or a QUT sponsorship for tuition fees. If you exceed the max time, you will be charged - 2011: \$12,125 per semester (indicative)

**International Fees (indicative):** 2011: \$13,375 (indicative) per semester

**International Entry:** At any time

**Course coordinator:** A/Prof Terry Walsh

**Discipline coordinator:** A/Prof Terry Walsh

**Campus:** Gardens Point and Kelvin Grove

### Overview

The Doctor of Philosophy in science will suit graduates with an honours or masters degree who wish to seek highly-paid employment prospects in industry and research organisations and universities.

### Entry Requirements

Candidates must have a relevant first-class or second-class division A (upper division) honours degree or an appropriate masters degree.

### Course Description

When enrolling in the doctoral program, you can undertake an approved project in any field of interest supported by a Science research area within the Faculty of Science and Technology (outlined in the Faculty Prospectus).

Please note that these areas of research specialisation are given as a guide only. Staff are happy to discuss these and any related topics. Please contact the program leader of the relevant research area for further information.

You can undertake the course either full-time or part-time. If studying full-time with an appropriate honours degree, you can expect to complete your Doctor of Philosophy degree in three-and-a-half years.

### Further Information

For further information about this course, please contact:

A/Prof Terry Walsh

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### Potential Careers:

Biologist, Biotechnologist, Chemist, Chemist Industrial, Clinical Laboratory Scientist, Coastal Scientist, Conservation Biologist, Ecologist, Environmental Scientist, Forensic Scientist, Geologist, Geophysicist, Geoscientist, Hydrogeologist, Industrial Chemist, Marine Scientist, Medical Biotechnologist, Medical Physicist, Medical Scientist, Microbiologist, Molecular Biologist, Natural Resource Scientist, Physicist, Population Ecologist.

## Bachelor of Mathematics/Bachelor of Information Technology (IF58)

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 020327M

**Course duration (full-time):** 4 Years

**Domestic fees (indicative):** 2011: CSP rate available August 2010

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419552

**Past rank cut-off:** 75

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 420 (Note: The minimum course load per semester required for full-time enrolment may be more than 36 credit points)

**Course coordinator:** Dr Gary Carter (Mathematical Sciences Major), Richard Thomas (Information Systems Major)

**Discipline coordinator:** Dr Gary Carter (Mathematics),

**Campus:** Gardens Point

### Career Opportunities

As a graduate you may find employment as a programmer, software engineer, systems programmer, technical support specialist, systems manager, systems designer, computer scientist, security analyst, systems analyst, data communications specialist, mathematician, or statistician.

### Course Structure

The double degree offers a foundation in mathematics and information technology in the first year. You will then select integrated strands combining units from the areas of applicable mathematics, computational mathematics, operations research, statistics, or financial mathematics with a combined major in Data Communications and Software Engineering.

### Professional Recognition

On graduation, you will be eligible for membership of the Mathematical Society of Australia, the Statistical Society of Australia Inc and, depending on unit selection, the Australian Society for Operations Research. Graduates of the Bachelor of Information Technology meet the knowledge requirement for admission to the Australian Computer Society.

### Cooperative Education Program

An optional one-year period of paid work experience in an area of information technology is available to eligible full-time students. The Cooperative Education Program is a joint venture between employers and educators to better prepare students for employment upon graduation. Companies that QUT's Cooperative Education students have worked with include Energex, Boeing, CITEC, Global Banking and Securities Transaction, various Queensland Government

departments, Dialog, TABQ, RACQ and Sun Microsystems.

For more information visit <http://coop.scitech.qut.edu.au/students/whatiscooped.jsp>

### Mathematics Scholarships

Students enrolled in this course can apply for industry-sponsored scholarships. Mathematics equity scholarships are also awarded on the basis of socioeconomic disadvantage.

### 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.

### Further Information

For further information about this course, please contact:

Dr Gary Carter or Richard Thomas

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### IT Elective Unit List

#### Information Technology Elective Unit List

INB104	Building IT Systems
INB103	Industry Insights
INB270	Programming
INB210	Databases
INB250	Foundations of Computer Science
INB251	Networks
INB271	The Web
INB301	The Business of IT
INB302	IT Capstone Project
INS011	Co-operative Education 1
INS351	CCNA 3&4 Lan Switching
INB280	Fundamentals of Game Design
INB281	Advanced Game Design
INB341	Software Development With Oracle
INB311	Enterprise Systems
INB340	Database Design
INB306	Project 1
INB312	Enterprise Systems Applications
INB342	Enterprise Data Mining and Data Analysis
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB330	Information Management
INB320	Business Process Modelling

INB335	Information Resources
INB120	Corporate Systems
INB122	Organisational Databases
INB123	Project Management Practice
INB124	Information Systems Development
INB220	Business Analysis
INB221	Technology Management
INB325	Corporate Systems Management Project
INB371	Data Structures and Algorithms
INB305	Special Topic 4
INB272	Interaction Design
INB365	Systems Programming
INB372	Agile Software Development
INB370	Software Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB255	Security
INB353	Wireless and Mobile Networks
INB355	Cryptology and Protocols
INB382	Real Time Rendering Techniques
INB381	Modelling and Animation Techniques
INB181	Introduction to Games Production
INB180	Computer Games Studies
INB204	Special Topic 1
INB205	Special Topic 2
INB304	Special Topic 3
INB860	Computational Intelligence for Control and Embedded Systems
MAB281	Mathematics for Computer Graphics

**Course structure**

This course has been discontinued. Currently enrolled students should check the Course Summary Sheet (via QUT Virtual) for enrolment and unit information.

**Potential Careers:**

Actuary, Computer Game Programmer, Data Communications Specialist, Database Manager, Market Research Manager, Mathematician, Network Administrator, Network Manager, Programmer, Quantitative Analyst, Software Engineer, Statistician, Systems Analyst.



## **Bachelor of Engineering (Electrical)/Bachelor of Information Technology (IF59)**

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 006384G

**Course duration (full-time):** 5 years

**Domestic fees (indicative):** 2011: CSP \$3,878 (indicative)  
per semester

**International Fees (indicative):** 2011: \$12,000 (indicative)  
per semester

**QTAC code:** 419512

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring  
assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 480

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-Iyer (Engineering),  
Mr Richard Thomas (Science and Technology)

**Discipline coordinator:** Dr Jasmine Banks (Engineering)

**Campus:** Gardens Point

### **DISCONTINUATION**

As of Semester 1 2009, this course has been discontinued  
and replaced by IX54 Bachelor of Engineering  
(Electrical)/Bachelor of Information Technology.

### **Further Information**

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

#### ***Engineering Coordinator***

Phone +61 7 3138 2678

Fax +61 7 3138 1515

Email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

#### ***Science and Technology Coordinator***

Phone: 3138 9353

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### **Potential Careers:**

Computer Systems Engineer, Electrical and Computer  
Engineer, Electrical Engineer, Internet Professional.

**Bachelor of Applied Science/Bachelor of Business (IF61)****Year offered:** 2011**Admissions:** No**CRICOS code:** 042263G**Course duration (full-time):** 4 years**Domestic fees (indicative):** 2011: CSP \$3,358 per semester (indicative)**Domestic Entry:** February**International Entry:** February**QTAC code:** 419832**Past rank cut-off:** 80**Past OP cut-off:** 10**OP Guarantee:** Yes**Assumed knowledge:** English (4, SA) and Maths B (4, SA)**Preparatory studies:** For information on acquiring assumed knowledge visit<http://www.qut.edu.au/assumed-knowledge>**Total credit points:** 432**Standard credit points per full-time semester:** 54 (average)**Course coordinator:** Dr Perry Hartfield (Science and Technology); Director of Undergraduate Studies, QUT Business School; email: [bus@qut.edu.au](mailto:bus@qut.edu.au)**Discipline coordinator:** Ms Sherrena Buckby (Accountancy); ASPRO Gayle Kerr (Advertising); Dr Tommy Tang (Economics); Dr John Chen (Finance); Mr Greg Southey (Human Resource Management); Mr Michael Cox (International Business); Dr Henri Burgers (Management); Mr Bill Proud (Marketing); and Ms Amisha Mehta (Public Relations)**Campus:** Gardens Point**null**

This course has been discontinued. Currently enrolled students should check with the relevant Faculty for course progression and enrolment advice.

**Potential Careers:**

Academic, Account Executive, Accountant, Advertising Professional, Analytical Chemist, Astrophysicist, Banker, Banking and Finance Professional, Biochemist, Biologist, Biomechanical Engineer, Biomedical Engineer, Biotechnologist, Business Analyst, Chemist, Chemist Industrial, Clinical Laboratory Scientist, Coastal Scientist, Conservation Biologist, Ecologist, Economist, Environmental Scientist, Estimator, Exchange Student, Financial Advisor/Analyst, Financial Project Manager, Forensic Scientist, Funds Manager, Geologist, Geophysicist, Geoscientist, Government Officer, Health Physicist, Home Economist, Human Resource Developer, Human Resource Manager, Hydrogeologist, Immunologist, Industrial Chemist, International Business Specialist, Investment Manager, Laboratory Technician (Chemistry), Manager, Marine Scientist, Marketing Officer/Manager, Medical Biotechnologist, Medical Physicist, Microbiologist, Molecular Biologist, Natural Resource Scientist, Physicist, Plant Biotechnologist, Policy Officer, Population Ecologist, Programmer, Public Servant, Stockbroker, Virologist.

## **Bachelor of Arts/Bachelor of Applied Science (IF86)**

**Year offered:** 2011

**Admissions:** No

**Course duration (full-time):** 4 Years

**Domestic fees (indicative):** 2011: CSP \$3,299 per semester (indicative)

**Domestic Entry:** Course has been discontinued

**International Entry:** Course has been discontinued

**Past rank cut-off:** 72

**Past OP cut-off:** 13

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384 (192 cp in the Bachelor of Arts and 192 cp in the Bachelor of Applied Science)

**Standard credit points per full-time semester:** 48

**Course coordinator:** Contract Ms Eve Teague (Arts) - Dr Perry Hartfield (Science and Technology)

**Discipline coordinator:** Dr Perry Hartfield (Biochemistry Major); Dr Marion Bateson (Biotechnology Major); Dr Robert Johnson (Chemistry Major); Dr Ian Williamson (Ecology Major); Dr Robin Thwaites (Environmental Science Major); Dr Emad Kiriakous (Forensic Science Major); Dr Gary Huftile (Geoscience Major); Dr Scott McCue (Mathematics Major); Dr Christine Knox (Microbiology Major); Dr Greg Michael (Physics Major)

**Campus:** Gardens Point and Kelvin Grove

### **Course discontinued**

This course has been discontinued and is open to continuing students only.

### **Career Opportunities**

As a graduate of this course you will receive both a Bachelor of Arts degree and a Bachelor of Applied Science degree. This combination of degrees provides a valuable foundation for a wide range of careers in areas such as government, diplomacy, higher education and public service. Opportunities in tourism, translation, and the hospitality industry are open to those with a Language major. Complementary majors chosen from Arts and Science provide an excellent background for careers in environmental management.

### **Course Design**

A feature of the course design is the flexibility and choice it offers. Students can tailor the double degree to their career interests by combining any one of the 10 majors that are available in the Bachelor of Applied Science (SC01) degree with a specialisation chosen from a wide range of offerings in the humanities.

The program is integrated so that students will study both science and arts units in each semester.

### **Professional Recognition**

Relevant professional bodies for the Bachelor of Applied Science (SC01) are listed under the separate entry for the

course. Eligibility for membership depends on the majors undertaken.

### **Further Information**

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

#### **Humanities Coordinator**

Ms Eve Teague

Phone: +61 7 3138 4541

Email: [e.teague@qut.edu.au](mailto:e.teague@qut.edu.au)

#### **Science and Technology Coordinator**

Dr Perry Hartfield

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### **Example of Full-Time Course Structure**

#### **Year 1, Semester 1**

Major Unit - Arts

Applied Skills and Scholarship

Two Science units (SC01 Level 1): Foundation units

#### **Year 1, Semester 2**

Major Unit - Arts

Discipline Major Unit or Elective unit

Two Science units (SC01 Level 1): at least one Foundation unit

#### **Year 2, Semester 1**

Major Unit - Arts

Discipline Major Unit or Elective unit

Two Science units (SC01 Levels 1 and 2: Level 2 from Major)

#### **Year 2, Semester 2**

Major Unit - Arts

Minor Unit - Arts

Two Science Units (SC01 Levels 1 and 2: Level 2 from Major)

#### **Year 3, Semester 1**

Major Unit - Arts

Discipline Major Unit or Minor Unit or Elective unit - Arts

Two Science Major units (SC01 Level 2)

#### **Year 3, Semester 2**

Minor Unit - Arts

Discipline Major Unit or Minor Unit or Elective unit - Arts

Two Science Major units (SC01 Level 3)

#### **Year 4, Semester 1**

Major Unit - Arts  
 Discipline Major Unit or Minor Unit or Elective unit - Arts  
 Two Science Major units (SC01 Level 3)

SCB120 Plant and Animal Physiology  
 SCB121 Chemistry 2

**Year 4, Semester 2**

Major Unit - Arts  
 Discipline Major Unit or Elective  
 Two Science Major units (SC01 Level 3)

**Year 2, Semester 1**

SCB110 Science Concepts and Global Systems  
 Plus either:  
 MAB101 Statistical Data Analysis 1  
 Or  
 MAB105 Preparatory Mathematics

**Course structure - Major in Biochemistry**

**Year 1, Semester 1**

SCB111 Chemistry 1  
 SCB112 Cellular Basis of Life

**Year 1, Semester 2 (Life Sciences Pre-Major Strand)**

SCB120 Plant and Animal Physiology  
 SCB121 Chemistry 2

**Year 2, Semester 1**

SCB110 Science Concepts and Global Systems  
 Plus either:  
 MAB101 Statistical Data Analysis 1  
 Or  
 MAB105 Preparatory Mathematics

**Year 2, Semester 2**

SCB122 Cell and Molecular Biology  
 SCB123 Physical Science Applications

**Year 3, Semester 1**

LQB381 Biochemistry: Structure and Function  
 LQB383 Molecular and Cellular Regulation

**Year 3, Semester 2**

LQB481 Biochemical Pathways and Metabolism  
 LQB483 Molecular Biology Techniques

**Year 4, Semester 1**

LQB581 Functional Biochemistry  
 LQB582 Biomedical Research Technologies

**Year 4, Semester 2**

LQB681 Biochemical Research Skills  
 LQB682 Protein Biochemistry and Bioengineering

**Course structure - Major in Biotechnology**

**Year 1, Semester 1**

SCB111 Chemistry 1  
 SCB112 Cellular Basis of Life

**Year 1, Semester 2 (Life Sciences Pre-Major Strand)**

**Year 2, Semester 2**

SCB122 Cell and Molecular Biology  
 SCB123 Physical Science Applications

**Year 3, Semester 1**

LQB381 Biochemistry: Structure and Function  
 LQB383 Molecular and Cellular Regulation

**Year 3, Semester 2**

LQB483 Molecular Biology Techniques  
 LQB484 Introduction to Genomics and Bioinformatics

**Year 4, Semester 1**

TWO units selected from:  
 LQB583 Genetic Research Technology  
 LQB584 Medical Cell Biology  
 LQB585 Plant Genetic Manipulation

**Year 4, Semester 2**

TWO units selected from:  
 LQB682 Protein Biochemistry and Bioengineering  
 LQB684 Medical Biotechnology  
 LQB685 Plant Microbe Interactions

**Course structure - Major in Chemistry**

**Year 1, Semester 1**

SCB111 Chemistry 1  
 Plus either:  
 MAB101 Statistical Data Analysis 1  
 Or  
 MAB105 Preparatory Mathematics

**Year 1, Semester 2 (Chemistry Pre-Major Strand)**

SCB112 Cellular Basis of Life  
 SCB121 Chemistry 2

**Year 2, Semester 1**

MAB120 Algebra and Calculus  
 SCB110 Science Concepts and Global Systems

**Year 2, Semester 2**

SCB123 Physical Science Applications

SCB131 Experimental Chemistry

**Year 3, Semester 1**

PQB312 Analytical Chemistry For Scientists and Technologists

PQB331 Structure and Bonding

**Year 3, Semester 2**

PQB401 Reaction Kinetics, Thermodynamics and Mechanisms

PQB442 Chemical Spectroscopy

**Year 4, Semester 1**

PQB502 Advanced Physical Chemistry

PQB531 Organic Mechanisms and Synthesis

**Year 4, Semester 2**

PQB631 Advanced Inorganic Chemistry

PQB642 Chemical Research

**Course structure - Major in Ecology**

**Year 1, Semester 1**

SCB111 Chemistry 1

SCB112 Cellular Basis of Life

**Year 1, Semester 2 (Ecology and Environmental Science Pre-Major Strand)**

SCB120 Plant and Animal Physiology

SCB122 Cell and Molecular Biology

**Year 2, Semester 1**

SCB110 Science Concepts and Global Systems  
Plus either:

MAB101 Statistical Data Analysis 1

Or

MAB105 Preparatory Mathematics

**Year 2, Semester 2**

NQB201 Planet Earth

NQB202 History of Life on Earth

**Year 3, Semester 1**

NQB302 Earth Surface Systems

NQB321 Ecology

**Year 3, Semester 2**

NQB421 Experimental Design

NQB422 Genetics and Evolution

**Year 4, Semester 1**

NQB521 Population Genetics and Molecular Ecology

NQB523 Population Management

**Year 4, Semester 2**

NQB622 Conservation Biology

NQB623 Ecological Systems

**Course structure - Major in Environmental Science**

**Year 1, Semester 1**

SCB111 Chemistry 1

SCB112 Cellular Basis of Life

**Year 1, Semester 2 (Ecology and Environmental Science Pre-Major Strand)**

SCB120 Plant and Animal Physiology

SCB121 Chemistry 2

**Year 2, Semester 1**

SCB110 Science Concepts and Global Systems  
Plus either:

MAB101 Statistical Data Analysis 1

Or

MAB105 Preparatory Mathematics

**Year 2, Semester 2**

NQB202 History of Life on Earth

SCB123 Physical Science Applications

**Year 3, Semester 1**

NQB302 Earth Surface Systems

NQB321 Ecology

**Year 3, Semester 2**

NQB403 Soils and the Environment

NQB421 Experimental Design

**Year 4, Semester 1**

NQB501 Environmental Modelling

NQB502 Field Methods in Natural Resource Sciences

**Year 4, Semester 2**

NQB601 Sustainable Environmental Management

NQB602 Environmental Chemistry

**Course structure - Major in Forensic Science**

**Year 1, Semester 1**

SCB111 Chemistry 1

SCB112 Cellular Basis of Life

**Year 1, Semester 2 (Forensic Science Pre-Major Strand)**

SCB121 Chemistry 2

SCB122 Cell and Molecular Biology

**Year 2, Semester 1**

SCB110 Science Concepts and Global Systems  
Plus either:

MAB101 Statistical Data Analysis 1

Or

MAB105 Preparatory Mathematics

**Year 2, Semester 2**

SCB123 Physical Science Applications

SCB131 Experimental Chemistry

**Year 3, Semester 1**

LQB383 Molecular and Cellular Regulation

SCB384 Forensic Sciences - From Crime Scene to Court

**Year 3, Semester 2**

JSB979 Forensic Scientific Evidence

PQB312 Analytical Chemistry For Scientists and Technologists

**Year 4, Semester 1**

PQB513 Instrumental Analysis

PQB584 Forensic Physical Evidence

**Year 4, Semester 2**

LQB680 Forensic DNA Profiling

PQB684 Forensic Analysis

**Course structure - Major in Geoscience**

**Year 1, Semester 1**

SCB111 Chemistry 1

SCB112 Cellular Basis of Life

**Year 1, Semester 2 (Geoscience Pre-Major Strand)**

NQB201 Planet Earth

SCB123 Physical Science Applications

**Year 2, Semester 1**

SCB110 Science Concepts and Global Systems  
Plus either:

MAB101 Statistical Data Analysis 1  
Or

MAB105 Preparatory Mathematics

**Year 2, Semester 2**

NQB202 History of Life on Earth

SCB222 Exploration of the Universe

**Year 3, Semester 1**

NQB311 Mineralogy

NQB314 Sedimentary Geology

**Year 3, Semester 2**

NQB411 Petrology of Igneous and Metamorphic Rocks

NQB412 Structural Geology and Field Methods

**Year 4, Semester 1**

NQB502 Field Methods in Natural Resource Sciences

NQB513 Geophysics

**Year 4, Semester 2**

NQB613 Plate Tectonics

NQB615 Geochemistry

**Course structure - Major in Microbiology**

**Year 1, Semester 1**

SCB111 Chemistry 1

SCB112 Cellular Basis of Life

**Year 1, Semester 2 (Life Sciences Pre-Major Strand)**

SCB120 Plant and Animal Physiology

SCB121 Chemistry 2

**Year 2, Semester 1**

SCB110 Science Concepts and Global Systems  
Plus either:

MAB101 Statistical Data Analysis 1  
Or

MAB105 Preparatory Mathematics

**Year 2, Semester 2**

SCB122 Cell and Molecular Biology

SCB123 Physical Science Applications

**Year 3, Semester 1**

LQB381 Biochemistry: Structure and Function

LQB386 Microbial Structure and Function

**Year 3, Semester 2**

LQB483 Molecular Biology Techniques

LQB486 Clinical Microbiology 1

**Year 4, Semester 1**

LQB586 Clinical Microbiology 2

LQB587 Applied Microbiology 1: Water, Air and Soil

**Year 4, Semester 2**

LQB686 Microbial Technology and Immunology

LQB687 Applied Microbiology 2: Food and Quality Assurance

**Course structure - Major in Physics**

**Year 1, Semester 1**

MAB121 Calculus and Differential Equations  
Or

MAB120 Algebra and Calculus  
SCB111 Chemistry 1



Students who have completed only Maths B are required to take MAB120. Students who have completed both Maths B and Maths C should take MAB121.

## Year 1, Semester 2 (Physics Pre-Major Strand)

MAB122	Algebra and Analytic Geometry
PQB250	Mechanics and Electromagnetism

## Year 2, Semester 1

SCB110	Science Concepts and Global Systems
SCB112	Cellular Basis of Life

## Year 2, Semester 2

MAB220	Computational Mathematics 1
	Or
MAB121	Calculus and Differential Equations
PQB251	Waves and Optics

## Year 3, Semester 1

MAB311	Advanced Calculus
PQB350	Thermodynamics of Solids and Gases

## Year 3, Semester 2

PQB450	Energy, Fields and Radiation
PQB451	Electronics and Instrumentation

## Year 4, Semester 1

PQB550	Quantum and Condensed Matter Physics
PQB551	Physical Analytical Techniques

## Year 4, Semester 2

PQB650	Advanced Theoretical Physics
PQB651	Experimental Physics

## Major in the Bachelor of Arts - International and Global Studies

### International and Global Studies

Seven (7) units are required for an International and Global Studies (IGS) Major. These can include units completed in the IGS Major up to 2009 as well as any completed from the following list.

BSB119	Global Business
CLB049	The Global Teacher
CLB104	Colonialism and Independence in Asia-Pacific
CLB105	Australia and the South Pacific
CLB106	Modern China
CLB108	Nations and Nationalism in Modern Europe
CLB109	World Regions
CLB112	South East Asia in Focus
MDB454	Science, Technology and Society
SCB110	Science Concepts and Global Systems
Students may select one language unit as an	

elective in the International Studies Strand. Students may also undertake a Combined Major in Languages/International and Global Studies, comprising: 3 elective units, 4 units in one chosen language. (Indonesian, Japanese, French, Mandarin, German).

## Major in the Bachelor of Arts - Society and Change

### Society and Change

Seven (7) units are required for a Society and Change Major. These can include units completed in the Society and Change Major up to 2009 as well as any completed from the following list.

CLB107	The Classical World
CLB110	Environment and Society
CLB111	Environmental Hazards
JSB171	Justice and Society
KMB003	Sex Drugs Rock 'N' Roll
MDB454	Science, Technology and Society
PUB209	Health, Culture and Society
PYB067	Human Sexuality
SCB110	Science Concepts and Global Systems
SWB102	The Human Condition
SWB104	Interpersonal Communication
SWB212	Community Work
SWB214	Team Practice and Group Processes
SWB222	Advanced Communication for Human Services and Social Work
SWB223	People, Society and Social Work
SWB302	Social Policy Processes

## Major in the Bachelor of Arts - Ethics and Human Rights

### Ethics and Human Rights

Seven (7) units are required for an Ethics and Human Rights Major. These can include units completed in the Ethics and Human Rights Major up to 2009 as well as any completed from the following list.

JSB171	Justice and Society
JSB175	Social Ethics and the Justice System
LWS101	Ethics Law and Health Care
NSB113	Diversity and Health: Introduction to Indigenous and Multicultural Perspectives
PUB486	Ethics and the Law in Health Service Delivery
SWB105	Introduction to Human Rights and Ethics
SWB219	Ethical and Legal Dimensions of Human Services and Social Work

## Major in the Bachelor of Arts - Community Studies

### Community Studies

Seven (7) units are required for a Community Studies Major. These can include units completed in the Community Studies Major up to 2009 as well as any completed from the following list.

	to 2009 as well as any completed from the following list.
EDB040	Indigenous Knowledge: Research Ethics and Protocols
EDB041	Indigenous Australia: Country, Kin and Culture
SWB100	Introduction to Human Services and Social Work
SWB102	The Human Condition
SWB103	Contemporary Social and Community Issues
SWB104	Interpersonal Communication
SWB204	Child and Family Services: Introduction
SWB206	Disability Services: Introduction
SWB207	Services to Young People: Introduction
SWB212	Community Work
SWB214	Team Practice and Group Processes
SWB216	The Human Dimensions of Space
SWB219	Ethical and Legal Dimensions of Human Services and Social Work
SWB220	Practice Theories
SWB221	Social Work Processes and Methods
SWB222	Advanced Communication for Human Services and Social Work
SWB302	Social Policy Processes
SWB304	Child and Family Services: Advanced
SWB305	Community and Youth Corrections
SWB306	Disability Services: Advanced
SWB307	Services to Young People: Advanced
SWB308	Child Protection Intervention Skills

#### **Major in the Bachelor of Arts - Australian Studies**

##### **Australian Studies**

Seven (7) units are required for an Australian Studies Major. These can include units completed in the Australian Studies Major up to 2009 as well as any completed from the following list.

CLB101	Australian Society and Culture
CLB102	Australian Historical Studies
CLB105	Australia and the South Pacific
CLB113	Australian Geographical Studies
EDB038	Indigenous Australian Culture Studies
EDB039	Indigenous Politics and Political Culture
EDB041	Indigenous Australia: Country, Kin and Culture

#### **Discipline Major in the Bachelor of Arts - Geography and Environmental Studies**

##### **Geography and Environmental Studies**

Six (6) units are required for a Geography and Environmental Studies Discipline Major. These can include units completed in the Geography and Environmental Studies Major up to 2009 as well as any completed from the following list.

CLB109	World Regions
CLB110	Environment and Society
CLB111	Environmental Hazards
CLB112	South East Asia in Focus
CLB113	Australian Geographical Studies
CLB114	Geography in the Field
SCB110	Science Concepts and Global Systems
UDB164	Population and Urban Studies
UDB281	Geographic Information Systems
UDB282	Remote Sensing

#### **Discipline Major - History**

##### **History**

Six (6) units are required for a History Discipline Major. These can include units completed in the History Discipline Major up to 2009 as well as any completed from the following list.

CLB101	Australian Society and Culture
CLB102	Australian Historical Studies
CLB103	Interpreting the Past
CLB104	Colonialism and Independence in Asia-Pacific
CLB105	Australia and the South Pacific
CLB106	Modern China
CLB107	The Classical World
CLB108	Nations and Nationalism in Modern Europe

#### **Discipline Major - Languages**

##### **Mandarin**

Six sequenced units are required for a Mandarin Discipline Major. These can include units completed in the Mandarin Discipline Major up to 2009 as well as those from the following list:

AMB030	Mandarin for Chinese
AMB031	Mandarin 1
AMB032	Mandarin 2
AMB033	Mandarin 3
AMB034	Mandarin 4
AMB035	Mandarin 5
AMB036	Mandarin 6
AMB037	Mandarin 7
AMB038	Mandarin 8

##### **Overseas Units - All Languages**

AMB041	International Intensive Program
AMB042	International Summer School or Equivalent
AMB043	In-Country Study - A
AMB044	In-Country Study - B

##### **French**

The following units are taught at UQ. Six sequenced units are required for a French Discipline Major. These can include units completed in the French Discipline Major up to 2009 as well as those from the following list:

FREN101 0 French 1/Introductory French A

FREN102 0 French 2/Introductory French B

FREN201 0 French 3/Intermediate French A \*

OR

FREN311 2 French Language A \*

FREN202 0 French 4/Intermediate French B

OR

FREN311 3 French Language B

FREN311 4 French 5/French Language C

FREN311 5 French 6/French Language D

FREN311 6 French 7/Advanced French Language \*\*

OR

FREN333 0 French for Business

OR

FREN336 0 Le cinema en Francais

FREN312 0 French 8/Advanced Oral French

OR

FREN321 0 Litterature et modernite

OR

FREN331 0 Introduction to French > English Translation

OR

FREN335 0 Litterature Contemporaine

\* FREN2010 is third semester French for students who have done HHB061 and HHB0062 (semester 1 and 2 of beginner French). FREN3112 is first semester French for students who have successfully complete year 12 french in the last three years.

\*\* Students who have already completed HHB066 French 6 at QUT should not enrol in FREN3116

#### German

The following units are taught at UQ. Six sequenced units are required for a German Discipline Major. These can include units completed in the German Discipline Major up to 2009 as well as those from the following list:

GRMN101 German 1/Introductory German Language 1

0

GRMN102 German 2/Introductory German Language 2 0

GRMN201 0 German 3/Continuing German Language 1

GRMN202 0 German 4/Continuing German Language 2

GRMN301 0 German 5/Advanced German Language 1

GRMN302 0 German 6/Advanced German Language 2

GRMN311 0 German 7/Advanced German Language 3

GRMN312 0 German 8/Advanced German Language 4

#### Japanese

The following units are taught at UQ. Six sequenced units are required for a Japanese Discipline Major. These can include units completed in the Japanese Discipline Major up to 2009 as well as those from the following list:

JAPN1011 Japanese 1/Introductory Japanese 1

JAPN2011 Japanese 2/Introductory Japanese 2

JAPN2101 Japanese 3/Intermediate Japanese 1

JAPN3001 Japanese 4/Intermediate Japanese 2

JAPN3101 Japanese 5/Continuing Japanese 3

JAPN3102 Japanese 6/Continuing Japanese 4

JAPN3200 Japanese 7/Multimedia Japanese

OR

JAPN3240 Modern Literary Texts

OR

JAPN3210 Polite Japanese Written & Spoken Styles

JAPN3500 Japanese 8/Language and Society in Japan

#### Indonesian

The following units are taught at UQ. Six sequenced units are required for a Indonesian Discipline Major. These can include units completed in the Indonesian Discipline Major up to 2009 as well as those from the following list:

INDN1000 Indonesian 1/Introductory Indonesian A

INDN1001 Indonesian 2/Introductory Indonesian B

INDN2000 Indonesian 3/Intermediate Indonesian A

INDN2001 Indonesian 4/Intermediate Indonesian B

INDN3000 Indonesian 5/Advanced Indonesian A

INDN3001 Indonesian 6/Advanced Indonesian B

INDN3003 Indonesian 7/Indonesian Through the Media

INDN3005 Indonesian 8/Indonesian Translation B

#### Discipline Major - Social Science

#### SOCIAL SCIENCE

Six (6) units are required for a Social Science Discipline Major which comprises Sociology

units and Political Studies units. These can include units completed in the Social Science Discipline Major up to 2009 as well as any completed from the following list.

#### **Sociology**

CLB403	Gender And Sexuality Issues For Teachers
JSB272	Theories of Crime
JSB372	Youth Justice
JSB378	Drugs and Crime
JSB971	Gender Crime and the Criminal Justice System
KMB003	Sex Drugs Rock 'N' Roll
MDB454	Science, Technology and Society
PYB067	Human Sexuality
PUB209	Health, Culture and Society
SWB216	The Human Dimensions of Space

#### **Political Studies**

EDB039	Indigenous Politics and Political Culture
JSB271	Policy Governance and Justice
KCB302	Political Communication
SWB218	Social Change, Politics, Policy and Activism
SWB302	Social Policy Processes

#### **Potential Careers:**

Academic, Actuary, Administrator, Analytical Chemist, Astrophysicist, Biochemist, Biologist, Biotechnologist, Chemist, Chemist Industrial, Coastal Scientist, Conservation Biologist, Corporate Secretary, Database Manager, Ecologist, Environmental Health Officer, Environmental Scientist, Forensic Scientist, Geologist, Geophysicist, Geoscientist, Government Officer, Health Physicist, Higher Education Worker, Hydrogeologist, Immunologist, Industrial Chemist, Information Officer, Laboratory Technician (Chemistry), Manager, Mapping Scientist/Photogrammetrist, Marine Scientist, Mathematician, Medical Biotechnologist, Medical Physicist, Microbiologist, Molecular Biologist, Natural Resource Scientist, Network Administrator, Network Manager, Physicist, Plant Biotechnologist, Policy Officer, Population Ecologist, Programmer, Project Developer, Project Manager, Public Servant, Quantitative Analyst, Statistician, Virologist.

## 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

### Overview

Choose your career path in this multibillion dollar industry. This degree allows the development of creative skills ranging from the technical to the artistic. You will gain experience in the whole process of game and interactive media development, from identification and evaluation of ideas, creation of design concepts, critique of existing and potential products, analysis of cultural impact and industry trends, through to the development and delivery of a final product.

You will learn about the games and interactive entertainment industries through interacting with industry members, reviewing the development process of games and related products, participating in class discussions and studying industry literature. You will discover visualisation, interaction and communication techniques as applied to games and interactive media. You will be introduced to generic programming concepts and problem-solving strategies, team work, and the ethical and social responsibilities of an interactive media professional.

### 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.

### **Career Outcomes**

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

### **Professional Recognition**

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.

### **Scholarships**

If you wish to enrol in the Bachelor of Information Technology, you may like to consider our Dean's Scholars Program for OP1-2 students. If you are a female high school student, you may also apply for our 'go for IT gURL' merit scholarships.

Find out more about the range of scholarships available.

### **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.

### **Further Information**



For Further Information about this course please contact:

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

Note: Coop Ed students replace INB380 with INS011 and INS012

## Bachelor of Games & Interactive Entertainment Course Structure 2011

### The course consists of four blocks of studies

Block A: Core Studies (7 units including a 24 credit point Project)

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

Block C: Minor (4 units)

Block D: Electives (4 units)

The Cooperative Education Programs are replacements for general IT electives

### Year 1, Semester 1

INB180	Computer Games Studies
INB104	Building IT Systems
INB103	Industry Insights
INB182	Introducing Design

### Year 1, Semester 2

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

### Year 2, Semester 1

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

### Year 2, Semester 2

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

### Year 3, Semester 1

INB379	Game Project Design
	Block B or Block C or Block D Unit
	Block B or Block C or Block D Unit
	Block B or Block C or Block D Unit

### Year 3, Semester 2

INB380	Games Project
	Block B or Block C or Block D Unit
	Block B or Block C or Block D Unit

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

### Animation

Select 8 units from:

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

### Digital Media

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

### Game Design

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

### Software Technologies\*

	* Requirements for this Major is a SA or better in Queensland Maths B (or equivalent)
INB270	Programming
MAB281	Mathematics for Computer Graphics
INB210	Databases
INB250	Computer Architectures and Systems
INB370	Software Development
INB371	Data Structures and Algorithms
INB381	Modelling and Animation Techniques

INB382 Real Time Rendering Techniques

OR

INB383 AI for Games

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

Students select a Minor from the following

### **Animation**

KIB105 Animation and Motion Graphics

KVB105 Drawing for Design

KIB203 Introduction to 3D Computer Graphics

KVB106 Drawing for Animation

KIB225 Character Development, Conceptual Design and Animation Layout

KIB108 Animation History and Practices

### **Advanced Animation#**

KIB325 Real-Time 3D Computer Graphics

KIB320 Advanced Concepts in Computer Animation 1

KIB321 Advanced Concepts in Computer Animation 2

KIB316 Virtual Environments

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

### **Advanced Software Technologies #**

INB365 Systems Programming

INB372 Agile Software Development

INB374 Enterprise Software Architecture

INB382 Real Time Rendering Techniques

OR

INB383 AI for Games

# Only available to students doing the Software Technologies major

### **Digital Media**

KIB101 Visual Communication

OR

KIB103 Introduction to Web Design and Development

Plus all of the following:

KIB102 Visual Interactions

INB385 Multimedia Systems

INB386 Advanced Multimedia Systems

### **Entrepreneurship**

BSB115 Management

MGB223 Entrepreneurship and Innovation

MGB324 Managing Business Growth

Plus one from the following:

BSB126 Marketing

MGB200 Leading Organisations

### **Game Design**

KIB201 Concept Development for Game Design and Interactive Media

KIB202 Enabling Immersion

INB280 Fundamentals of Game Design

INB281 Advanced Game Design

OR

INB272 Interaction Design

### **Legal Issues**

LWB136 Contracts A

LWB145 Legal Foundations A

Two units selected from the following

LWB137 Contracts B

LWB142 Law, Society and Justice

LWB480 Media Law

LWB482 Internet Law

LWB486 Intellectual Property Law

### **Marketing**

BSB126 Marketing

AMB200 Consumer Behaviour

AMB201 Marketing and Audience Research

AMB240 Marketing Planning and Management

### **Mathematics for Games#**

MAB120 Algebra and Calculus

MAB121 Calculus and Differential Equations

MAB122 Algebra and Analytic Geometry

MAB312 Linear Algebra

# Students who have completed Maths C can substitute MAB120 with one of the following units: MAB311, MAB481 or MAB422

### **Mobile and Network Technologies**

INB102 Emerging Technology

INB251 Networks

INB350 Internet Protocols and Services

INB353 Wireless and Mobile Networks

### **Sound Design**

Select 4 units from the following:

KMB107 Sound, Image, Text

KMB119 Music and Sound Production 1

KMB129 Music and Sound Production 2

KMB252 Multi-Platform Sound Design

KKB216 Graphical Development Environments for Media Interaction

### **Physics for Games**

MAB121 Calculus and Differential Equations

PQB250 Mechanics and Electromagnetism

PQB251	Waves and Optics	Block B or Block C or Block D Unit
	Choose 1 from the following	
PQB450	Energy, Fields and Radiation	
PQB460	Astrophysics 1	
PCB593	Digital Image Processing	

## Software Technologies

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

## Bachelor of Games & Interactive Entertainment Part time structure

### The course consists of four blocks of studies

Block A: Core Studies (7 units including a 24 credit point Project completed in Semester 12)

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

Block C: Minor (4 units)

Block D: Electives (4 units)

The Cooperative Education Programs are replacements for general IT electives

### Year 1, Semester 1

INB180	Computer Games Studies
INB182	Introducing Design

### Year 1, Semester 2

INB181	Introduction to Games Production
INB104	Building IT Systems

### Year 2, Semester 1

INB103	Industry Insights
	Block B or Block C or Block D Unit

### Year 2, Semester 2

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

### Year 3, Semester 1

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

### Year 3, Semester 2

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

### Year 4, Semester 1

Block B or Block C or Block D Unit

### Year 4, Semester 2

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

### Year 5, Semester 1

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

### Year 5, Semester 2

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

### Year 6, Semester 1

INB379	Game Project Design
	Block B or Block C or Block D Unit

### Year 6, Semester 2

INB380	Games Project
	Note: Coop Ed students replace INB380 with INS011 and INS012

## Bachelor of Games & Interactive Entertainment Course Structure 2010

### The course consists of four blocks of studies

Block A: Core Studies (8 units including a 36 credit point Project completed over Semesters 5 & 6)

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

Block C: Minor (4 units)

Block D: Electives (4 units)

The Cooperative Education Programs are replacements for general IT electives

### Year 1, Semester 1

INB180	Computer Games Studies
INB104	Building IT Systems
INB103	Industry Insights
INB182	Introducing Design

### Year 1, Semester 2

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

### Year 2, Semester 1

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

## Year 2, Semester 2

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

## Year 3, Semester 1

INB379 Game Project Design  
Block B or Block C or Block D Unit  
Block B or Block C or Block D Unit  
Block B or Block C or Block D Unit

## Year 3, Semester 2

INB380 Games Project  
Block B or Block C or Block D Unit  
Block B or Block C or Block D Unit  
Note: Coop Ed students replace INB380 with INS011 and INS012

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

### Animation

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

### Digital Media

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

### Game Design

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

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

### Software Technologies\*

\* Requirements for this Major is a SA or better in Queensland Maths B (or equivalent)  
INB270 Programming  
MAB281 Mathematics for Computer Graphics  
INB210 Databases  
INB250 Systems Architecture  
INB370 Software Development  
INB371 Data Structures and Algorithms  
INB381 Modelling and Animation Techniques  
INB382 Real Time Rendering Techniques  
OR  
INB383 AI for Games

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

Students select a Minor from the following

### Animation

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

### Advanced Animation#

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

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

### Advanced Software Technologies #

INB365 Systems Programming  
INB372 Agile Software Development  
INB374 Enterprise Software Architecture  
INB382 Real Time Rendering Techniques  
OR  
INB383 AI for Games  
# Only available to students doing the Software Technologies major

# FACULTY OF SCIENCE AND TECHNOLOGY

## Digital Media

KIB101	Visual Communication
KIB102	Visual Interactions
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems

## Entrepreneurship

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

## Game Design

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

## Legal Issues

LWB141	Legal Institutions and Method
LWB136	Contracts A
	Two units selected from the following
LWB137	Contracts B
LWB142	Law, Society and Justice
LWB480	Media Law
LWB482	Internet Law
LWB486	Intellectual Property Law

## Marketing

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#

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

## Mobile and Network Technologies

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

## Sound Design

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

## Software Technologies

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

## Physics for Games

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

## Bachelor of Games & Interactive Entertainment Course structure 2009

### The course consists of four blocks of studies

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

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

Block C: Minor (4 units)

Block D: Electives (4 units)

The Cooperative Education Programs are replacements for general IT electives

### Year 1, Semester 1

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

### Year 1, Semester 2

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

INB379 Game Project Design  
Block B or Block C or Block D Unit  
Block B or Block C or Block D Unit  
Block B or Block C or Block D Unit

## Year 3, Semester 2

INB380 Games Project  
Block B or Block C or Block D Unit  
Block B or Block C or Block D Unit  
Note: Coop Ed students replace INB380 with INS011 and INS012

## Bachelor of Games & Interactive Entertainment Majors Course structure

### 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

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

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

## Digital Media

KIB101 Visual Communication

KIB102 Visual Interactions

INB385 Multimedia Systems

INB386 Advanced Multimedia Systems

## Entrepreneurship

BSB115 Management

MGB223 Entrepreneurship and Innovation

MGB324 Managing Business Growth

Plus one from the following:

BSB126 Marketing

MGB200 Leading Organisations

## Game Design

KIB201 Concept Development for Game Design and Interactive Media

KIB202 Enabling Immersion

INB280 Fundamentals of Game Design

INB281 Advanced Game Design

OR

INB272 Interaction Design

## Legal Issues

LWB141 Legal Institutions and Method

LWB136 Contracts A

Two units selected from the following

LWB137 Contracts B

LWB142 Law, Society and Justice

LWB480 Media Law

LWB482 Internet Law

LWB486 Intellectual Property Law

## Marketing

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

## Mobile and Network Technologies

INB102 Emerging Technology

INB251 Networks

INB350 Internet Protocols and Services

INB353 Wireless and Mobile Networks

## Sound Design

KMB105 Music and Sound Technology

KMB106 Music and Sound for Multimedia

KMB107 Sound, Image, Text

KMB108 Sound Recording and Acoustics

## Software Technologies

INB270 Programming

INB210 Databases

INB250 Systems Architecture

INB371 Data Structures and Algorithms

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

## Physics for Games

MAB111 Mathematical Sciences 1B

PQB250 Mechanics and Electromagnetism

PQB251 Waves and Optics

Choose 1 from the following

PQB450 Energy, Fields and Radiation

PQB460 Astrophysics 1

PCB593 Digital Image Processing

## Bachelor of Games & Interactive Entertainment Course structure 2008

### The course consists of four blocks of studies

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

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

Block C: Minor (4 units)

Block D: Electives (4 units)

Students who choose to complete the Cooperative Education Program replace an IT general elective with ITS010

### Year 1, Semester 1

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

## Year 3, Semester 2

ITB020 Project  
Block B or Block C or Block D Unit  
Block B or Block C or Block D Unit

## 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.

# FACULTY OF SCIENCE AND TECHNOLOGY

## Computational Arts

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

## Digital Media

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

## Entrepreneurship

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

## Game Design

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

## Legal Issues

LWB141	Legal Institutions and Method
LWB136	Contracts A Two units selected from the following
LWB137	Contracts B
LWB142	Law, Society and Justice
LWB480	Media Law
LWB486	Intellectual Property Law

## Marketing

BSB126	Marketing Three units selected from the following
AMB251	Innovation and Market Development
AMB240	Marketing Planning and Management
AMB201	Marketing and Audience Research
AMB341	Strategic Marketing

## Mathematics for Games#

MAB100	Mathematical Sciences 1A
MAB111	Mathematical Sciences 1B
MAB112	Mathematical Sciences 1C

## MAB312 Linear Algebra

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

## Mobile and Network Technologies\*

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

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

## Sound Design

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

## Physics for Games

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

## Software Technologies

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

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

## IT Elective List

### IT Elective Units

INB123	Project Management Practice
INB221	Technology Management
INB311	Enterprise Systems
INB313	Electronic Commerce Site Development
INB374	Enterprise Software Architecture
INB386	Advanced Multimedia Systems
INB320	Business Process Modelling
INB321	Business Process Management
INB322	Information Systems Consulting
INB323	Smart Services
INB330	Information Management
INB331	Management Issues for Information Professionals
INB334	Information Issues and Values
INB335	Information Resources

INB340	Database Design
INB341	Software Development With Oracle
INB342	Enterprise Data Mining and Data Analysis
INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB353	Wireless and Mobile Networks
INB370	Software Development
INB371	Data Structures and Algorithms
INB372	Agile Software Development
INB374	Enterprise Software Architecture
INB204	Special Topic 1
INB205	Special Topic 2
INB300	Professional Practice in IT
INB305	Special Topic 4
INB304	Special Topic 3
INS350	CCNA 1&2 Network Fundamentals and Routing
INS352	CCNP1: Building Scalable Internetworks
INS351	CCNA 3&4 Lan Switching
INS353	CCNP 2: Building Multi Layered Switched Networks
INS354	CCNP3: Building Multi Layered Switched Networks
INS355	CCNP 4: Optimising Converged Networks
INB306	Project 1
INB307	Project 2
INB308	Project 3
INB365	Systems Programming
INB355	Cryptology and Protocols
INB860	Computational Intelligence for Control and Embedded Systems
INB346	Enterprise 2.0
INB345	Mobile Devices
INB347	Web 2.0 Applications
INB334	Information Issues and Values

**Potential Careers:**

Animator, Computer Game Programmer, Computer Games Developer, Computer Systems Engineer, Multimedia Designer, Programmer, Project Developer, Project Manager, Software Engineer, Technical Officer, Web Designer.

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

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 059710E

**Course duration (full-time):** 3 years

**Domestic fees (indicative):** 2011: CSP \$3,878 (indicative) per semester

**International Fees (indicative):** 2011: \$11,375 (indicative) per semester

**Domestic Entry:** February: Fixed closing date - 26th November, 2010

**International Entry:** February: Fixed closing date - 26th November, 2010. This course is only available to international students completing Year 12 in Australia  
**QTAC code:** 418002

**Past rank cut-off:** 97 plus successful questionnaire and interview. Please refer to Additional Entry Requirements.

**Past OP cut-off:** 2 plus successful questionnaire and interview. Please refer to Additional Entry Requirements.

**Assumed knowledge:** English (4, SA) and Maths A, B or C (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Course coordinator:** Richard Thomas

**Campus:** Gardens Point

### **Overview**

The Dean's Scholars Program is an accelerated honours program allowing completion of the Bachelor of Games and Interactive Entertainment and an honours degree in three years instead of four years. This accelerated program is designed for students with an OP 1 or 2 (or equivalent), who can also demonstrate active involvement in their school and local community activities.

The Bachelor of Games and Interactive Entertainment gives you the opportunity to join the growing industry of digital entertainment and electronic games by acquiring expertise in the development of computer games and other forms of interactive media. The course has a strong foundation in both entertainment technology and creative skills. You can choose your primary area of study from Animation and Computational Arts, Digital Media, Game Design or Software Technologies.

You will gain experience in the whole process of game and interaction development, from identification and evaluation of ideas, creation of design concepts, critique of existing and potential products, analysis of cultural impact and industry trends, right through to the development and delivery of a final product.

### **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<sup>^</sup>
- Sound Design

#Requirement for this major is an SA or better in Queensland Maths B (or equivalent).

Only available to those undertaking the animation major.

<sup>^</sup>Only available to those undertaking the software technologies major.

## Career Outcomes

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

## Professional Recognition

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

## Your Course

### Year 1

In your first year you will undertake five core units, consisting of:

- Computer Games Studies
- Building IT Systems
- Industry Insights
- Introducing Design
- Games Production

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

### Year 2

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

### Year 3

In your final year, you will extend your professional and technical skills by participating in a major group project to produce a significant piece of digital work using PC, mobile devices, consoles or virtual reality. You will also undertake a

special topic. You will complete your units for your chosen major, minor and electives.

## Note:

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

## Prerequisites

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

## Financial Support

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

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

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

## OP Guarantee

The OP Guarantee does not apply to this program.

## Deferment

QUT's deferment policy does not apply to this course.

## Cooperative Education Program

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

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

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



Find out more about the Cooperative Education Program.

## Unit Incompatibility/Translation Information

Details on the translation and incompatibility of old and new units is located here:

Undergraduate Translation Table

If you have completed the unit(s) listed under the "Translation Unit Codes" column you are not permitted to enrol in the listed new code

## Fixed Closing Date

Applications for this program will close on 26 November, 2010.

## Additional Entry Requirements

Applicants are required to complete a questionnaire.

## Further Information

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

Michael Docherty

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

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

### The course consists of four blocks of studies

Block A: Core Studies (7 units including a 24 credit point Project)

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

Block C: Minor (4 units)

Block D: Electives (4 units)

### Year 1, Semester 1

INB180	Computer Games Studies
INB104	Building IT Systems
INB103	Industry Insights
INB182	Introducing Design

### Year 1, Semester 2

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

### Year 2, Semester 1

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

Block B or Block C Unit or Block D Unit

Block B or Block C Unit or Block D Unit

### Year 2, Semester 2

Block B or Block C or Block D Unit

Block B or Block C or Block D Unit

Block B or Block C or Block D Unit

Block B or Block C or Block D Unit

INB379 Game Project Design

### Year 3, Semester 1

INB380 Games Project

Block B or Block C or Block D Unit

Block B or Block C or Block D Unit

Postgraduate IT Elective

### Year 3, Semester 2

INN700 Introduction To Research

INN701 Advanced Research Topics

INN401 Honours Dissertation 1

Postgraduate IT Elective

### Year 3, Summer

INN402 Honours Dissertation 2

INN403 Honours Dissertation 3

INN404 Honours Dissertation 4

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

### Animation

Select 8 units from:

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

### Digital Media

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

# FACULTY OF SCIENCE AND TECHNOLOGY

INB385 Multimedia Systems  
KIB314 Tangible Media

## Game Design

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

## Software Technologies\*

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

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

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

Students select a Minor from the following

### Animation

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

### Advanced Animation#

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

### Advanced Software Technologies #

INB365 Systems Programming

INB372 Agile Software Development  
INB374 Enterprise Software Architecture  
INB382 Real Time Rendering Techniques  
OR  
INB383 AI for Games

# Only available to students doing the Software Technologies major

### Digital Media

KIB101 Visual Communication  
OR  
KIB103 Introduction to Web Design and Development  
Plus all of the following:  
KIB102 Visual Interactions  
INB385 Multimedia Systems  
INB386 Advanced Multimedia Systems

### Entrepreneurship

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

### Game Design

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

### Legal Issues

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

### Marketing

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

### Mathematics for Games#

# FACULTY OF SCIENCE AND TECHNOLOGY

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

## Mobile and Network Technologies

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

## Sound Design

Select 4 units from the following:

KMB107	Sound, Image, Text
KMB119	Music and Sound Production 1
KMB129	Music and Sound Production 2
KMB252	Multi-Platform Sound Design
KKB216	Graphical Development Environments for Media Interaction

## Physics for Games

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

## Software Technologies

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

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

### Animation

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

KIB325	Real-Time 3D Computer Graphics
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### Digital Media

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

### Game Design

INB280	Fundamentals of Game Design
INB272	Interaction Design
KIB201	Concept Development for Game Design and Interactive Media
KIB202	Enabling Immersion
INB281	Advanced Game Design
KIB214	Design for Interactive Media
AND	Two units selected from the following:
DAB110	Architectural Design 1
DEB201	Digital Communication
DTB101	Interior Design 1
DNB101	Industrial Design 1

### Software Technologies\*

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

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

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

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#

# FACULTY OF SCIENCE AND TECHNOLOGY

KIB221	Animation: CG Toolkit
KIB320	Advanced Concepts in Computer Animation 1
KIB321	Advanced Concepts in Computer Animation 2
KIB316	Virtual Environments
	#Entry into this minor is limited to IT04 students enrolled in the Animation Major, who have completed at least 96 credit points of study, and have gained an average grade of 5.0 or above across the following units from the Animation Major: KIB105, KIB108, KVB105, KVB106.

## Advanced Software Technologies #

INB365	Systems Programming
INB372	Agile Software Development
INB374	Enterprise Software Architecture
INB382	Real Time Rendering Techniques
OR	
INB383	AI for Games
	# Only available to students doing the Software Technologies major

## Digital Media

KIB101	Visual Communication
KIB102	Visual Interactions
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems

## Entrepreneurship

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

## Game Design

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

## Legal Issues

LWB141	Legal Institutions and Method
LWB136	Contracts A
	Two units selected from the following
LWB137	Contracts B
LWB142	Law, Society and Justice
LWB480	Media Law
LWB482	Internet Law

LWB486	Intellectual Property Law
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## 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#

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

## Mobile and Network Technologies

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

## Sound Design

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

## Software Technologies

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

## Physics for Games

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

## Postgraduate IT Units

### Unit List:

INN210	Databases
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## FACULTY OF SCIENCE AND TECHNOLOGY

INN220	Business Analysis	INN386	Advanced Multimedia Systems
INN221	Technology Management	INN500	PRINCE2 (R) Project Management
INN250	Foundations of Computer Science	INN530	Web Content Reliability
INN251	Networks	INN531	Information Services
INN255	Security	INN532	Information Literacy Education
INN270	Programming	INN533	Information Organisation
INN271	The Web	INN540	User Experience
INN272	Interaction Design	INN546	Major Issues in Health Technology
INN280	Fundamentals of Game Design	INN550	Computer Forensics
INN281	Advanced Game Design	INN570	Internationalisation of Software
INN282	Games Level Design	INN600	Advanced Readings 1
INN311	Enterprise Systems	INN601	Advanced Readings 2
INN312	Enterprise Systems Applications	INN602	Advanced Readings 3
INN313	Electronic Commerce Site Development	INN605	Advanced Research 1
INN320	Business Process Modelling	INN606	Advanced Research 2
INN321	Business Process Management	INN607	Advanced Research 3
INN322	Information Systems Consulting	INN610	Case Studies in Business Process Management
INN323	Smart Services	INN650	Advanced Network Management
INN330	Information Management	INN651	Security Technologies
INN331	Management Issues for Information Professionals	INN652	Advanced Cryptology
INN332	Information Retrieval	Students must first seek permission from the Course Coordinator to enrol in the following:	
INN333	Information Programs		
INN334	Information Issues and Values	INN690	Minor Project 1
INN335	Information Resources	INN691	Minor Project 2
INN340	Database Design	INN692	Minor Project 3
INN341	Software Development With Oracle	INN693	Project
INN342	Enterprise Data Mining and Data Analysis	INN694-1	Project 1
INN343	Advanced Data Mining and Data Warehousing	INN694-2	Project
INN344	Search Engine Technology	INN695	Major Project
INN345	Mobile Devices	INN696-1	Major Project 1
INN346	Enterprise 2.0	INN696-2	Major Project 2
INN347	Web 2.0 Applications		
INN350	Internet Protocols and Services	<b>Potential Careers:</b> Animator, Computer Game Programmer, Computer Games Developer, Multimedia Designer, Programmer, Software Engineer, Web Designer.	
INN351	Unix Network Administration		
INN352	Network Planning		
INN353	Wireless and Mobile Networks		
INN355	Cryptology and Protocols		
INN365	Systems Programming		
INN370	Software Development		
INN371	Data Structures and Algorithms		
INN372	Agile Software Development		
INN373	Web Application Development		
INN374	Enterprise Software Architecture		
INN381	Modelling and Animation Techniques		
INN382	Real Time Rendering Techniques		
INN383	AI for Games		
INN385	Multimedia Systems		



## Bachelor of Corporate Systems Management (IT06)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 059712C

**Course duration (full-time):** 3 years

**Domestic fees (indicative):** 2011: CSP \$3,961 (indicative) per semester

**International Fees (indicative):** 2011: \$11,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 418301

**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:** Dr Taizan Chan

**Campus:** Gardens Point

### Overview

Are you a creative thinker? Are you intrigued by new and evolving applications of information technology (such as cloud computing, 4G smart phones and Google Buzz)? Are you someone who is interested in the growing importance and impact of these applications on individuals, organisations and society, and who seeks to effectively apply them in the business world? If your answer is 'yes', then this is the degree for you.

This is an IT degree for business thinkers. It will give you the edge in understanding the relationships between information, technology, business and people. Today, business success depends on the identification and application of the right information technology solutions at the right cost within the right timeframe. This degree will introduce you to up-to-the minute business and IT knowledge and enable you to harness your creativity and apply your knowledge in the real world. You will learn to analyse business needs and devise IT-enabled business systems and tools that deliver information solutions to the key people via the most appropriate technologies.

### Why Choose This Course

You may have a great idea for new mobile software, a new way to conduct business over the net, or even how a business could out-manoeuvre its competitors using information technology. You know the importance of IT and you are excited about what IT can do and either want to develop the next big thing yourself or be able to evaluate, identify, choose and integrate from myriad technologies to arrive at a creative solution. This degree will equip you with the knowledge and skills to realise these aspirations. Whether as a professional within an organisation, as a consultant, or as an entrepreneur, you will be well equipped to take advantage of the demand for business-savvy IT

professionals who are able to creatively develop or identify IT solutions to help organisations adapt and grow.

### Course Structure

The 24-unit degree comprises:

- 16 core units that build your understanding of the relationships between information, technology, business and people
- eight units in a specialisation of your choice – you could choose to further specialise in information technology, a set of units from a different discipline, or optional units from across QUT to complement your studies.

Specialisation options include:

- adult and community learning
- business systems engineering
- construction management – administration
- creative industries management
- databases
- entrepreneurship
- finance
- forensics
- human resource management
- organisational psychology
- information systems
- information management/information technology management
- international studies
- law
- management
- marketing
- public health

### Career Outcomes

Career destinations from this degree are management, analyst or consultant roles such as business analyst, project manager, process analyst, program manager, or data manager in fields ranging from health to finance to media and entertainment services. If you are interested in creating your own business, you may start your own consultancy service to assist businesses in using information technology and improve their business performance. The career possibilities are numerous and relevant experience is in great demand by industry.

### Professional Recognition

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 semester, you will complete the first four core units:

- Impact of IT
- Industry Insights
- Corporate Systems
- Organisational Databases.

In your second semester, you will complete three more core units:



- Management, People and Organisations
- Project Management Practice
- Information Systems Development.

You will also choose your specialisation and complete your first specialisation unit, or start your electives.

### **Year 2**

In first semester, you will complete three core units:

- Business Analysis
- Technology Management
- Creating New Enterprises.

You will also complete your second specialisation unit or electives.

In second semester, you will complete two core units:

- Marketing
- Web Sites for Electronic Commerce.

You will also complete two more specialisation units or electives.

### **Year 3**

In your first semester, you will complete two core units:

- Enterprise Systems Applications
- Information Systems Consulting.

You will also complete two more specialisation units or electives.

In your second semester, you will complete the last two core units:

- Business Process Modelling
- Corporate Systems Management Project (your final-year showcase project).

You will also complete the last two units of your specialisation or electives.

### **Scholarships**

If you wish to enrol in the Bachelor of Information Technology, you may like to consider our Dean's Scholars Program for OP1-2 students. If you are a female high school student, you may also apply for our 'go for IT gURL' merit scholarships.

Find out more about the range of scholarships available.

### **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 INB300 Professional Practice in IT in the first semester of the program and in INB325 Corporate Systems Management Project in the second semester of the program. The

cooperative education program and its mentoring and assessment requirements make up the required contact and assessment components of both units. Eligibility criteria apply. International students are not eligible due to visa restrictions.

Part-time students who are working in a professional IT position may be able to use their current employment to meet the criteria for completing INB300 Professional Practice in IT, after completion of 168 credit points in the Bachelor of Corporate Systems Management component, subject to meeting eligibility criteria. Further information about this option is available from Student Services, Level 3, O Block Podium, Gardens Point campus or see the unit outline for INB300.

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.

### **Intermediate Level Electives**

If you have not completed ITB008 you will need to replace it with one of the following intermediate level elective units.

- INB120 Corporate Systems
- INB220 Business Analysis
- INB255 Security
- INB272 Interaction Design

Or, an INB300 level unit as approved by the course coordinator

### **Further Information**

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

### **Course Co-ordinator**

Dr Taizan Chan

Phone: +61 73138 2782

Email: enquiry.scitech@qut.edu.au

## Bachelor of Corporate Systems Management 2011

### Course Structure 2011

#### Year 1, Semester 1

INB103	Industry Insights
INB120	Corporate Systems
INB101	Impact of IT
INB122	Organisational Databases

#### Year 1, Semester 2

BSB115	Management
INB123	Project Management Practice
INB124	Information Systems Development Block B Unit

#### Year 2, Semester 1

INB220	Business Analysis
INB221	Technology Management
MGB223	Entrepreneurship and Innovation Block B Unit

#### Year 2, Semester 2

BSB126	Marketing
INB313	Electronic Commerce Site Development Block B Unit Block B Unit

#### Year 3, Semester 1

INB312	Enterprise Systems Applications
INB322	Information Systems Consulting Block B Unit Block B Unit

#### Year 3, Semester 2

INB320	Business Process Modelling
INB325	Corporate Systems Management Project Block B Unit Block B Unit

### Block B: Complimentary Studies

Students select 96cp comprising of IT unit set(s) or from those offered by other Faculties at QUT. Alternatively, students may undertake eight elective units with the approval of the Course Coordinator.

### Banking and Finance

BSB113	Economics
BSB123	Data Analysis
EFB201	Financial Markets
EFB210	Finance 1

EFB222	Quantitative Methods For Economics and Finance
EFB223	Economics 2
EFB307	Finance 2
EFB312	International Finance

### Creative Industries Management

KTB104	Performance Innovation
KTB207	Staging Australia
KTB210	Creative Industries Management
KTB211	Creative Industries Events and Festivals

### Construction Management - Administration

UDB101	Stewardship of Land
UDB104	Urban Development Economics
UDB110	Residential Construction and Engineering
UDB111	Engineering Construction Materials

### Human Resource Management

MGB200	Leading Organisations
MGB201	Contemporary Employment Relations
MGB207	Human Resource Issues and Strategy
MGB314	Organisational Consulting and Change
MGB320	Recruitment and Selection
MGB331	Learning and Development in Organisations
MGB339	Performance and Reward
MGB370	Personal and Professional Development

### Law

LWB136	Contracts A
LWB137	Contracts B
LWB145	Legal Foundations A
LWB146	Legal Foundations B
LWB238	Fundamentals of Criminal Law
LWB241	Trusts
LWB242	Constitutional Law
LWB334	Corporate Law

### Management

BSB111	Business Law and Ethics
BSB113	Economics
BSB119	Global Business
BSB124	Working in Business
MGB200	Leading Organisations
MGB210	Managing Operations
MGB309	Strategic Management
MGB324	Managing Business Growth

### Marketing

AMB200	Consumer Behaviour
AMB201	Marketing and Audience Research

# FACULTY OF SCIENCE AND TECHNOLOGY

AMB240	Marketing Planning and Management
AMB335	E-marketing Strategies
AMB359	Strategic Marketing

## Organisational Psychology

PYB007	Interpersonal Processes and Skills
PYB100	Foundation Psychology
PYB202	Social and Organisational Psychology
PYB302	Industrial and Organisational Psychology

## Public Health

PUB251	Contemporary Public Health
PUB326	Epidemiology
PUB332	Sustainable Environments For Health
PUB406	Health Promotion Practice

## Justice (Criminology)

JSB170	Introduction to Criminology and Policing
JSB171	Justice and Society
JSB272	Theories of Crime
JSB273	Crime Research Methods
JSB372	Youth Justice
JSB373	Punishment and Penal Policy
JSB374	Crime Prevention
LWB145	Legal Foundations A

## Specialisation - IT (Digital Environments)

INB104	Building IT Systems
INB210	Databases
INB270	Programming
INB335	Information Resources
INB340	Database Design
INB345	Mobile Devices
INB346	Enterprise 2.0
INB347	Web 2.0 Applications

## Intermediate Level Electives

INB120	Corporate Systems
INB220	Business Analysis
INB255	Security
INB272	Interaction Design
Or, an INB300 level unit as approved by the course coordinator	

## Bachelor of Corporate Systems Management 2010

### Course Structure 2010

#### Year 1, Semester 1

INB103	Industry Insights
INB120	Corporate Systems
INB101	Impact of IT

INB122	Organisational Databases
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#### Year 1, Semester 2

BSB115	Management
INB123	Project Management Practice
INB124	Information Systems Development
Block B Unit	

#### Year 2, Semester 1

INB220	Business Analysis
INB221	Technology Management
MGB223	Entrepreneurship and Innovation
Block B Unit	

#### Year 2, Semester 2

BSB126	Marketing
INB313	Electronic Commerce Site Development
Block B Unit	
Block B Unit	

#### Year 3, Semester 1

INB312	Enterprise Systems Applications
INB322	Information Systems Consulting
Block B Unit	
Block B Unit	

#### Year 3, Semester 2

INB320	Business Process Modelling
INB325	Corporate Systems Management Project
Block B Unit	
Block B Unit	

## Block B: Complementary Studies

Students select 96cp comprising of IT unit set(s) or from those offered by other Faculties at QUT. Alternatively, students may undertake eight elective units with the approval of the Course Coordinator.

## Information Management/Information Technology Management

INB312	Enterprise Systems Applications
INB335	Information Resources

## Adult and Community Learning

SPB100	Introduction to Adult Learning and Development
SPB106	Managing Learning Organisations

## Banking and Finance

BSB113	Economics
BSB122	Quantitative Analysis and Finance
EFB101	Data Analysis for Business
EFB102	Economics 2

# FACULTY OF SCIENCE AND TECHNOLOGY

EFB201	Financial Markets
EFB210	Finance 1
EFB307	Finance 2
EFB312	International Finance

## Business Systems Engineering

INB210	Databases
INB270	Programming
INB311	Enterprise Systems
	Intermediate Level IT Elective

## Creative Industries Management

KTB210	Creative Industries Management
KTB211	Creative Industries Events and Festivals
KTB104	Performance Innovation
KTB207	Staging Australia

## Construction Management - Administration

UDB101	Stewardship of Land
UDB104	Urban Development Economics
UDB110	Residential Construction and Engineering
UDB111	Engineering Construction Materials

## Databases

INB210	Databases
INB270	Programming
INB340	Database Design
INB342	Enterprise Data Mining
	Intermediate Level IT Elective

## Electronic Business

BSB212	Electronic Business Applications
BSB213	Governance Issues in E-Business
BSB314	E-Business Intelligence
INB210	Databases
INB271	The Web
INB311	Enterprise Systems
INB342	Enterprise Data Mining

## Entrepreneurship

AMB240	Marketing Planning and Management
AMB251	Innovation and Brand Management

## Human Resource Management

MGB207	Human Resource Issues and Strategy
MGB211	Organisational Behaviour
MGB314	Organisational Consulting and Change

## Law

LWB136	Contracts A
LWB137	Contracts B

LWB141	Legal Institutions and Method
LWB142	Law, Society and Justice
LWB144	Laws and Global Perspectives
LWB482	Internet Law
LWB484	Electronic Commerce and Technology Contracts

## Management

MGB210	Managing Operations
MGB211	Organisational Behaviour
MGB220	Business Research Methods
MGB222	Managing Organisations
MGB309	Strategic Management
MGB334	Managing in a Changing Environment

## Marketing

AMB200	Consumer Behaviour
AMB201	Marketing and Audience Research
AMB240	Marketing Planning and Management
AMB241	E-Marketing Strategies
AMB341	Strategic Marketing

## Organisational Psychology

PYB007	Interpersonal Processes and Skills
PYB012	Psychology
PYB202	Social and Organisational Psychology
PYB302	Industrial and Organisational Psychology

## Public Health

PUB251	Contemporary Public Health
PUB326	Epidemiology
PUB332	Sustainable Environments For Health
PUB406	Health Promotion Practice

## Intermediate Level Electives

INB120	Corporate Systems
INB220	Business Analysis
INB255	Security
INB272	Interaction Design
	Or, an INB300 level unit as approved by the course coordinator

## Bachelor of Corporate Systems Management 2009

### Course Structure - 2009

#### Year 1, Semester 1

INB103	Industry Insights
INB120	Corporate Systems
INB101	Impact of IT
INB122	Organisational Databases

# FACULTY OF SCIENCE AND TECHNOLOGY

## Year 1, Semester 2

BSB115	Management
INB123	Project Management Practice
INB124	Information Systems Development Block B Unit

## Year 2, Semester 1

INB220	Business Analysis
INB221	Technology Management
MGB223	Entrepreneurship and Innovation Block B Unit

## Year 2, Semester 2

BSB126	Marketing
INB313	Electronic Commerce Site Development Block B Unit Block B Unit

## Year 3, Semester 1

INB312	Enterprise Systems Applications
INB322	Information Systems Consulting Block B Unit Block B Unit

## Year 3, Semester 2

INB320	Business Process Modelling
INB325	Corporate Systems Management Project Block B Unit Block B Unit

## Block B: Complementary Studies

Students select unit set(s) from within the School of IT or from those offered by other Faculties at QUT. Alternatively, students may undertake eight elective units with the approval of the Course Coordinator.

## Information Management/Information Technology Management

INB312	Enterprise Systems Applications
INB335	Information Resources

## Adult and Community Learning

SPB100	Introduction to Adult Learning and Development
SPB102	Professional Communication in Adult Learning Contexts

## Finance

BSB113	Economics
BSB123	Data Analysis
EFB101	Data Analysis for Business
EFB102	Economics 2
EFB201	Financial Markets

EFB210	Finance 1
EFB307	Finance 2
EFB312	International Finance

## Business Systems Engineering

INB210	Databases
INB270	Programming
INB311	Enterprise Systems Intermediate Level IT Elective

## Creative Industries Management

KTB061	Creative Industries Management
KTB062	Creative Industries Events and Festivals
KTB104	Performance Innovation
KTB207	Staging Australia

## Construction Management - Administration

UDB101	Stewardship of Land
UDB104	Urban Development Economics
UDB110	Residential Construction and Engineering
UDB111	Engineering Construction Materials

## Databases

INB210	Databases
INB270	Programming
INB340	Database Design
INB342	Enterprise Data Mining Intermediate Level IT Elective

## Forensics

BSB212	Electronic Business Applications
BSB213	Governance Issues in E-Business
BSB314	E-Business Intelligence
INB210	Databases
INB271	The Web
INB311	Enterprise Systems
INB342	Enterprise Data Mining

## Entrepreneurship

AMB240	Marketing Planning and Management
AMB251	Innovation and Brand Management

## Human Resource Management

MGB207	Human Resource Issues and Strategy
MGB211	Organisational Behaviour
MGB314	Organisational Consulting and Change

## International Studies

HHB107	World Regions
HHB223	Islam and Islamic Societies
HHB263	Politics Of Globalisation



**Law**

LWB136	Contracts A
LWB137	Contracts B
LWB141	Legal Institutions and Method
LWB142	Law, Society and Justice
LWB144	Laws and Global Perspectives
LWB482	Internet Law
LWB484	Electronic Commerce and Technology Contracts

**Management**

MGB210	Managing Operations
MGB211	Organisational Behaviour
MGB220	Business Research Methods
MGB222	Managing Organisations
MGB309	Strategic Management
MGB334	Managing in a Changing Environment

**Marketing**

AMB200	Consumer Behaviour
AMB201	Marketing and Audience Research
AMB240	Marketing Planning and Management
AMB241	E-Marketing Strategies
AMB341	Strategic Marketing

**Organisational Psychology**

PYB007	Interpersonal Processes and Skills
PYB012	Psychology
PYB205	Social Psychology
PYB302	Industrial and Organisational Psychology

**Public Health**

PUB251	Contemporary Public Health
PUB326	Epidemiology
PUB329	Foundations of Health Studies and Health Behaviour
PUB406	Health Promotion Strategies

**Intermediate Level Electives**

INB120	Corporate Systems
INB220	Business Analysis
INB255	Security
INB272	Interaction Design
	Or, an INB300 level unit as approved by the course coordinator

**Bachelor of Corporate Systems Management 2008**

**Course Outline - 2008**

**Block A: Core Units (16 Units)**

**Block B: Complementary Studies (8 units)**

**Year 1, Semester 1**

ITB002	IT Professional Studies
ITB360	Corporate Systems
ITB361	Socio-technical Systems
ITB362	Organisational Databases

**Year 1, Semester 2**

BSB115	Management, People and Organisations
ITB363	Project Management Practice
ITB364	Information Systems Development
	Block B Unit

**Year 2, Semester 1**

ITB365	Business Analysis
ITB366	Information Systems Operations
MGB223	Entrepreneurship and Innovation
	Block B Unit

**Year 2, Semester 2**

BSB126	Marketing
ITB823	Web Sites For Electronic Commerce
	Block B Unit
	Block B Unit

**Year 3, Semester 1**

ITB233	Enterprise Systems Applications
ITB264	Information Systems Consulting
	Block B Unit
	Block B Unit

**Year 3, Semester 2**

ITB298	Business Process Modelling
ITB370	Project
	Block B Unit
	Block B Unit

**Block B: Complementary Studies**

Students select a 4, 6 or 8 unit set/s from within the Faculty of IT or from those offered by other Faculties at QUT. Alternatively, students may undertake eight elective units with the approval of the Course Coordinator.

Students who choose to complete the Cooperative Education Program replace a Block B unit with ITS010

**Banking and Finance (Faculty of Business)**

BSB113	Economics
BSB122	Quantitative Analysis and Finance
EFB101	Data Analysis for Business
EFB102	Economics 2
EFB201	Financial Markets

## FACULTY OF SCIENCE AND TECHNOLOGY

EFB210	Finance 1
EFB307	Finance 2
EFB312	International Finance

### Business Needs Analysis (Faculty of IT)

ITB002	IT Professional Studies
ITB322	Information Resources
ITB361	Socio-technical Systems
ITB365	Business Analysis
	For additional units see below
ITB264	Information Systems Consulting
ITB298	Business Process Modelling
ITB363	Project Management Practice

### Business Systems Engineering (Faculty of IT)

ITB003	Object Oriented Programming
ITB004	Database Systems
ITB008	Modelling Analysis and Design
ITB228	Enterprise Systems

### Creative Industries Management (Creative Industries Faculty)

KTB207	Staging Australia
KTB061	Creative Industries Management
KTB062	Creative Industries Events and Festivals
KTB104	Performance Innovation

### Construction Management - Administration (Faculty of Built Environment and Engineering)

UDB101	Stewardship of Land
UDB104	Urban Development Economics
UDB110	Residential Construction and Engineering
UDB111	Engineering Construction Materials

### Databases

ITB003	Object Oriented Programming
ITB004	Database Systems
ITB008	Modelling Analysis and Design
ITB229	Database Design
ITB239	Enterprise Data Mining

### Electronic Business (Faculty of IT/Faculty of Business)

ITB004	Database Systems
ITB233	Enterprise Systems Applications
ITB239	Enterprise Data Mining
ITB823	Web Sites For Electronic Commerce
BSB212	Electronic Business Applications
BSB314	E-Business Intelligence
BSB213	Governance Issues in E-Business

### Entrepreneurship (Faculty of Business)

MGB223	Entrepreneurship and Innovation
MGB218	Managing Business Growth
AMB240	Marketing Planning and Management
AMB251	Innovation and Market Development

### Games Development (Faculty of IT)

ITB002	IT Professional Studies
ITB016	Fundamentals of Games Design
ITB750	Computer Game Studies
ITB751	Games Production
	For additional units see below
ITB001	Problem Solving and Programming
ITB017	Advanced Games Design

### Games Technology (Faculty of IT)

ITB001	Problem Solving and Programming
ITB003	Object Oriented Programming
ITB008	Modelling Analysis and Design
ITB702	Algorithms and Data Structures
ITB712	Software Engineering Studies
ITB746	Modelling and Animation Techniques
ITB749	Scientific Programming
MAB281	Mathematics for Computer Graphics

### Human Resource Management (Faculty of Business)

MGB207	Human Resource Issues and Strategy
MGB211	Organisational Behaviour
MGB314	Organisational Consulting and Change
MGB331	Learning and Development in Organisations

### Information Systems (Faculty of IT)

ITB002	IT Professional Studies
ITB004	Database Systems
ITB228	Enterprise Systems
ITB229	Database Design
	For additional units see below
ITB233	Enterprise Systems Applications
ITB264	Information Systems Consulting
ITB322	Information Resources

### Information Technology Management (Faculty of IT)

ITB002	IT Professional Studies
ITB264	Information Systems Consulting
ITB361	Socio-technical Systems
ITB363	Project Management Practice
ITB364	Information Systems Development
ITB366	Information Systems Operations

### International Studies (QUT Carseldine)

HHB110	Introduction To International And Global Studies
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# FACULTY OF SCIENCE AND TECHNOLOGY

HHB111	Issues In International And Global Studies
HHB107	World Regions
HHB223	Islam and Islamic Societies
HHB263	Politics Of Globalisation

## Information Technology Project Management (Faculty of IT)

ITB002	IT Professional Studies
ITB009	Core Project Management
ITB264	Information Systems Consulting
ITB363	Project Management Practice
	For additional units see below
ITB010	Core Project Implementation
ITB230	Project
ITB370	Project

## Law (Faculty of Law)

LWB141	Legal Institutions and Method
LWB142	Law, Society and Justice
LWB144	Laws and Global Perspectives
LWB136	Contracts A
LWB137	Contracts B
LWB482	Internet Law
LWB484	Electronic Commerce and Technology Contracts

## Management (Faculty of Business)

MGB210	Managing Operations
MGB211	Organisational Behaviour
MGB220	Management Research Methods
MGB222	Managing Organisations
MGB309	Strategic Management
MGB334	Managing in a Changing Environment

## Marketing (Faculty of Business)

AMB200	Consumer Behaviour
AMB201	Marketing and Audience Research
AMB240	Marketing Planning and Management
AMB241	E-Marketing Strategies
AMB341	Strategic Marketing

## Public Health (Faculty of Health)

PUB251	Contemporary Public Health
PUB326	Epidemiology
PUB329	Foundations of Health Studies and Health Behaviour
PUB406	Health Promotion Strategies

## Justice Studies (Faculty of Law)

JSB272	Theories of Crime
JSB273	Crime Research Methods

JSB372	Youth Justice
JSB373	Crime and Punishment
JSB378	Drugs and Crime

## Bachelor of Corporate Systems Management Part Time 2011

### Part-time Course Structure 2011

#### Year 1, Semester 1

INB120	Corporate Systems
INB122	Organisational Databases

#### Year 1, Semester 2

INB103	Industry Insights
INB101	Impact of IT

#### Year 2, Semester 1

BSB115	Management Block B Unit
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#### Year 2, Semester 2

INB123	Project Management Practice
INB124	Information Systems Development

#### Year 3, Semester 1

INB220	Business Analysis
INB221	Technology Management

#### Year 3, Semester 2

MGB223	Entrepreneurship and Innovation Block B Unit
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#### Year 4, Semester 1

BSB126	Marketing Block B Unit
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#### Year 4, Semester 2

INB313	Electronic Commerce Site Development Block B Unit
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#### Year 5, Semester 1

INB312	Enterprise Systems Applications
INB322	Information Systems Consulting

#### Year 5, Semester 2

Block B Unit  
Block B Unit

#### Year 6, Semester 1

INB325	Corporate Systems Management Project Block B Unit
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#### Year 6, Semester 2

# FACULTY OF SCIENCE AND TECHNOLOGY

INB320 Business Process Modelling  
Block B Unit

## Block B: Complementary Studies

Students select 96cp comprising of IT unit set(s) or from those offered by other Faculties at QUT. Alternatively, students may undertake eight elective units with the approval of the Course Coordinator.

## Banking and Finance

BSB113 Economics  
BSB123 Data Analysis  
EFB201 Financial Markets  
EFB210 Finance 1  
EFB222 Quantitative Methods For Economics and Finance  
EFB223 Economics 2  
EFB307 Finance 2  
EFB312 International Finance

## Creative Industries Management

KTB104 Performance Innovation  
KTB207 Staging Australia  
KTB210 Creative Industries Management  
KTB211 Creative Industries Events and Festivals

## Construction Management - Administration

UDB101 Stewardship of Land  
UDB104 Urban Development Economics  
UDB110 Residential Construction and Engineering  
UDB111 Engineering Construction Materials

## Human Resource Management

MGB200 Leading Organisations  
MGB201 Contemporary Employment Relations  
MGB207 Human Resource Issues and Strategy  
MGB314 Organisational Consulting and Change  
MGB320 Recruitment and Selection  
MGB331 Learning and Development in Organisations  
MGB339 Performance and Reward  
MGB370 Personal and Professional Development

## Law

LWB136 Contracts A  
LWB137 Contracts B  
LWB145 Legal Foundations A  
LWB146 Legal Foundations B  
LWB238 Fundamentals of Criminal Law  
LWB241 Trusts  
LWB242 Constitutional Law  
LWB334 Corporate Law

## Management

BSB111 Business Law and Ethics  
BSB113 Economics  
BSB119 Global Business  
BSB124 Working in Business  
MGB200 Leading Organisations  
MGB210 Managing Operations  
MGB309 Strategic Management  
MGB324 Managing Business Growth

## Marketing

AMB200 Consumer Behaviour  
AMB201 Marketing and Audience Research  
AMB240 Marketing Planning and Management  
AMB335 E-marketing Strategies  
AMB359 Strategic Marketing

## Organisational Psychology

PYB007 Interpersonal Processes and Skills  
PYB012 Psychology  
PYB202 Social and Organisational Psychology  
PYB302 Industrial and Organisational Psychology

## Public Health

PUB251 Contemporary Public Health  
PUB326 Epidemiology  
PUB332 Sustainable Environments For Health  
PUB406 Health Promotion Practice

## Justice (Criminology)

JSB170 Introduction to Criminology and Policing  
JSB171 Justice and Society  
JSB272 Theories of Crime  
JSB273 Crime Research Methods  
JSB372 Youth Justice  
JSB373 Punishment and Penal Policy  
JSB374 Crime Prevention  
LWB145 Legal Foundations A

## Specialisation - IT (Digital Environments)

INB104 Building IT Systems  
INB210 Databases  
INB270 Programming  
INB335 Information Resources  
INB340 Database Design  
INB345 Mobile Devices  
INB346 Enterprise 2.0  
INB347 Web 2.0 Applications

## Intermediate Level Electives

# FACULTY OF SCIENCE AND TECHNOLOGY

INB120	Corporate Systems
INB220	Business Analysis
INB255	Security
INB272	Interaction Design
Or, an INB300 level unit as approved by the course coordinator	

## Bachelor of Corporate Systems Management Part Time

### Part-time Course Structure 2010

#### Year 1, Semester 1

INB120	Corporate Systems
INB122	Organisational Databases

#### Year 1, Semester 2

INB103	Industry Insights
INB101	Impact of IT

#### Year 2, Semester 1

BSB115	Management
	Block B Unit

#### Year 2, Semester 2

INB123	Project Management Practice
INB124	Information Systems Development

#### Year 3, Semester 1

INB220	Business Analysis
INB221	Technology Management

#### Year 3, Semester 2

MGB223	Entrepreneurship and Innovation
	Block B Unit

#### Year 4, Semester 1

BSB126	Marketing
	Block B Unit

#### Year 4, Semester 2

INB313	Electronic Commerce Site Development
	Block B Unit

#### Year 5, Semester 1

INB312	Enterprise Systems Applications
INB322	Information Systems Consulting

#### Year 5, Semester 2

Block B Unit  
Block B Unit

#### Year 6, Semester 1

INB325	Corporate Systems Management Project
	Block B Unit

#### Year 6, Semester 2

INB320	Business Process Modelling
	Block B Unit

#### Block B: Complementary Studies

Students select 96cp comprising of IT unit set(s) or from those offered by other Faculties at QUT. Alternatively, students may undertake eight elective units with the approval of the Course Coordinator.

#### Information Management/Information Technology Management

INB312	Enterprise Systems Applications
INB335	Information Resources

#### Adult and Community Learning

SPB100	Introduction to Adult Learning and Development
SPB102	Professional Communication in Adult Learning Contexts

#### Banking and Finance

BSB113	Economics
BSB122	Quantitative Analysis and Finance
EFB101	Data Analysis for Business
EFB102	Economics 2
EFB201	Financial Markets
EFB210	Finance 1
EFB307	Finance 2
EFB312	International Finance

#### Business Systems Engineering

INB210	Databases
INB270	Programming
INB311	Enterprise Systems
	Intermediate Level IT Elective

#### Creative Industries Management

KTB061	Creative Industries Management
KTB062	Creative Industries Events and Festivals
KTB104	Performance Innovation
KTB207	Staging Australia

#### Construction Management - Administration

UDB101	Stewardship of Land
UDB104	Urban Development Economics
UDB110	Residential Construction and Engineering
UDB111	Engineering Construction Materials

#### Databases

INB210	Databases
INB270	Programming
INB340	Database Design



# FACULTY OF SCIENCE AND TECHNOLOGY

INB342 Enterprise Data Mining and Data Analysis  
Intermediate Level IT Elective

## Electronic Business

BSB212 Electronic Business Applications  
BSB213 Governance Issues in E-Business  
BSB314 E-Business Intelligence  
INB210 Databases  
INB271 The Web  
INB311 Enterprise Systems  
INB342 Enterprise Data Mining and Data Analysis

## Entrepreneurship

AMB240 Marketing Planning and Management  
AMB251 Innovation and Brand Management

## Human Resource Management

MGB207 Human Resource Issues and Strategy  
MGB211 Organisational Behaviour  
MGB314 Organisational Consulting and Change

## International Studies

HHB107 World Regions  
HHB223 Islam and Islamic Societies  
HHB263 Politics Of Globalisation

## Law

LWB136 Contracts A  
LWB137 Contracts B  
LWB141 Legal Institutions and Method  
LWB142 Law, Society and Justice  
LWB144 Laws and Global Perspectives  
LWB482 Internet Law  
LWB484 Electronic Commerce and Technology Contracts

## Management

MGB210 Managing Operations  
MGB211 Organisational Behaviour  
MGB220 Business Research Methods  
MGB222 Managing Organisations  
MGB309 Strategic Management  
MGB334 Managing in a Changing Environment

## Marketing

AMB200 Consumer Behaviour  
AMB201 Marketing and Audience Research  
AMB240 Marketing Planning and Management  
AMB241 E-Marketing Strategies  
AMB341 Strategic Marketing

## Organisational Psychology

PYB007 Interpersonal Processes and Skills  
PYB012 Psychology  
PYB205 Social Psychology  
PYB302 Industrial and Organisational Psychology

## Public Health

PUB251 Contemporary Public Health  
PUB326 Epidemiology  
PUB329 Foundations of Health Studies and Health Behaviour  
PUB406 Health Promotion Practice

## Intermediate Level Electives

INB120 Corporate Systems  
INB220 Business Analysis  
INB255 Security  
INB272 Interaction Design  
Or, an INB300 level unit as approved by the course coordinator

## IT Elective List

### IT Elective Units

INB123 Project Management Practice  
INB221 Technology Management  
INB311 Enterprise Systems  
INB313 Electronic Commerce Site Development  
INB374 Enterprise Software Architecture  
INB386 Advanced Multimedia Systems  
INB320 Business Process Modelling  
INB321 Business Process Management  
INB322 Information Systems Consulting  
INB323 Smart Services  
INB330 Information Management  
INB331 Management Issues for Information Professionals  
INB334 Information Issues and Values  
INB335 Information Resources  
INB340 Database Design  
INB341 Software Development With Oracle  
INB342 Enterprise Data Mining and Data Analysis  
INB350 Internet Protocols and Services  
INB351 Unix Network Administration  
INB352 Network Planning  
INB353 Wireless and Mobile Networks  
INB370 Software Development  
INB371 Data Structures and Algorithms  
INB372 Agile Software Development  
INB374 Enterprise Software Architecture  
INB204 Special Topic 1

INB205	Special Topic 2
INB300	Professional Practice in IT
INB305	Special Topic 4
INB304	Special Topic 3
INS350	CCNA 1&2 Network Fundamentals and Routing
INS352	CCNP1: Building Scalable Internetworks
INS351	CCNA 3&4 Lan Switching
INS353	CCNP 2: Building Multi Layered Switched Networks
INS354	CCNP3: Building Multi Layered Switched Networks
INS355	CCNP 4: Optimising Converged Networks
INB306	Project 1
INB307	Project 2
INB308	Project 3
INB365	Systems Programming
INB355	Cryptology and Protocols
INB860	Computational Intelligence for Control and Embedded Systems
INB346	Enterprise 2.0
INB345	Mobile Devices
INB347	Web 2.0 Applications
INB334	Information Issues and Values

**Potential Careers:**

Business Analyst, Database Manager, Electronic Commerce Developer, Information Officer, Internet Professional, Manager, Programmer, Project Developer, Project Manager, Software Engineer, Systems Analyst, Systems Manager, Systems Programmer, Systems Trainer, Technical Officer, Technology Transfer Officer.

## Bachelor of Corporate Systems Management - Dean's Scholars Program (IT06)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 059712C

**Course duration (full-time):** 3 years

**Domestic fees (indicative):** 2011: CSP \$3,961 (indicative) per semester

**International Fees (indicative):** 2011: \$11,250 (indicative) per semester

**Domestic Entry:** February: Fixed closing date - 26th November, 2010

**International Entry:** February: Fixed closing date - 26th November, 2010. This course is only available to international students completing Year 12 in Australia  
**QTAC code:** 418002

**Past rank cut-off:** 97 plus successful questionnaire and interview. Please refer to Additional Entry Requirements.

**Past OP cut-off:** 2 plus successful questionnaire. Please refer to Additional Entry Requirements.

**Assumed knowledge:** English (4, SA) and Maths A, B or C (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Course coordinator:** Dr Taizan Chan

**Campus:** Gardens Point

### Overview

Are you a creative thinker? Are you intrigued by new and evolving applications of information technology (such as cloud computing, 4G smart phones and Google Buzz)? Are you someone who is interested in the growing importance and impact of these applications on individuals, organisations and society, and who seeks to effectively apply them in the business world? If your answer is 'yes', then this is the degree for you.

This is an IT degree for business thinkers. It will give you the edge in understanding the relationships between information, technology, business and people. Today, business success depends on the identification and application of the right information technology solutions at the right cost within the right timeframe. This degree will introduce you to up-to-the-minute business and IT knowledge and enable you to harness your creativity and apply your knowledge in the real world. You will learn to analyse business needs and devise IT-enabled business systems and tools that deliver information solutions to the key people via the most appropriate technologies.

### Why Choose This Course

You may have a great idea for new mobile software, a new way to conduct business over the net, or even how a business could out-manoeuvre its competitors using information technology. You know the importance of IT and you are excited about what IT can do and either want to develop the next big thing yourself or be able to evaluate, identify, choose and integrate from myriad technologies to arrive at a creative solution. This degree will equip you with

the knowledge and skills to realise these aspirations. Whether as a professional within an organisation, as a consultant, or as an entrepreneur, you will be well equipped to take advantage of the demand for business-savvy IT professionals who are able to creatively develop or identify IT solutions to help organisations adapt and grow.

### Course Structure

The 24-unit degree comprises:

- 16 core units that build your understanding of the relationships between information, technology, business and people
- eight units in a specialisation of your choice – you could choose to further specialise in information technology, a set of units from a different discipline, or optional units from across QUT to complement your studies.

Specialisation options include:

- adult and community learning
- business systems engineering
- construction management – administration
- creative industries management
- databases
- entrepreneurship
- finance
- forensics
- human resource management
- organisational psychology
- information systems
- information management/information technology management
- international studies
- law
- management
- marketing
- public health

### Career Outcomes

Career destinations from this degree are management, analyst or consultant roles such as business analyst, project manager, process analyst, program manager, or data manager in fields ranging from health to finance to media and entertainment services. If you are interested in creating your own business, you may start your own consultancy service to assist businesses in using information technology and improve their business performance. The career possibilities are numerous and relevant experience is in great demand by industry.

### Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

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

### Your Course

#### Year 1

In your first semester, you will complete the first four core

units:

- Impact of IT
- Industry Insights
- Corporate Systems
- Organisational Databases.

In your second semester, you will complete three more core units:

- Management, People and Organisations
- Project Management Practice
- Information Systems Development.

You will also choose your specialisation and complete your first specialisation unit, or start your electives.

### **Year 2**

In first semester, you will complete three core units:

- Business Analysis
- Technology Management
- Creating New Enterprises.

You will also complete your second specialisation unit or electives.

In second semester, you will complete two core units:

- Marketing
- Web Sites for Electronic Commerce.

You will also complete two more specialisation units or electives.

### **Year 3**

In your first semester, you will complete two core units:

- Enterprise Systems Applications
- Information Systems Consulting.

You will also complete two more specialisation units or electives.

In your second semester, you will complete the last two core units:

- Business Process Modelling
- Corporate Systems Management Project (your final-year showcase project).

You will also complete the last two units of your specialisation or electives.

### **Note:**

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

### **Who should apply?**

The program is open to applicants currently undertaking Year 12 studies at a secondary school, and who achieve an OP 1 or 2 (or interstate equivalent). Applicants must be outstanding current, or returning from a gap year, Year 12 students who completed their Year 12 education in Australia.

### **Financial Support**

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

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

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

### **OP Guarantee**

The OP Guarantee does not apply to this program.

### **Deferment**

QUT's deferment policy does not apply to this course.

### **Cooperative Education Program**

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

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

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

Find out more about the Cooperative Education Program.

### **Unit Incompatibility/Translation Information**

Details on the translation and incompatibility of old and new units is located here:

Undergraduate Translation Table

If you have completed the unit(s) listed under the "Translation Unit Codes" column you are not permitted to enrol in the listed new code.

### **Intermediate Level Electives**

If you have not completed ITB008 you will need to replace it with one of the following intermediate level elective units.

- INB120 Corporate Systems

- INB220 Business Analysis
  - INB255 Security
  - INB272 Interaction Design
- Or, an INB300 level unit as approved by the course coordinator

Block B Unit  
Block B Unit  
Postgraduate IT Elective

## Fixed Closing Date

Applications for this program will close on 30 November.

## Further Information

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

Taizan Chan  
Phone: +61 7 3138 2782  
Email: enquiry.scitech@qut.edu.au

## Additional Entry Requirements

Applicants are required to complete a questionnaire.

## Bachelor of Corporate Systems Management

### Year 1, Semester 1

INB103	Industry Insights
INB120	Corporate Systems
INB101	Impact of IT
INB122	Organisational Databases

### Year 1, Semester 2

BSB115	Management
INB123	Project Management Practice
INB124	Information Systems Development
	Block B Unit
	Block B Unit

### Year 2, Semester 1

INB220	Business Analysis
INB221	Technology Management
MGB223	Entrepreneurship and Innovation
	Block B Unit
	Block B Unit

### Year 2, Semester 2

INB313	Electronic Commerce Site Development
BSB126	Marketing
INB320	Business Process Modelling
	Block B Unit

### Year 2, Summer

INB325	Corporate Systems Management Project
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### Year 3, Semester 1

INB312	Enterprise Systems Applications
INB322	Information Systems Consulting

### Year 3, Semester 2

INN401	Honours Dissertation 1
INN700	Introduction To Research
INN701	Advanced Research Topics
	Postgraduate IT Elective

### Year 3, Summer

INN402	Honours Dissertation 2
INN403	Honours Dissertation 3
INN404	Honours Dissertation 4

### Block B: Complimentary Studies

Students select 84cp comprising of IT unit set(s) or from those offered by other Faculties at QUT. Alternatively, students may undertake eight elective units with the approval of the Course Coordinator.

### Banking and Finance

BSB113	Economics
BSB123	Data Analysis
EFB201	Financial Markets
EFB210	Finance 1
EFB222	Quantitative Methods For Economics and Finance
EFB223	Economics 2
EFB307	Finance 2
EFB312	International Finance

### Creative Industries Management

KTB210	Creative Industries Management
KTB211	Creative Industries Events and Festivals
KTB104	Performance Innovation
KTB207	Staging Australia

### Construction Management - Administration

UDB101	Stewardship of Land
UDB104	Urban Development Economics
UDB110	Residential Construction and Engineering
UDB111	Engineering Construction Materials

### Human Resource Management

MGB207	Human Resource Issues and Strategy
MGB200	Leading Organisations
MGB314	Organisational Consulting and Change
MGB201	Contemporary Employment Relations
MGB320	Recruitment and Selection
MGB331	Learning and Development in Organisations
MGB339	Performance and Reward



# FACULTY OF SCIENCE AND TECHNOLOGY

## MGB370 Personal and Professional Development

### Law

LWB136	Contracts A
LWB137	Contracts B
LWB145	Legal Foundations A
LWB146	Legal Foundations B
LWB238	Fundamentals of Criminal Law
LWB241	Trusts
LWB242	Constitutional Law
LWB334	Corporate Law

### Management

BSB111	Business Law and Ethics
BSB113	Economics
BSB119	Global Business
BSB124	Working in Business
MGB200	Leading Organisations
MGB210	Managing Operations
MGB309	Strategic Management
MGB324	Managing Business Growth

### Marketing

AMB200	Consumer Behaviour
AMB201	Marketing and Audience Research
AMB240	Marketing Planning and Management
AMB335	E-marketing Strategies
AMB359	Strategic Marketing

### Organisational Psychology

PYB007	Interpersonal Processes and Skills
PYB100	Foundation Psychology
PYB202	Social and Organisational Psychology
PYB302	Industrial and Organisational Psychology

### Public Health

PUB251	Contemporary Public Health
PUB326	Epidemiology
PUB332	Sustainable Environments For Health
PUB406	Health Promotion Practice

### Justice (Criminology)

JSB170	Introduction to Criminology and Policing
JSB171	Justice and Society
JSB272	Theories of Crime
JSB273	Crime Research Methods
JSB373	Punishment and Penal Policy
JSB372	Youth Justice
JSB374	Crime Prevention
LWB145	Legal Foundations A

## Specialisation - IT (Digital Environments)

INB104	Building IT Systems
INB210	Databases
INB270	Programming
INB340	Database Design
INB345	Mobile Devices
INB346	Enterprise 2.0
INB347	Web 2.0 Applications
INB335	Information Resources

## Intermediate Level Electives

INB120	Corporate Systems
INB220	Business Analysis
INB255	Security
INB272	Interaction Design
	Or, an INB300 level unit as approved by the course coordinator

## Postgraduate IT Units

### Unit List:

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

## FACULTY OF SCIENCE AND TECHNOLOGY

INN342	Enterprise Data Mining and Data Analysis	INN693	Project
INN343	Advanced Data Mining and Data Warehousing	INN694-1	Project 1
INN344	Search Engine Technology	INN694-2	Project
INN345	Mobile Devices	INN695	Major Project
INN346	Enterprise 2.0	INN696-1	Major Project 1
INN347	Web 2.0 Applications	INN696-2	Major Project 2
INN350	Internet Protocols and Services		
INN351	Unix Network Administration		
INN352	Network Planning		
INN353	Wireless and Mobile Networks		
INN355	Cryptology and Protocols		
INN365	Systems Programming		
INN370	Software Development		
INN371	Data Structures and Algorithms		
INN372	Agile Software Development		
INN373	Web Application Development		
INN374	Enterprise Software Architecture		
INN381	Modelling and Animation Techniques		
INN382	Real Time Rendering Techniques		
INN383	AI for Games		
INN385	Multimedia Systems		
INN386	Advanced Multimedia Systems		
INN500	PRINCE2 (R) Project Management		
INN530	Web Content Reliability		
INN531	Information Services		
INN532	Information Literacy Education		
INN533	Information Organisation		
INN540	User Experience		
INN546	Major Issues in Health Technology		
INN550	Computer Forensics		
INN570	Internationalisation of Software		
INN600	Advanced Readings 1		
INN601	Advanced Readings 2		
INN602	Advanced Readings 3		
INN605	Advanced Research 1		
INN606	Advanced Research 2		
INN607	Advanced Research 3		
INN610	Case Studies in Business Process Management		
INN650	Advanced Network Management		
INN651	Security Technologies		
INN652	Advanced Cryptology		

### Potential Careers:

Business Analyst, Computer Systems Engineer, Database Manager, Information Officer, Internet Professional, Manager, Network Administrator, Network Manager, Project Manager, Systems Analyst, Systems Manager, Systems Programmer, Systems Trainer, Web Designer.

Students must first seek permission from the Course Coordinator to enrol in the following:

INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3

## Bachelor of Corporate Systems Management/Bachelor of Information Technology (IT07)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 063028M

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,978 (indicative) per semester

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 418932

**Past rank cut-off:** 74

**Past OP cut-off:** 13

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), 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:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Mike Roggenkamp (Information Technology Major), Dr Taizan Chan (Corporate Systems Management Major)

**Campus:** Gardens Point

### Course Overview

This double degree allows you to combine the strong theoretical and practical grounding of the information technology degree with the skills to integrate this knowledge in the business world through the corporate systems management degree. You will learn about, and come to understand, the interrelationships of information, technology, business and client relations. This course is designed to ensure you are industry ready and future proof as a graduate.

### Career Outcomes

The professional skills gained from this double degree are applicable across all business domains. As a graduate, you can expect to work in roles such as a business analyst or consultant, information and communication technologies project manager or information technology infrastructure manager, information analyst, business process manager, information manager, database manager, data communications specialist, systems analyst or programmer.

### Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

### Study Areas

IT07 will not have nominated majors and minors and consequently there will not be a Study Area A shown on a graduate's parchment. Instead, IT07 will have specialisations. The specialisation areas that will be

available for students will include:

- Business Process Management
- Data Warehousing
- Digital Societies
- Enterprise Systems
- Information Management
- Network Systems
- Software Engineering
- Web Technologies

### Pathways to Further Studies

In 2001, the Faculty introduced an accelerated Honours program to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of their a BIT degree (or double degree) which would be counted both for completion of the degree and towards the Honours program. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete a BIT degree (or double degree) with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

### Cooperative Education

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

### Further Information

For further information about this course, please contact:

#### Course Coordinator

Dr Taizan Chan or Mr Richard Thomas

Phone:(07)3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### 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.

IT Specialisation Option

IT Specialisation Option

## **IT07- Bachelor of Corporate Systems Management/ Bachelor of Information Technology - 2011**

### **IT07 Course Outline 2010**

#### **Year 1, Semester 1**

INB120	Corporate Systems
INB122	Organisational Databases
INB101	Impact of IT
INB102	Emerging Technology

#### **Year 1, Semester 2**

INB123	Project Management Practice
BSB115	Management
INB103	Industry Insights
INB104	Building IT Systems

#### **Year 2, Semester 1**

INB220	Business Analysis
BSB126	Marketing
	IT Breadth Option
	IT Breadth Option

#### **Year 2, Semester 2**

INB124	Information Systems Development
MGB223	Entrepreneurship and Innovation
	IT Breadth Option
	IT Breadth Option

#### **Year 3, Semester 1**

INB322	Information Systems Consulting
INB221	Technology Management
INB201	Scalable Systems Development
	IT Specialisation Option

#### **Year 3, Semester 2**

INB300	Professional Practice in IT
INB313	Electronic Commerce Site Development
	General Elective
	IT Specialisation Option

#### **Year 4, Semester 1**

INB312	Enterprise Systems Applications
INB325	Corporate Systems Management Project
INB301	The Business of IT
	IT Specialisation Option

#### **Year 4, Semester 2**

INB320	Business Process Modelling
INB302	IT Capstone Project

## **IT07 - Course Structure for students who commenced in 2010**

### **IT07 Course Outline 2010**

#### **Year 1, Semester 1**

INB120	Corporate Systems
INB122	Organisational Databases
INB101	Impact of IT
INB102	Emerging Technology

#### **Year 1, Semester 2**

INB123	Project Management Practice
BSB115	Management
INB103	Industry Insights
INB104	Building IT Systems

#### **Year 2, Semester 1**

INB220	Business Analysis
BSB126	Marketing
	IT Breadth Option
	IT Breadth Option

#### **Year 2, Semester 2**

INB124	Information Systems Development
MGB223	Entrepreneurship and Innovation
	IT Breadth Option
	IT Breadth Option

#### **Year 3, Semester 1**

INB322	Information Systems Consulting
INB221	Technology Management
INB201	Scalable Systems Development
	IT Specialisation Option

#### **Year 3, Semester 2**

INB300	Professional Practice in IT
INB313	Electronic Commerce Site Development
	General Elective
	IT Specialisation Option

#### **Year 4, Semester 1**

INB312	Enterprise Systems Applications
INB325	Corporate Systems Management Project
INB301	The Business of IT
	IT Specialisation Option

#### **Year 4, Semester 2**

INB320	Business Process Modelling
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INB302 Capstone Project  
IT Specialisation Option  
IT Specialisation Option

### IT Specialisation Option Unit List

#### IT Specialist Option Units

You must complete four (4) units from the following list. Please ensure you have completed a minimum of 36 credit points (3 units) of IT Breadth Option Units before commencing these units. The units are grouped in areas to assist you in focusing your studies.

#### 1. BUSINESS PROCESS MANAGEMENT:

INB320 Business Process Modelling  
INB321 Business Process Management  
INB322 Information Systems Consulting  
INB123 Project Management Practice

#### 2. DATA WAREHOUSING:

INB340 Database Design  
INB341 Software Development With Oracle  
INB342 Enterprise Data Mining and Data Analysis  
INB343 Advanced Data Mining and Data Warehousing  
INB344 Search Engine Technology

#### 3. DIGITAL ENVIRONMENTS:

INB345 Mobile Devices  
INB346 Enterprise 2.0  
INB347 Web 2.0 Applications  
INB335 Information Resources

#### 4. ENTERPRISE SYSTEMS:

INB123 Project Management Practice  
INB221 Technology Management  
INB311 Enterprise Systems  
INB312 Enterprise Systems Applications

#### 5. NETWORK SYSTEMS:

INB350 Internet Protocols and Services  
INB351 Unix Network Administration  
INB352 Network Planning  
INB353 Wireless and Mobile Networks

#### 6. SOFTWARE ENGINEERING:

INB370 Software Development  
INB371 Data Structures and Algorithms  
INB372 Agile Software Development  
INB374 Enterprise Software Architecture

#### 7. WEB TECHNOLOGIES:

INB313 Electronic Commerce Site Development  
INB373 Web Application Development  
INB374 Enterprise Software Architecture  
INB385 Multimedia Systems

INB386 Advanced Multimedia Systems

8. UNGROUPED:

INB204 Special Topic 1

INB205 Special Topic 2

INB304 Special Topic 3

INB305 Special Topic 4

INB306 Project 1

INB307 Project 2

INB308 Project 3

INB355 Cryptology and Protocols

INB365 Systems Programming

INB381 Modelling and Animation Techniques

INB382 Real Time Rendering Techniques

INB860 Computational Intelligence for Control and Embedded Systems

### IT Breadth Option Unit List

#### IT Breadth Option Units

You must complete four (4) units from the following list. You should not commence these units until you have completed INB101, INB102, INB103 and INB104.

INB120 Corporate Systems

INB210 Databases

INB220 Business Analysis

INB250 Foundations of Computer Science

INB251 Networks

INB255 Security

INB270 Programming

INB271 The Web

INB272 Interaction Design



## **Bachelor of Corporate Systems Management/Bachelor of Information Technology (IT08)**

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 063028M

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,878 per semester (indicative)

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**International Entry:** February

**QTAC code:** 416932

**Past rank cut-off:** 74

**Past OP cut-off:** 13

**Course coordinator:** Richard Thomas (Information Systems Major), Dr Taizan Chan (Corporate Systems Management Major)

**Campus:** Gardens Point

### **Bachelor of Corporate Systems Management/ Bachelor of Information Technology**

#### **Course Structure 2009 (Continuing Students Only)**

This course is discontinued as of 2009 and is only available to continuing students.

#### **Year 1, Semester 1**

INB120	Corporate Systems
INB122	Organisational Databases
INB103	Industry Insights
INB250	Systems Architecture

#### **Year 1, Semester 2**

INB123	Project Management Practice
BSB115	Management
INB210	Databases
INB104	Building IT Systems

#### **Year 2, Semester 1**

INB101	Impact of IT
BSB126	Marketing
INB270	Programming
	Intermediate Level IT Elective

#### **Year 2, Semester 2**

INB124	Information Systems Development
MGB223	Entrepreneurship and Innovation
INB251	Networks
INB271	The Web

#### **Year 3, Semester 1**

INB312	Enterprise Systems Applications
INB220	Business Analysis
INB221	Technology Management

IT Elective Unit

#### **Year 3, Semester 2**

INB320	Business Process Modelling
	General Elective
	IT Elective Unit
	IT Elective Unit

#### **Year 4, Semester 1**

INB322	Information Systems Consulting
INB335	Information Resources
INB301	The Business of IT
	IT Elective Unit

#### **Year 4, Semester 4**

EITHER

INB302	Capstone Project
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OR

INB325	Corporate Systems Management Project
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AND

The following three units:

General Elective

IT Elective Unit

IT Elective Unit

### **IT Elective List**

#### **IT Elective Units**

INB123	Project Management Practice
INB221	Technology Management
INB311	Enterprise Systems
INB313	Electronic Commerce Site Development
INB374	Enterprise Software Architecture
INB386	Advanced Multimedia Systems
INB320	Business Process Modelling
INB321	Business Process Management
INB322	Information Systems Consulting
INB323	Smart Services
INB330	Information Management
INB331	Management Issues for Information Professionals
INB334	Information Issues and Values
INB335	Information Resources
INB340	Database Design
INB341	Software Development With Oracle
INB342	Enterprise Data Mining and Data Analysis
INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB353	Wireless and Mobile Networks
INB370	Software Development

INB371	Data Structures and Algorithms
INB372	Agile Software Development
INB374	Enterprise Software Architecture
INB204	Special Topic 1
INB205	Special Topic 2
INB300	Professional Practice in IT
INB305	Special Topic 4
INB304	Special Topic 3
INS350	CCNA 1&2 Network Fundamentals and Routing
INS352	CCNP1: Building Scalable Internetworks
INS351	CCNA 3&4 Lan Switching
INS353	CCNP 2: Building Multi Layered Switched Networks
INS354	CCNP3: Building Multi Layered Switched Networks
INS355	CCNP 4: Optimising Converged Networks
INB306	Project 1
INB307	Project 2
INB308	Project 3
INB365	Systems Programming
INB355	Cryptology and Protocols
INB860	Computational Intelligence for Control and Embedded Systems
INB346	Enterprise 2.0
INB345	Mobile Devices
INB347	Web 2.0 Applications
INB334	Information Issues and Values

## Bachelor of Corporate Systems Management/Bachelor of Games and Interactive Entertainment (IT09)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 063029K

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,9787 (indicative) per semester

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 418912

**Past rank cut-off:** 74

**Past OP cut-off:** 13

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA), Maths A, B or C (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Course coordinator:** Michael Docherty (Games), Dr Taizan Chan (Corp. Systems)

**Discipline coordinator:** Dr Taizan Chan (BCSM); Ruth Christie (BGIE)

**Campus:** Gardens Point and Kelvin Grove

### Course overview

This double degree gives you expertise in the development of computer games and other forms of interactive media along with the knowledge of how to manage the broader business and information environment of a games organisation. You will develop the skills to understand the business needs of the games and entertainment industries and combine these with your technical knowledge and skills to be able to play a role in the management of these organisations.

You will gain an understanding of issues related to people and process management in games development and demonstrate the ability to be an effective leader and innovator. You will learn lifelong skills to enable you to continuously improve games and interactive entertainment. This degree will give you the skills to engage in the cultural dialogue of games design and communicate professionally. You will also develop the creative skills to enable you to participate in the development process related to games and interactive media. In final year, you will participate in a major group project to produce a significant piece of work using PC, mobile devices, consoles or virtual reality.

### Career Outcomes

Graduates may find roles as an entrepreneur in the games environment, or in management roles within the games and entertainment industry, for example, project manager, production manager, producer, content manager, business development manager, product manager or marketer.

### Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

### Cooperative Education Program

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

### Further Information

For further information about this course, please contact:

#### Course Coordinator

Dr Taizan Chan

Phone:(07)3138 2533

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

or

Michael Docherty

Phone: (07) 3138 2868

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### 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.

### IT09 Course Structure 2011

#### Year 1, Semester 1

INB120	Corporate Systems
INB103	Industry Insights
INB180	Computer Games Studies
INB182	Introducing Design

#### Year 1, Semester 2

BSB115	Management
INB104	Building IT Systems
INB123	Project Management Practice
INB181	Introduction to Games Production

#### Year 2, Semester 1

INB101	Impact of IT
INB122	Organisational Databases
	Games & Interactive Entertainment Major Unit
	Games & Interactive Entertainment Major Unit

#### Year 2, Semester 2

# FACULTY OF SCIENCE AND TECHNOLOGY

INB124	Information Systems Development
BSB126	Marketing
	Games & Interactive Entertainment Major Unit
	Games & Interactive Entertainment Major Unit

## Year 3, Semester 1

INB220	Business Analysis
INB221	Technology Management
	Games & Interactive Entertainment Major Unit
	Games & Interactive Entertainment Major Unit

## Year 3, Semester 2

MGB223	Entrepreneurship and Innovation
INB301	The Business of IT
	Games & Interactive Entertainment Major Unit
	Games & Interactive Entertainment Major Unit

## Year 4, Semester 1

INB379	Game Project Design
INB322	Information Systems Consulting
INB312	Enterprise Systems Applications
INB325	Corporate Systems Management Project

## Year 4, Semester 2

INB380	Games Project
INB320	Business Process Modelling
	Games & Interactive Entertainment Major Unit
INB313	Electronic Commerce Site Development

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

### Animation

Select 8 units from:

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

### Digital Media

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

KIB309	Embodied Interactions
KIB230	Interface and Information Design
INB385	Multimedia Systems
KIB314	Tangible Media

## Game Design

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

## Software Technologies\*

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

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

## IT09 Course Structure 2010

### Year 1, Semester 1

INB120	Corporate Systems
INB103	Industry Insights
INB180	Computer Games Studies
INB182	Introducing Design

### Year 1, Semester 2

BSB115	Management
INB104	Building IT Systems
INB123	Project Management Practice
INB181	Introduction to Games Production

### Year 2, Semester 1

INB101	Impact of IT
INB122	Organisational Databases
	Games & Interactive Entertainment Major Unit
	Games & Interactive Entertainment Major Unit

### Year 2, Semester 2

## FACULTY OF SCIENCE AND TECHNOLOGY

INB124	Information Systems Development
BSB126	Marketing
	Games & Interactive Entertainment Major Unit
	Games & Interactive Entertainment Major Unit

### Year 3, Semester 1

INB220	Business Analysis
INB221	Technology Management
	Games & Interactive Entertainment Major Unit
	Games & Interactive Entertainment Major Unit

### Year 3, Semester 2

MGB223	Entrepreneurship and Innovation
INB301	The Business of IT
	Games & Interactive Entertainment Major Unit
	Games & Interactive Entertainment Major Unit

### Year 4, Semester 1

INB379	Game Project Design
INB322	Information Systems Consulting
INB312	Enterprise Systems Applications
INB325	Corporate Systems Management Project
	Or
	IT Elective Unit

### Year 4, Semester 2

INB380	Games Project
INB320	Business Process Modelling
	Games & Interactive Entertainment Major Unit
INB313	Electronic Commerce Site Development

INB124	Information Systems Development
INB313	Electronic Commerce Site Development
	Games & Interactive Entertainment Major Unit
	Games & Interactive Entertainment Major Unit

### Year 3, Semester 1

INB220	Business Analysis
INB221	Technology Management
	Games & Interactive Entertainment Major Unit
	Games & Interactive Entertainment Major Unit

### Year 3, Semester 2

MGB223	Entrepreneurship and Innovation
INB301	The Business of IT
	Games & Interactive Entertainment Major Unit
	Games & Interactive Entertainment Major Unit

### Year 4, Semester 1

INB379	Game Project Design
INB322	Information Systems Consulting
INB312	Enterprise Systems Applications
INB325	Corporate Systems Management Project
	Or
	IT Elective Unit

### Year 4, Semester 2

INB380	Games Project
INB320	Business Process Modelling
	Games & Interactive Entertainment Major Unit

## IT09 Course Structure 2009

### Year 1, Semester 1

INB120	Corporate Systems
INB103	Industry Insights
INB180	Computer Games Studies
INB204	Special Topic 1

### Year 1, Semester 2

BSB115	Management
INB104	Building IT Systems
INB123	Project Management Practice
INB181	Introduction to Games Production

### Year 2, Semester 1

INB101	Impact of IT
INB122	Organisational Databases
	Games & Interactive Entertainment Major Unit
	Games & Interactive Entertainment Major Unit

### Year 2, Semester 2



## University Diploma in Information Technology (IT10)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 025283M

**Course duration (full-time):** 2 semesters

**International Fees (indicative):** 2011: \$8,436 (indicative) per semester

**International Entry:** February, June and October

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Course coordinator:** Elizabeth McDade

### QUT International College

International students may upgrade to the QUT Bachelor of Information Technology through QUT International College at our Kelvin Grove campus.

The University Diploma in Information Technology is equivalent to two semesters of the Bachelor of Information Technology degree with a total of 96 credit points (48 standard credit points for a full-time semester).

In the University Diploma program, students study six degree core units as well as two English language units that have been designed to support the other core units.

### Progression to the Bachelor of Information Technology

Students who successfully complete these eight units with a grade point average of 4 (on a 7-point scale) and obtain a grade of at least 4 in Professional Communication 2 are given two semesters full-time advanced standing towards their degree and are guaranteed a place in the Bachelor of Information Technology.

Students who complete the University Diploma in Information Technology are also eligible for 96 credit points towards the Bachelor of Corporate Systems Management and Bachelor of Games and Interactive Entertainment.

### Academic Entry Requirements

To be accepted into the program you must have successfully completed senior high school with the required grades. You must also have relevant vocational experience. For more information on entry requirements visit Studyfinder .

This course is not available to Australian or New Zealand citizens or holders of an Australian permanent residency or permanent protection visa.

### English Language Requirements

IELTS 5.5 (with sub-scores of at least 5.0); TOEFL 525 (paper-based test) or TOEFL 193 (computer-based test) or 70 (iBT) (with sub-scores of at least 18 in writing and reading and 17 or more in listening and speaking) or equivalent; or successful completion of the QUT English for Academic Purposes (AEP) program. Students should also check visa requirements.

University Diploma in Information Technology units:

- Building IT Systems
- Databases
- Emerging Technology
- Industry Insights
- Professional Communication 1
- Professional Communication 2
- Networks
- Programming

### Abbreviation

UnivDipInfTech

### Description

The University Diploma in Information Technology, which has intakes for international students in February, June and October, is equivalent to the first year of the Bachelor of Information Technology. In this program, students study six first year faculty core units as well as two units of Communication which have been designed to support their other core units. Students who successfully complete these units earn full academic credit for eight units towards their degree. Graduates articulate to the second year of the Bachelor of Technology. Small lectures and tutorials, additional workshops and the support of Language and Welfare Advisers provide an excellent learning environment.

### Course Completion

Students must obtain at least a grade of 4 (Pass) in all units.

### IT10 - University Diploma in InfoTech (Full-time course structure)

#### Semester One

IND102	Emerging Technology
IND104	Building IT Systems
IND210	Databases
QCD120	Professional Communication 1

NOTE: IND102 & IND210 are offered in ALTERNATE semesters

#### Semester Two

IND103	Industry Insights
IND251	Networks
IND270	Programming
QCD220	Professional Communication 2

NOTE: IND103 & IND251 are offered in ALTERNATE semesters

### Potential Careers:

Academic, Computer Games Developer, Computer Salesperson/Marketer, Computer Systems Engineer, Data Communications Specialist, Database Manager, Digital Composer, Educator, Electronic Commerce Developer, Information Security Specialist, Internet Professional, Multimedia Designer, Network Administrator, Network Manager, Programmer, Public Servant, Secondary School Teacher, Software Engineer, Systems Analyst, Systems Manager, Systems Programmer, Systems Trainer, TAFE Teacher, Teacher, Technical Officer, Trainer, Web

Designer.

## Bachelor of Information Technology (IT21)

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 012656E

**Course duration (full-time):** 3 years (International students must study at Gardens Point)

**Course duration (part-time):** 6 years (not available at Carseldine)

**Domestic fees (indicative):** 2011: CSP rate available August 2010

**International Entry:** February, July and October (Conditions apply for October entry)

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA) and Maths B (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 288

**Course coordinator:** Mr Richard Thomas

**Campus:** Gardens Point and Carseldine

### Course Update

This course is no longer offered to commencing students. Please refer to IT23 for students commencing in 2009.

### Course Design

The course structure is divided into three blocks:

#### Block 1: Common First Year

All students undertake a Common First Year: the first year full-time or first two years part-time of the course. This block is worth 96 credit points.

#### Block 2: Major

At the end of the Common First Year, students choose a major area of study. Four single majors and three integrated majors are available. The Major extends over the second and third years of the course for full-time students, and the third to sixth years for part-time students. Students select one of the following Majors:

- Data Communications (DAT)
- Electronic Commerce (ELC)
- Emerging Technologies (EMT)
- Information Systems (ISS)
- Software Engineering (SOF)
- Data Communications/Information Systems (DCI)
- Data Communications/Software Engineering (CDC)

#### Block 3: General Electives

Students choose the composition of the third block of the course, which extends over the later years of the course and is worth:

- 48 credit points for majors: DAT, SOF, ELC, and ISS; OR
- 24 credit points for majors: EMT, DCI and CDC

Students are encouraged to consider selecting units from outside the Faculty in order to broaden their range of skills.

This course is offered for continuing students only. Please refer to IT23 for students commencing from 2009.

### Career Outcomes

IT is now an integral part of all commercial, industrial and government activities.

A graduate may find employment as a: Programmer, Software Engineer, Systems Programmer, Computer Scientist, Systems Analyst, Data Communications Specialist, Information Manager, Electronic Commerce Developer, Games Developer, Multimedia Specialist, Network Administrator, Database Manager, Web Developer.

For information on the above job descriptions, visit IT Skills Hub.

### 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.

### Professional Recognition

Graduates of the Bachelor of Information Technology meet the knowledge requirement for admission to the Australian Computer Society (ACS) as members.

### Co-operative Education Program

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

### Unit Incompatibility/Translation Information

Details on the translation and incompatibility of old and new units is located here:

Undergraduate Translation Table

If you have completed the unit(s) listed under the "Translation Unit Codes" column you are not permitted to enrol in the listed new code.

### Course Outline

#### Block 1: Common First Year (8 Units)

#### Block 2: Major (12 Units)

Data Communications

Electronic Commerce

Information Systems

Software Engineering

INB313

Electronic Commerce Site Development

INB350

Internet Protocols and Services

INB255

Security

Four (4) Major Elective Units to be chosen from the IT Elective List

## Block 2: Major (14 Units)

Emerging Technologies

Data Communications and Information Systems

Data Communications and Software Engineering

## IT21 - Emerging Technologies Major

### Emerging Technologies Major

INB372 Agile Software Development

INB301 The Business of IT

MGB218 Managing Business Growth  
OR

MGB223 Entrepreneurship and Innovation

Ten (10) Major Elective Units to be chosen from the IT Elective List

## Block 3: General Electives

4 Units for the following majors

Data Communications

Electronic Commerce

Information Systems

Software Engineering

2 Units for the following majors

Emerging Technologies

Data Communications and Information Systems

Data Communications and Software Engineering

## IT21 - Information Systems Major

### Information Systems Major

INB271 The Web

INB301 The Business of IT

INB311 Enterprise Systems

INB340 Database Design

Seven (7) Major Elective Units to be chosen from the IT Elective List

## IT21 - Common First Year

### Common First Year

INB104 Building IT Systems

INB103 Industry Insights

INB270 Programming

INB210 Databases

INB250 Foundations of Computer Science

INB251 Networks

Choose one unit from: Intermediate Level Elective list. This choice will replace ITB008 from 2009 course summary.

IT Elective Unit

## IT21 - Software Engineering Major

### Software Engineering Major

INB301 The Business of IT

INB372 Agile Software Development

INB350 Internet Protocols and Services

Five (5) Major Elective Units to be chosen from the IT Elective List

## IT21 - Data Communications Major

### Data Communications Major

INB350 Internet Protocols and Services

INB351 Unix Network Administration

INB352 Network Planning

INB353 Wireless and Mobile Networks

INB255 Security

Five (5) Major Elective Units to be chosen from the IT Elective List

## IT21 - Data Communications & Information Systems Major

### Data Communications & Information Systems Major

INB271 The Web

INB311 Enterprise Systems

INB340 Database Design

INB350 Internet Protocols and Services

INB351 Unix Network Administration

INB353 Wireless and Mobile Networks

INB255 Security

Five (5) Major Elective Units to be chosen from the IT Elective List

## IT21 - Electronic Commerce Major

### Electronic Commerce Major

BSB213 Governance Issues in E-Business

INB271 The Web

INB311 Enterprise Systems

INB340 Database Design

## IT21 - Data Communications & Software Engineering Major

### Data Communications & Software Engineering Major

INB301 The Business of IT

## FACULTY OF SCIENCE AND TECHNOLOGY

INB372	Agile Software Development
INB371	Data Structures and Algorithms
INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB353	Wireless and Mobile Networks
INB370	Software Development
INB255	Security
Four (4) Major Elective Units to be chosen from the IT Elective List	

### IT Elective Unit List

#### Information Technology Elective Unit List

INB104	Building IT Systems
INB103	Industry Insights
INB270	Programming
INB210	Databases
INB250	Foundations of Computer Science
INB251	Networks
INB271	The Web
INB301	The Business of IT
INB302	IT Capstone Project
INS011	Co-operative Education 1
INS351	CCNA 3&4 Lan Switching
INB280	Fundamentals of Game Design
INB281	Advanced Game Design
INB341	Software Development With Oracle
INB311	Enterprise Systems
INB340	Database Design
INB306	Project 1
INB312	Enterprise Systems Applications
INB342	Enterprise Data Mining and Data Analysis
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB330	Information Management
INB320	Business Process Modelling
INB335	Information Resources
INB120	Corporate Systems
INB122	Organisational Databases
INB123	Project Management Practice
INB124	Information Systems Development
INB220	Business Analysis
INB221	Technology Management
INB325	Corporate Systems Management Project
INB371	Data Structures and Algorithms
INB305	Special Topic 4
INB272	Interaction Design

INB365	Systems Programming
INB372	Agile Software Development
INB370	Software Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB255	Security
INB353	Wireless and Mobile Networks
INB355	Cryptology and Protocols
INB382	Real Time Rendering Techniques
INB381	Modelling and Animation Techniques
INB181	Introduction to Games Production
INB180	Computer Games Studies
INB204	Special Topic 1
INB205	Special Topic 2
INB304	Special Topic 3
INB860	Computational Intelligence for Control and Embedded Systems
MAB281	Mathematics for Computer Graphics

### Potential Careers:

Computer Games Developer, Computer Salesperson/Marketer, Computer Systems Engineer, Data Communications Specialist, Database Manager, Electronic Commerce Developer, Internet Professional, Network Administrator, Network Manager, Programmer, Software Engineer, Systems Analyst, Systems Manager, Systems Programmer, Technical Officer, Web Designer.



## **Bachelor of Information Technology (IT22)**

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 012656E

**Course duration (full-time):** 3 years

**Course duration (part-time):** 6 years

**Domestic fees (indicative):** 2011: CSP \$3,886 (indicative) per semester

**International Fees (indicative):** 2011: \$11,375 (indicative) per semester

**QTAC code:** 416801

**Past rank cut-off:** 74

**Past OP cut-off:** 13

**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:** Mr Richard Thomas

**Campus:** Gardens Point

### **Course Information**

From semester one, 2009 this course will not be available for commencing students. IT22 will only be available for continuing students. New students - please refer to IT23.

### **Course Overview**

A Bachelor of Information Technology will start you on a challenging and rewarding career path facing the changes brought about by evolving global innovations. You will have the flexibility in your course to complement your skills and knowledge with a cross-section of study areas from other disciplines and faculties.

This course offers you a wide range of options to build your information technology skill set and develop complementary skills from other professional disciplines. You will gain a strong theoretical and practical foundation to advance your career aspirations, choosing from compact and focused specialisations allowing you to hone your skills in an advanced area of information technology and other professions.

### **Course Requirements**

**Block A: IT Core Studies**

All students undertake ten core units over the duration of their course.

**Block B: IT Major**

Students who started their IT22 degree in 2008 must choose an IT Major consisting of six designated units from one of the following 4 Majors:

- Information Systems (ISY)
- Network Systems (NET)
- Software Architecture (SOA)
- Generic – No Major (XYZ)

Students who started their IT22 degree before 2008 must choose an IT Major consisting of six designated units from one of the following 13 Majors:

- Business Systems Engineering (BSE)
- Databases (DTB)
- Electronic Business (EBI)
- Games Technology (GAM)
- Information and Knowledge Management (ITK)
- Information Systems (ISY)
- Information Technology Management (IMG)
- Intelligent Systems (ITS)
- Interactive Media (IAM)
- Network Systems (NET)
- Security (SEC)
- Software Architecture (SOA)
- Web Services and Applications (WSA)

**Block C: Complementary Studies**

Students choose the composition of the third block of the course. The choice may include one from the following suggestions:

- A six unit set (which may be chosen from the IT Majors) and two electives, or
- An approved unit set (four units) available from the list of University Wide Unit Sets  
<http://www.courses.qut.edu.au/cgi-bin/WebObjects/Courses.woa/wa/selectFacultyFromMain?aculty=IT> and four electives, or
- Eight specified electives as approved by the Course Coordinator

**Note:** A maximum of 4 units of professional certification permissible towards complementary studies. This includes CISCO, Microsoft, etc.

### **Scholarships**

If you wish to enrol in the Bachelor of Information Technology, you may like to consider our Dean's Scholars Program for OP1-2 students. If you are a female high school student, you may also apply for our 'go for IT gURL' merit scholarships.

Find out more about the range of scholarships available.

### **Cooperative Education Program**

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

### **Professional Recognition**

Graduates of the Bachelor of Information Technology meet the knowledge requirement for admission to the Australian Computer Society (ACS) as members.

## 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.

## 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.

## Further Information

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

### Course Co-Ordinator

Mr Richard Thomas

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

## Bachelor of Information Technology

### Course Structure

From semester one, 2009 this course will not be available for commencing students. IT22 will only be available for continuing students. New students - please refer to IT23. Please contact [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au) for any enquiries.

The course structure consists of 10 IT Core Studies Units (Block A), 6 Major Units (Block B) if applicable, and 8 Complementary Studies Area Units (Block C). For those students who choose the Generic No Major option, students replace the major units with any 6 ITBxxx units provided they meet the prerequisites.

Eight (8) Block A units are completed in the first year, while the remaining two (2) Block A units are completed later in the course.

Block C Complementary Studies Area (8 units): Students choose the composition which may include: a second IT Major (6 units) or an approved minor (4 units) and 4 electives or 8 specified electives as approved by the Course Coordinator.

### Recommended Core Unit Progression

#### Year 1, Semester 1

INB104	Building IT Systems
INB103	Industry Insights

INB210	Databases
INB250	Foundations of Computer Science

#### Year 1, Semester 2

INB270	Programming
INB251	Networks
INB271	The Web

Choose one unit from: Intermediate Level Elective list. This choice will replace ITB008 from 2009 course summary.

#### 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

INB301	The Business of IT
	Block B or Block C Unit
	Block B or Block C Unit
	Block B or Block C Unit

#### Year 3, Semester 1

INB302	IT Capstone Project
	Block B or Block C Unit
	Block B or Block C Unit
	Block B or Block C Unit

#### Year 3, Semester 2

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

## No Major Options

Students can choose any 6 INB--- units (subject to prerequisite eligibility) from the Information Technology Undergraduate Elective/Options List as found at the below URL.

[http://www.studentservices.qut.edu.au/pdfs/IT\\_elective\\_list.pdf](http://www.studentservices.qut.edu.au/pdfs/IT_elective_list.pdf)

## Information Systems Major

### Compulsory Units

INB311	Enterprise Systems
INB340	Database Design
INB220	Business Analysis

### IS Elective Units

INB312	Enterprise Systems Applications
INB342	Enterprise Data Mining and Data Analysis

## FACULTY OF SCIENCE AND TECHNOLOGY

INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB320	Business Process Modelling
INB124	Information Systems Development
INB221	Technology Management

INB255	Security
INB272	Interaction Design
	OR
	an INB300 level unit as approved by the course coordinator

### Network Systems Major

#### Compulsory Units

INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB255	Security

#### Electives

INB312	Enterprise Systems Applications
INB365	Systems Programming
INB353	Wireless and Mobile Networks
INB355	Cryptology and Protocols

### Software Architecture Major

#### Compulsory Units

INB340	Database Design
INB371	Data Structures and Algorithms
INB372	Agile Software Development

#### Electives

	Choose 3 Electives
INB341	Software Development With Oracle
INB311	Enterprise Systems
INB312	Enterprise Systems Applications
INB272	Interaction Design
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB320	Business Process Modelling
INB365	Systems Programming
INB370	Software Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques
MAB281	Mathematics for Computer Graphics
	MAB281 is only to be used as a prereq for INB381

### Intermediate Level Electives

#### Intermediate Level Electives

INB120	Corporate Systems
INB220	Business Analysis

### IT Elective List

#### IT Elective Units

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

## FACULTY OF SCIENCE AND TECHNOLOGY

INB307	Project 2
INB308	Project 3
INB365	Systems Programming
INB355	Cryptology and Protocols
INB860	Computational Intelligence for Control and Embedded Systems
INB346	Enterprise 2.0
INB345	Mobile Devices
INB347	Web 2.0 Applications
INB334	Information Issues and Values

### Business Systems Engineering Major (pre 2008)

#### Compulsory Units

INB220	Business Analysis
INB311	Enterprise Systems
INB320	Business Process Modelling
INB335	Information Resources

#### IS Elective Units

Select two (2) units from the following list

INB123	Project Management Practice
INB306	Project 1
INB312	Enterprise Systems Applications
INB323	Smart Services
INB340	Database Design
INB341	Software Development With Oracle
INB321	Business Process Management
INB322	Information Systems Consulting

### Databases Major (pre 2008)

#### Core units

INB340	Database Design
INB341	Software Development With Oracle
INB342	Enterprise Data Mining

#### Elective units

Choose 3 Elective units from the following list:

INB306	Project 1
INB311	Enterprise Systems
INB312	Enterprise Systems Applications
INB313	Electronic Commerce Site Development
INB320	Business Process Modelling
INB330	Information Management
INB335	Information Resources
INB343	Advanced Data Mining and Data Warehousing

### Electronic Business Major (pre 2008)

#### Compulsory Units

INB312	Enterprise Systems Applications
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INB313	Electronic Commerce Site Development
INB342	Enterprise Data Mining
BSB212	Electronic Business Applications
BSB213	Governance Issues in E-Business
BSB314	E-Business Intelligence

### Games Technology Major (pre 2008)

#### Compulsory Units

INB370	Software Development
INB381	Modelling and Animation Techniques
INB371	Data Structures and Algorithms
INB382	Real Time Rendering Techniques
INB383	AI for Games
MAB281	Mathematics for Computer Graphics

### Information Systems Major

#### Compulsory Units

INB311	Enterprise Systems
INB340	Database Design
INB220	Business Analysis

#### IS Elective Units

INB312	Enterprise Systems Applications
INB342	Enterprise Data Mining
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB320	Business Process Modelling
INB124	Information Systems Development
INB221	Technology Management

### Information Technology Management Major (pre 2008)

#### Compulsory Units

INB221	Technology Management
INB335	Information Resources
INB322	Information Systems Consulting

#### IS Elective Units

Select three (3) units from the following list:

INB123	Project Management Practice
INB124	Information Systems Development
INB220	Business Analysis
INB341	Software Development With Oracle
INB306	Project 1
INB311	Enterprise Systems
INB340	Database Design

### Intelligent Systems Major (pre 2008)

#### Compulsory Units

INB335	Information Resources	IT Elective
INB342	Enterprise Data Mining and Data Analysis	
INB371	Data Structures and Algorithms	
INB860	Computational Intelligence for Control and Embedded Systems	
	IT Elective (INB383 and INB343 recommended)	
	IT Elective	
	6 Units required	

### **Interactive Media Major (pre 2008)**

#### **Compulsory Units**

6 Compulsory units required.

INB272	Interaction Design
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems
KIB101	Visual Communication
KIB102	Visual Interactions

#### **Elective Units**

Select one (1) unit from the following list:

KIB103	Introduction to Web Design and Development
KIB105	Animation and Motion Graphics
KIB108	Animation History and Practices

#### **KIB units**

Only students enrolled in the IAM major may enrol in KIB\*\*\* units without the approval of the Creative Industries Faculty. These units are held at Kelvin Grove campus - class code to be KG

### **Network Systems Major (pre 2008)**

#### **Compulsory Units**

6 Compulsory units required.

INB350	Internet Protocols and Services
INB351	Computer Network Administration
INB352	Network Planning and Deployment
INB353	Wireless and Mobile Networks
INB365	Systems Programming
	IT Elective

### **Security Major (pre 2008)**

#### **Compulsory Units**

6 Compulsory units required.

INB350	Internet Protocols and Services
INB351	Computer Network Administration
INB355	Cryptology and Protocols
INB255	Security
	IT Elective

IT Elective

### **Software Architecture Major**

#### **Compulsory Units**

INB340	Database Design
INB371	Data Structures and Algorithms
INB372	Agile Software Development

#### **Electives**

Choose 3 Electives

INB341	Software Development With Oracle
INB311	Enterprise Systems
INB312	Enterprise Systems Applications
INB272	Interaction Design
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB320	Business Process Modelling
INB365	Systems Programming
INB370	Software Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques
MAB281	Mathematics for Computer Graphics
	MAB281 is only to be used as a prereq for INB381

### **Web Services and Applications Major (pre 2008)**

#### **Compulsory Units**

4 Compulsory units required.

INB272	Interaction Design
INB313	Electronic Commerce Site Development
INB373	Web Application Development
INB374	Enterprise Software Architecture

#### **Choose 1 of the following:**

INB255	Security
INB350	Internet Protocols and Services
INB370	Software Development
INB371	Data Structures and Algorithms
INB372	Agile Software Development

#### **Elective Units (1)**

IT Elective

### **Complementary Studies (Block C) (pre 2008)**

Students choose the composition of the third block of the course from the following:

A six unit set (which may be chosen from the



IT Majors) and two electives, or  
An approved four unit set and four electives,  
or  
Eight specified Complementary Studies  
Electives

In selecting Block C Complementary Studies Electives,  
students may choose:

Units from other Bachelor of Information  
Technology majors; and/or

Units from any degree-level course offered at  
QUT; and/or

Industry Certification courses (eg. Cisco  
Certified Network Professional (CCNP),  
Microsoft Certified Solution Developer (MCSD)  
etc.) up to a limit of 48 credit points in Block C  
units as specified. Students wishing to pursue  
this option should discuss this with the Course  
Coordinator; and/or

With the approval of the Course Coordinator,  
units from any degree-level or equivalent  
tertiary-level course offered at other tertiary-  
level institutions.

**Potential Careers:**

Business Analyst, Computer Game Programmer, Computer  
Games Developer, Computer Systems Engineer, Data  
Communications Specialist, Database Manager, Electronic  
Commerce Developer, Information Security Specialist,  
Internet Professional, Multimedia Designer, Network  
Administrator, Network Manager, Programmer, Project  
Manager, Software Engineer, Systems Analyst, Systems  
Manager, Systems Programmer, Web Designer.

## Bachelor of Information Technology - Dean's Scholars Program (IT22)

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 012656E / 017323G

**Course duration (full-time):** 3 years

**Domestic fees (indicative):** 2011: CSP \$3,886 (indicative) per semester

**International Fees (indicative):** 2011: \$11,375 (indicative) per semester

**QTAC code:** 416002

**Past rank cut-off:** 96. Also see entry requirements

**Past OP cut-off:** 3. Also see entry requirements

**Assumed knowledge:** English (4, SA) and Maths A, B or C (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Course coordinator:** Mr Richard Thomas

**Campus:** Gardens Point

### Financial Support

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

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

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

### Cooperative Education Program

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your degree. Students wishing to participate in the Cooperative Education Program should be aware that they will not receive financial support as a Dean's Scholar for the duration of the placement.

Find out more about the Cooperative Education Program.

### Deferment

QUT's deferment policy does not apply to this course.

### Professional Recognition

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

### New Unit Translations/Incompatibility Table

Details on the translation and incompatibility of old and new units is located here:

Undergraduate Translation Table and Postgraduate 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.

### International Student Entry

To be eligible to enrol in the Honours program, students must demonstrate appropriate levels of achievement in the Bachelor of Information Technology course.

Offers in the Honours program will be made conditionally on the student maintaining a GPA of 5.5 in the Bachelor of Information Technology component to be eligible to continue to the Bachelor of Information Technology (Honours). It is expected that many Dean's Scholars will proceed to PhD studies. However, students have the option of exiting after the Bachelor of Information Technology (2.5yrs).

### Further Information

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

Richard Thomas

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

## Bachelor of Information Technology

### Course Structure

### Recommended Core Unit Progression

#### Year 1, Semester 2

INB270 Programming

INB251 Networks

INB271 The Web

Intermediate Level Elective

#### 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

Block B or Block C Unit

#### Year 2, Semester 2

INB301 The Business of IT

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, Summer

INB302 IT Capstone Project

Undertaken over four (4) weeks.

#### Year 3, Semester 1

Block B or Block C Unit

Block B or Block C Unit

## FACULTY OF SCIENCE AND TECHNOLOGY

Block B or Block C Unit

Block B or Block C Unit

INN Unit

### Year 3, Semester 2

INN700 Introduction To Research

INN Elective

INN Elective

INN401 Honours Dissertation 1

### Year 3, Summer

INN402 Honours Dissertation 2

INN403 Honours Dissertation 3

INN404 Honours Dissertation 4

### Software Architecture Major

#### Compulsory Units

INB340 Database Design

INB371 Data Structures and Algorithms

INB372 Agile Software Development

#### Electives

Choose 3 Electives

INB341 Software Development With Oracle

INB311 Enterprise Systems

INB312 Enterprise Systems Applications

INB272 Interaction Design

INB313 Electronic Commerce Site Development

INB322 Information Systems Consulting

INB320 Business Process Modelling

INB365 Systems Programming

INB370 Software Development

INB373 Web Application Development

INB374 Enterprise Software Architecture

INB381 Modelling and Animation Techniques

INB382 Real Time Rendering Techniques

MAB281 Mathematics for Computer Graphics

MAB281 is only to be used as a prereq for INB381

### Information Systems Major

#### Compulsory Units

INB311 Enterprise Systems

INB340 Database Design

INB220 Business Analysis

#### IS Elective Units

INB312 Enterprise Systems Applications

INB342 Enterprise Data Mining and Data Analysis

INB313 Electronic Commerce Site Development

INB322 Information Systems Consulting

INB320 Business Process Modelling

INB124 Information Systems Development

INB221 Technology Management

### Network Systems Major

#### Compulsory Units

INB350 Internet Protocols and Services

INB351 Unix Network Administration

INB352 Network Planning

INB255 Security

#### Electives

INB312 Enterprise Systems Applications

INB365 Systems Programming

INB353 Wireless and Mobile Networks

INB355 Cryptology and Protocols

### Potential Careers:

Computer Game Programmer, Computer Games Developer, Computer Salesperson/Marketer, Computer Systems Engineer, Data Communications Specialist, Database Manager, Electrical and Computer Engineer, Information Officer, Information Security Specialist, Internet Professional, Manager, Multimedia Designer, Network Administrator, Network Manager, Programmer, Project Manager, Software Engineer, Systems Analyst, Systems Manager, Systems Programmer, Systems Trainer, Web Designer.

## Bachelor of Information Technology (IT23)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 012656E

**Course duration (full-time):** 3 years

**Course duration (part-time):** 6 years

**Domestic fees (indicative):** 2011: CSP \$3,886 (indicative) per semester

**International Fees (indicative):** 2011: \$11,375 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**QTAC code:** 418801

**Past rank cut-off:** 74

**Past OP cut-off:** 13

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), 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:** Mr Mike Roggenkamp

**Campus:** Gardens Point

### Overview

Information technology enables almost every aspect of modern society; from phones to MP3 players to dashboard navigation systems, from ATMs to robotic assembly lines to satellite communication, from online booking systems to banking to instant messaging. Information technology is everywhere you look.

The information technology landscape is ever changing, making a job in information technology an interesting and rewarding career path. At present we are entering a new, connected era where the virtual and real worlds are becoming one through applications like Facebook, MySpace and Second Life.

If you want to work with cutting-edge technology and be a part of creating technologies that have not been invented yet, this is the degree for you.

### Why Choose This Course

This degree is innovative in its approach to teaching. You will experience a hands-on approach to learning through projects where you develop information technology systems and work in a collaborative team setting. The degree structure is flexible, giving you the opportunity to customise your degree to suit the area/s you wish to focus on.

Modern information technology professionals need to know more than technology; they have to understand how to shape the industries of the future, through an effective blend of information technology and business knowledge. The Faculty's close collaboration with industry ensures that the degree is structured to stay up to date with industry needs—now and into the future. This in turn enables you to acquire the right skills and knowledge needed to secure a

job and progress your career.

As the Area Academy Training Centre, Australia and New Zealand for the CISCO Networking Academy Program, we also offer you a range of CISCO programs. As a QUT Bachelor of Information Technology student, completion of any CISCO programs at QUT can be credited to your QUT degree.

Through our flexible degree program, with opportunities for engagement with real world professionals and industry leaders, and work experience program options, you will have the opportunity to prepare yourself for the future and realise your full potential.

### Pathways

You have the opportunity to choose a study pathway:

•**professional pathway**— you will learn how to think strategically, identify opportunities and solve problems that we don't even know are problems yet. This pathway will enable you to acquire the business and IT skills to have a career as an IT professional within any industry.

•**research pathway**— if you are interested in shaping the future of the IT industry you can pursue a research career. You will have opportunities to work with researchers on projects and progress on to an honours degree. You will have access to world-leading researchers within the Faculty.

•**entrepreneurship pathway**— you now have the opportunity to gain the entrepreneurial skills to develop an idea into a commercial opportunity. You will be able to take advantage of the Faculty's close relationship with local technology entrepreneurs to learn from their experiences.

In 2001, the Faculty introduced an accelerated Honours program to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of the Bachelor of Information Technology which would be counted both for completion of the degree and towards Honours. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

The Dean's Scholars program was introduced in Semester 1, 2006. This program provides a scholarship for OP 1 and 2 students throughout their Bachelor and Honours degrees. Students in the program are required to maintain a high GPA to continue to qualify for the scholarship each semester. Students in the Dean's Scholars program will be able to take advantage of the Accelerated Honours program. Students in the Dean's Scholars program will have an option to follow an accelerated pathway through the Bachelor of Information Technology, allowing them to complete the Bachelor of Information Technology course plus the Bachelor of Information (Honours) course in a total of three years.

To encourage students to enter the Dean's Scholars program, domestic students have their undergraduate HECS paid by the Faculty and those proceeding to Honour's level will also receive full HECS support. International students who have completed a Year 12 education in Australia and meet the entry requirements for the program will have a third of their tuition fees paid by the Faculty for the undergraduate and Honours program.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete IT23 with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

### Design Your Own Degree

The Bachelor of Information Technology provides you with the practical skills and theoretical knowledge to become an effective professional.

The 24-unit degree comprises:

- eight core units**— four introductory units in first semester to introduce you to the breadth of information technology and its relationship to modern society. Then there are four advanced units spread over the rest of your degree program to develop your professional skills in preparation for your career

- four breadth units** (intermediate level units) – these units give you broad technical experience across a range of fields in information technology. They also give you an introduction to choose the specialisation you wish to focus on

- four specialisation units** (advanced level units) – these units allow you to focus on your chosen area of study, or you may choose to continue to broaden your information technology skills. This option allows you to study across a selection of study areas rather than focusing on one specialisation

- eight optional units**— these units allow you to customise your degree by studying in another professional discipline (for example, business, health, or science). Or you may choose to gain further depth in other areas of information technology.

### SPECIALISATION AREAS

#### Business Process Management

Learn how to increase business efficiency. All businesses require IT to effectively and efficiently support their operations. This specialisation provides you with the skills required to improve business performance.

#### Data Warehousing

Database technology, the software that enables us to buy concert tickets online, download music or book a flight, is sophisticated and complex. You will gain knowledge and

skills in the accurate recording, rapid retrieval and management of data that is essential to modern society. You will learn how to mine existing sets of data to extract hidden knowledge.

### Digital Environments

Study how developments in IT shape society through applications like FaceBook, MySpace, Second Life, smart phones, iPods and gaming devices.

### Enterprise Systems

Enterprise systems from vendors like SAP, Mincom and Oracle form the fundamental structure of organisational processes in most large organisations. You will gain hands-on experience with successful enterprise systems to enable you to put into practice the theory that supports business activities.

### Network Systems

Learn to tackle emerging network issues such as security, network monitoring and high availability design, and gain up-to-date technical skills for the administration and management of computer networks.

### Software Engineering

Software is the invisible infrastructure of modern society. Almost all aspects of business and social endeavour are facilitated by software applications or devices controlled by software. You will learn how leading-edge techniques and technologies enable you to design and implement complex software systems for use in a wide range of domains.

### Web Technologies

Web technologies are the principal mechanism for integrating the various applications that exist within an organisation. They also provide the main user interface for most applications used by internal and external clients, including modern web-based interfaces. You will develop practical skills to help organisations use web technologies effectively in deploying a range of applications and services.

### Career Outcomes

Information technology is an integral part of all commercial, industrial, government, social and personal activities. In the long term, your career opportunities are unbounded. Some information technology graduates retain a technical focus in roles such as web developer, database manager, network administrator, electronic commerce developer, data communications specialist, software engineer, systems programmer, computer scientist, systems analyst or programmer. Others evolve into domain experts as chief technology officers, chief information officers, managers, executives, business analysts, entrepreneurs or researchers. Graduates have the opportunity to achieve the highest levels of their profession.

### Professional Recognition

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 semester you will explore how information technology has changed the world and what the possibilities are for the future. You will look at the details of information, computing and communication technologies to understand how they work. You will take part in hands-on projects developing small information technology systems.

Core units for Year 1:

- Impact of IT
- Emerging Technology
- Industry Insights
- Building IT Systems

In Semester 2 you will undertake three breadth units and one elective.

### Year 2

In your second year you will take part in a collaborative team setting, working on small projects that integrate the skills you learnt during Year 1. You will also start studying more advanced units in your chosen field of specialisation.

Core unit for Year 2:

- Scalable Systems Development

Throughout Year 2 you will undertake one breadth unit, two specialisation units and four elective units.

### Year 3

In third year you will be able to undertake workplace experience opportunities offered by the Faculty, while earning credit towards your degree. You will continue studying in your area of specialisation. In your final semester you will develop a major project, showcasing what you have learnt during your degree—providing you with a key part of your portfolio when seeking a job.

Core units for Year 3:

- Professional Practice in IT
- The Business of IT
- IT Capstone Project

Throughout Year 3 you will undertake two specialisation units and three elective units.

### 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.

### Cooperative Education Program

An optional half or full year period of paid work experience is available to eligible full-time students. Students participating in this program enrol in INS011 Co-Operative Education 1 in the first semester of the program and in INS012 Co-Operative 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 components of both units. Eligibility criteria apply. International students are not eligible due to visa restrictions. International students wishing to undertake a similar program should consider applying to take part in a CEED project or for an ACS Foundation scholarship.

Part-time students who are working in a professional IT position may be able to use their current employment to meet the criteria for completing INB300 Professional Practice in IT, after completion of 168 credit points in the Bachelor of Information Technology. Further information about this option is available from the unit outline for INB300.

Find out more about the Cooperative Education Program.

### Further Information

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

#### Course Co-ordinator

Mr Richard Thomas

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### IT23 Bachelor of Information Technology Course structure 2011

#### Year 1, Semester 1

INB101	Impact of IT
INB102	Emerging Technology
INB103	Industry Insights
INB104	Building IT Systems

#### Year 1, Semester 2

IT Breadth Option Unit
IT Breadth Option Unit
IT Breadth Option Unit
Complementary Studies Unit

#### Year 2, Semester 1

INB201	Scalable Systems Development
[Note: INB201 can only be taken after you have completed a minimum of 36 credit points of breadth units. Please note: INB201 available semester 1 only.]	
	IT Breadth Option Unit
	IT Specialisation Option Unit
	Complementary Studies Unit

#### Year 2, Semester 2

IT Specialisation Option Unit
Complementary Studies Unit
Complementary Studies Unit
Complementary Studies Unit

## Year 3, Semester 1

INB300	Professional Practice in IT
INB301	The Business of IT
	[Note: INB300 and INB301 can only be taken after you have completed a minimum of 168 credit points of study.]
	IT Specialisation Option Unit
	Complementary Studies Unit

## Year 3, Semester 2

INB302	IT Capstone Project
	[Note: INB301 must be completed before enrolling in INB302.]
	IT Specialisation Option Unit
	Complementary Studies Unit
	Complementary Studies Unit

## IT23 Bachelor of Information Technology Course structure 2010

## Year 1, Semester 1

INB101	Impact of IT
INB102	Emerging Technology
INB103	Industry Insights
INB104	Building IT Systems

## Year 1, Semester 2

IT Breadth Option Unit  
IT Breadth Option Unit  
IT Breadth Option Unit  
Complementary Studies Unit

## Year 2, Semester 1

INB201	Scalable Systems Development
	[Note: INB201 can only be taken after you have completed a minimum of 36 credit points of breadth units. Please note: INB201 available semester 1 only.]
	IT Breadth Option Unit
	IT Specialisation Option Unit
	Complementary Studies Unit

## Year 2, Semester 2

IT Specialisation Option Unit  
Complementary Studies Unit  
Complementary Studies Unit  
Complementary Studies Unit

## Year 3, Semester 1

INB300	Professional Practice in IT
INB301	The Business of IT
	[Note: INB300 and INB301 can only be taken after you have completed a minimum of 168 credit points of study.]

IT Specialisation Option Unit  
Complementary Studies Unit

## Year 3, Semester 2

INB302	Capstone Project
	[Note: INB301 must be completed before enrolling in INB302.]
	IT Specialisation Option Unit
	Complementary Studies Unit
	Complementary Studies Unit

## IT Breadth Option Unit List

### IT Breadth Option Units

You must complete four (4) units from the following list. You should not commence these units until you have completed INB101, INB102, INB103 and INB104.

INB120	Corporate Systems
INB210	Databases
INB220	Business Analysis
INB250	Foundations of Computer Science
INB251	Networks
INB255	Security
INB270	Programming
INB271	The Web
INB272	Interaction Design

## IT Specialisation Option Unit List

### IT Specialist Option Units

You must complete four (4) units from the following list. Please ensure you have completed a minimum of 36 credit points (3 units) of IT Breadth Option Units before commencing these units. The units are grouped in areas to assist you in focusing your studies.

1.	BUSINESS PROCESS MANAGEMENT:
INB320	Business Process Modelling
INB321	Business Process Management
INB322	Information Systems Consulting
INB123	Project Management Practice
2.	DATA WAREHOUSING:
INB340	Database Design
INB341	Software Development With Oracle
INB342	Enterprise Data Mining and Data Analysis
INB343	Advanced Data Mining and Data Warehousing
INB344	Search Engine Technology
3.	DIGITAL ENVIRONMENTS:
INB345	Mobile Devices
INB346	Enterprise 2.0
INB347	Web 2.0 Applications

INB335	Information Resources
4.	ENTERPRISE SYSTEMS:
INB123	Project Management Practice
INB221	Technology Management
INB311	Enterprise Systems
INB312	Enterprise Systems Applications
5.	NETWORK SYSTEMS:
INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB353	Wireless and Mobile Networks
6.	SOFTWARE ENGINEERING:
INB370	Software Development
INB371	Data Structures and Algorithms
INB372	Agile Software Development
INB374	Enterprise Software Architecture
7.	WEB TECHNOLOGIES:
INB313	Electronic Commerce Site Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems
8.	UNGROUPEd:
INB204	Special Topic 1
INB205	Special Topic 2
INB304	Special Topic 3
INB305	Special Topic 4
INB306	Project 1
INB307	Project 2
INB308	Project 3
INB355	Cryptology and Protocols
INB365	Systems Programming
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques
INB860	Computational Intelligence for Control and Embedded Systems

### IT - Complementary Study Unit List

Complementary Study Units: A maximum of 96 credit points can be chosen from:

- The list of Breadth and Specialisation units.
- Students can also choose from the range of CISCO units including INS350, INS351, INS352, INS354, INS356 and INS357.
- Undergraduate units from other IT related degrees (e.g. INB124, INB180, INB181, INB182, INB280 or INB383).
- Undergraduate units available with other QUT faculties.
- Enrolment in INB830 or INB870 will NOT be

counted towards completion of IT23.

NOTE: A maximum of 48 credit points of Advanced Standing for professional certifications is permitted towards completion of IT23 (including INS35X CISCO Units).

### CISCO Units

#### CISCO Units

Students can choose from the following CISCO units as part of the Complementary Study Units (CISCO units located under Information Technology University Wide Unit Options on e-Student.)

INS350	CCNA 1&2 Network Fundamentals and Routing
INS351	CCNA 3&4 Lan Switching
INS352	CCNP1: Building Scalable Internetworks
INS354	CCNP3: Building Multi Layered Switched Networks
INS356	Voice Over IP 1
INS357	CISCO VOIP

### IT23 Course structure - Part-time

#### Year 1, Semester 1

INB101	Impact of IT
INB102	Emerging Technology

#### Year 1, Semester 2

INB103	Industry Insights
INB104	Building IT Systems

#### Year 2, Semester 1

Breadth Option  
Breadth Option

#### Year 2, Semester 2

Breadth Option  
Breadth Option

#### Year 3, Semester 1

INB201	Scalable Systems Development
[Note: INB201 can only be taken after you have completed a minimum of 36 credit points of breadth units.]	
	Specialisation Option

#### Year 3, Semester 2

Specialisation Option  
Complementary Studies Unit (Elective)

#### Year 4, Semester 1

Specialisation Option  
Complementary Studies Unit (Elective)

#### Year 4, Semester 2

# FACULTY OF SCIENCE AND TECHNOLOGY

Complementary Studies Unit (Elective)

INB300

Professional Practice in IT

Complementary Studies Unit (Elective)

[Note: INB300 can only be taken after you have completed a minimum of 168 credit points of study.]

## Year 5, Semester 1

Specialisation Option

Specialisation Option

Complementary Studies Unit (Elective)

Complementary Studies Unit (Elective)

Complementary Studies Unit (Elective)

## Year 5, Semester 2

INB300 Professional Practice in IT

Complementary Studies Unit (Elective)

## Year 3, Semester 2 (February)

INB301 The Business of IT

INB302 IT Capstone Project

[Note: INB301 can only be taken after you have completed a minimum of 168 credit points of study. INB301 may be taken concurrently with INB302 for students whose course completes in the middle of the year.]

Specialisation Option

Complementary Studies Unit (Elective)

## Year 6, Semester 1

INB301 The Business of IT

[Note: INB300 and INB301 can only be taken after you have completed a minimum of 168 credit points of study.]

Complementary Studies Unit (Elective)

## Year 6, Semester 2

INB302 IT Capstone Project

[Note: INB301 must be completed before enrolling in INB302.]

Complementary Studies Unit (Elective)

## Potential Careers:

Business Analyst, Computer Scientist, Data Communications Specialist, Database Manager, Electronic Commerce Developer, Information Officer, Network Administrator, Programmer, Software Engineer, Systems Analyst, Systems Programmer, Web Designer.

## IT23 Course structure - Mid-Year entry

### Year 1, Semester 1 (July)

INB101 Impact of IT

INB102 Emerging Technology

INB103 Industry Insights

INB104 Building IT Systems

### Year 1, Semester 2 (February)

Breadth Option

Breadth Option

Breadth Option

Complementary Studies Unit (Elective)

### Year 2, Semester 1 (July)

Breadth Option

Specialisation Option

Complementary Studies Unit (Elective)

Complementary Studies Unit (Elective)

### Year 2, Semester 2 (February)

INB201 Scalable Systems Development

[Note: INB201 can only be taken after you have completed a minimum of 36 credit points of breadth units.]

Specialisation Option

Complementary Studies Unit (Elective)

Complementary Studies Unit (Elective)

### Year 3, Semester 1 (July)

## **Bachelor of Information Technology - Dean's Scholars Program (IT23)**

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 012656E

**Course duration (full-time):** 3 years

**Domestic fees (indicative):** 2011: CSP \$3,886 (indicative) per semester

**International Fees (indicative):** 2011: \$11,375 (indicative) per semester

**Domestic Entry:** February: Fixed closing date - 26th November, 2010

**International Entry:** February: Fixed closing date - 26th November, 2010. This course is only available to international students completing Year 12 in Australia

**QTAC code:** 418002

**Past rank cut-off:** 97 plus successful questionnaire and interview. Please refer to Additional Entry Requirements.

**Past OP cut-off:** 2 plus successful questionnaire and interview. Please refer to Additional Entry Requirements.

**Assumed knowledge:** English (4, SA) and Maths A, B or C (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Course coordinator:** Richard Thomas

**Campus:** Gardens Point

### **Course Overview**

The Dean's Scholars Program is an accelerated honours program allowing completion of the Bachelor of Information Technology and an honours degree in three years instead of four years. This accelerated program is designed for students with an OP 1 or 2 (or equivalent), who can also demonstrate active involvement in their school and local community activities.

The Bachelor of Information Technology gives you a strong theoretical and practical foundation to advance your career aspirations, choosing from compact and focused specialisations allowing you to hone your skills in an advanced area of information technology and other professions.

You will have the flexibility to complement your skills and knowledge in IT with a cross-section of studies from other disciplines.

### **Prerequisites**

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

### **Additional Entry Requirements**

The questionnaire is available from Additional entry requirements or phone (07) 3138 2782. Shortlisted registrants may be required to attend an interview in December and will be notified of date and venue after registrations close.

### **Fixed closing date**

Applications and questionnaires must be submitted by 30 November.

### **Financial support**

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

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

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

### **OP guarantee**

The OP Guarantee does not apply to this program.

### **Cooperative Education Program**

The School of IT's Cooperative Education Program gives you the opportunity of 6 or 12 months paid industry placement during your course where you can integrate real experience with what you are learning in your degree.

Find out more about the Cooperative Education Program.

### **Professional Recognition**

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

### **Deferment**

QUT's deferment policy does not apply to this course.

### **Further Information**

For further information about this course, please contact:

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### **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

### **Course structure 2011**

#### **Year 1, Semester 1**

INB101	Impact of IT
INB102	Emerging Technology
INB103	Industry Insights
INB104	Building IT Systems

#### **Year 1, Semester 2**



Breadth Option  
Breadth Option  
Breadth Option  
Complementary Studies unit (Elective)  
Complementary Studies unit (Elective)

Breadth Option  
Breadth Option  
Breadth Option  
Complementary Studies unit (Elective)

## Note:

From Year 2-Semester 1 to Year 3-Semester 1, students may vary which semester they undertake their Specialisation Options or Complementary Studies units.

## Year 2, Semester 1

INB201 Scalable Systems Development  
Breadth Option  
Specialisation Option  
Specialisation Option  
Complementary Studies unit (Elective)

## Year 2, Semester 2

INB301 The Business of IT  
Specialisation Option  
Specialisation Option  
Complementary Studies unit (Elective)  
Complementary Studies unit (Elective)

## Year 3, Semester 1

INB300 Professional Practice in IT  
INB302 IT Capstone Project  
Postgraduate IT Unit  
Complementary Studies unit (Elective)  
Complementary Studies unit (Elective)

## Year 3, Semester 2

INN700 Introduction To Research  
INN701 Advanced Research Topics  
Postgraduate IT Unit  
INN401 Honours Dissertation 1

## Year 3, Summer

INN402 Honours Dissertation 2  
INN403 Honours Dissertation 3  
INN404 Honours Dissertation 4

## Course structure 2010

## Year 1, Semester 1

INB101 Impact of IT  
INB102 Emerging Technology  
INB103 Industry Insights  
INB104 Building IT Systems

## Year 1, Semester 2

## Year 2, Semester 1

INB201 Scalable Systems Development  
Breadth Option  
Specialisation Option  
Complementary Studies unit (Elective)  
Specialisation Option or Complementary Studies unit (Elective)

## Year 2, Semester 2

INB301 The Business of IT  
Specialisation Option  
Complementary Studies unit (Elective)  
Complementary Studies unit (Elective)  
Specialisation Option or Complementary Studies unit (Elective)

## Year 2, Summer

INB302 Capstone Project

## Year 3, Semester 1

INB300 Professional Practice in IT  
INN Elective  
Complementary Studies unit (Elective)  
Specialisation Option or Complementary Studies unit (Elective)  
Specialisation Option or Complementary Studies unit (Elective)

## Year 3, Semester 2

INN700 Introduction To Research  
INN Elective  
INN Elective  
Honours Dissertation 1

## Year 3, Summer

Honours Dissertation 2  
Honours Dissertation 3  
Honours Dissertation 4

## IT Breadth Option Unit List

## IT Breadth Option Units

You must complete four (4) units from the following list. You should not commence these units until you have completed INB101, INB102, INB103 and INB104.

INB120 Corporate Systems  
INB210 Databases  
INB220 Business Analysis

INB250	Foundations of Computer Science
INB251	Networks
INB255	Security
INB270	Programming
INB271	The Web
INB272	Interaction Design

## IT Specialisation Option Unit List

### IT Specialist Option Units

You must complete four (4) units from the following list. Please ensure you have completed a minimum of 36 credit points (3 units) of IT Breadth Option Units before commencing these units. The units are grouped in areas to assist you in focusing your studies.

1. **BUSINESS PROCESS MANAGEMENT:**
  - INB320 Business Process Modelling
  - INB321 Business Process Management
  - INB322 Information Systems Consulting
  - INB123 Project Management Practice
2. **DATA WAREHOUSING:**
  - INB340 Database Design
  - INB341 Software Development With Oracle
  - INB342 Enterprise Data Mining and Data Analysis
  - INB343 Advanced Data Mining and Data Warehousing
  - INB344 Search Engine Technology
3. **DIGITAL ENVIRONMENTS:**
  - INB345 Mobile Devices
  - INB346 Enterprise 2.0
  - INB347 Web 2.0 Applications
  - INB335 Information Resources
4. **ENTERPRISE SYSTEMS:**
  - INB123 Project Management Practice
  - INB221 Technology Management
  - INB311 Enterprise Systems
  - INB312 Enterprise Systems Applications
5. **NETWORK SYSTEMS:**
  - INB350 Internet Protocols and Services
  - INB351 Unix Network Administration
  - INB352 Network Planning
  - INB353 Wireless and Mobile Networks
6. **SOFTWARE ENGINEERING:**
  - INB370 Software Development
  - INB371 Data Structures and Algorithms
  - INB372 Agile Software Development
  - INB374 Enterprise Software Architecture
7. **WEB TECHNOLOGIES:**
  - INB313 Electronic Commerce Site Development

INB373	Web Application Development
INB374	Enterprise Software Architecture
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems
8.	UNGROUPEd:
INB204	Special Topic 1
INB205	Special Topic 2
INB304	Special Topic 3
INB305	Special Topic 4
INB306	Project 1
INB307	Project 2
INB308	Project 3
INB355	Cryptology and Protocols
INB365	Systems Programming
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques
INB860	Computational Intelligence for Control and Embedded Systems

## IT - Complementary Study Unit List

Complementary Study Units: A maximum of 84 credit points can be chosen from:

1. The list of Breadth and Specialisation units.
  2. Students can also choose from the range of CISCO units including INS350, INS351, INS352, INS354, INS356 and INS357.
  3. Undergraduate units from other IT related degrees (e.g. INB124, INB180, INB181, INB182, INB280 or INB383).
  4. Undergraduate units available with other QUT faculties.
  5. Enrolment in INB830 or INB870 will NOT be counted towards completion of IT23.
- NOTE: A maximum of 48 credit points of Advanced Standing for professional certifications is permitted towards completion of IT23 (including INS5XX CISCO Units).

## CISCO Units

### CISCO Units

Students can choose from the following CISCO units as part of the Complementary Study Units (CISCO units located under Information Technology University Wide Unit Options on e-Student.)

INS350	CCNA 1&2 Network Fundamentals and Routing
INS351	CCNA 3&4 Lan Switching
INS352	CCNP1: Building Scalable Internetworks
INS354	CCNP3: Building Multi Layered Switched Networks
INS356	Voice Over IP 1
INS357	CISCO VOIP

## Postgraduate IT Units

**Unit List:**

INN311	Enterprise Systems
INN312	Enterprise Systems Applications
INN313	Electronic Commerce Site Development
INN320	Business Process Modelling
INN321	Business Process Management
INN322	Information Systems Consulting
INN323	Smart Services
INN330	Information Management
INN331	Management Issues for Information Professionals
INN332	Information Retrieval
INN333	Information Programs
INN334	Information Issues and Values
INN335	Information Resources
INN340	Database Design
INN341	Software Development With Oracle
INN342	Enterprise Data Mining and Data Analysis
INN343	Advanced Data Mining and Data Warehousing
INN344	Search Engine Technology
INN345	Mobile Devices
INN346	Enterprise 2.0
INN347	Web 2.0 Applications
INN350	Internet Protocols and Services
INN351	Unix Network Administration
INN352	Network Planning
INN353	Wireless and Mobile Networks
INN355	Cryptology and Protocols
INN365	Systems Programming
INN370	Software Development
INN371	Data Structures and Algorithms
INN372	Agile Software Development
INN373	Web Application Development
INN374	Enterprise Software Architecture
INN381	Modelling and Animation Techniques
INN382	Real Time Rendering Techniques
INN383	AI for Games
INN385	Multimedia Systems
INN386	Advanced Multimedia Systems
INN500	PRINCE2 (R) Project Management
INN530	Web Content Reliability
INN531	Information Services
INN532	Information Literacy Education
INN533	Information Organisation
INN540	User Experience
INN546	Major Issues in Health Technology
INN550	Computer Forensics

INN570	Internationalisation of Software
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN610	Case Studies in Business Process Management
INN650	Advanced Network Management
INN651	Security Technologies
INN652	Advanced Cryptology

Students must first seek permission from the Course Coordinator to enrol in the following:

INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN696-2	Major Project 2

## Bachelor of Information Technology (Honours) (IT28)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 017323G

**Course duration (full-time):** 1 year

**Course duration (part-time):** 2 years

**Domestic fees (indicative):** 2011: CSP \$3,878 (indicative) per semester

**International Fees (indicative):** 2011: \$11,375 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 96

**Course coordinator:** Ross Hayward

**Campus:** Gardens Point

### Overview

Through a combination of research and advanced coursework units, you can pursue specialised studies in your particular area of interest in science and technology. An honours degree builds on your undergraduate degree studies, providing further depth of knowledge and analytical skills you can apply throughout your career. It offers opportunities to cultivate research and development skills and to work on cutting-edge technology, and provides access to specialist facilities, laboratories, hardware and software. Honours is an ideal pathway for high achieving graduates to enter the doctoral program (PhD), and provides a wider range of career opportunities, including research, analytic or teaching positions.

An honours degree can be undertaken in most of the Faculty's study areas. Consult your course coordinator in second or third year to assess what projects may be available within your areas of interest.

### Why Do Honours

The honours program will expand your career options through exposure to the world of research. Honours is also the perfect pathway to an academic career through PhD studies, where you can become an independent researcher in your own right.

An honours degree signals to potential employers that you are someone with exceptional ability, motivation and commitment to your field. It gives you the chance to integrate the practical and conceptual knowledge gained through your degree. As an honours graduate, you can clearly demonstrate an ability to undertake rigorous independent research. These skills are unique to the honours program and will differentiate you from your peers in the employment market.

### Entry Requirements

Applicants must have:

- a bachelor degree from QUT or its equivalent, completed within 18 months prior to enrolment, with a minimum grade point average of 5 (on a 7-point scale) or its equivalent, **or**
- demonstrated outstanding performance in the final year of the degree, **or**

- work experience or research considered appropriate by the course coordinator.

### Course Design

The core of the honours program is a 36, 48, or 60 credit-point project (depending on your study area) that will provide students with the opportunity to learn about research by conducting a research project with an experienced researcher who acts as both supervisor and mentor. Students will learn the types of processes, creativity and analytical thinking that lead to scientific and technological advances and how to communicate such findings in a rigorous, systematic manner.

### Dean's Scholars Accelerated Honours Program

While this program has been designed primarily for high school leavers, high-achieving Information Technology undergraduate students may be invited by the Faculty to enter the program as an incentive to continue onto honours. Eligibility is based on a minimum grade point average basis.

The benefits of the program include:

- Information Technology students can undertake a concurrent enrolment in the honours program during the final semester of their undergraduate degree
- 12 credit points will be credited towards optional units in a student's undergraduate Information Technology degree on the basis of coursework studies completed in the honours program
- Information Technology students are able to complete a four-year program within three-and-a-half years
- participating students commence the Accelerated Honours Program in either first or second semester

### Career Outcomes

Information technology is an integral part of all commercial, industrial, government, social and personal activities. In the long term, your career opportunities are unbounded. Some information technology graduates retain a technical focus in roles such as web developer, database manager, network administrator, electronic commerce developer, data communications specialist, software engineer, systems programmer, computer scientist, systems analyst or programmer. Others evolve into domain experts as chief technology officers, chief information officers, managers, executives, business analysts, entrepreneurs or researchers. Graduates have the opportunity to achieve the highest levels of their profession.

### Professional Recognition

You will qualify for professional accreditation and employment in the field relevant to the specialisations chosen.

### Pathways

You have the opportunity to choose a study pathway:

- **professional pathway**— you will learn how to think strategically, identify opportunities and solve problems that we don't even know are problems yet. This pathway will enable you to acquire the business and IT skills to have a career as an IT professional within any industry.



•**research pathway**– if you are interested in shaping the future of the IT industry you can pursue a research career. You will have opportunities to work with researchers on projects and progress on to an honours degree. You will have access to world-leading researchers within the Faculty.

•**entrepreneurship pathway**– you now have the opportunity to gain the entrepreneurial skills to develop an idea into a commercial opportunity. You will be able to take advantage of the Faculty's close relationship with local technology entrepreneurs to learn from their experiences.

In 2001, the Faculty introduced an accelerated Honours program to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of the Bachelor of Information Technology which would be counted both for completion of the degree and towards Honours. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

The Dean's Scholars program was introduced in Semester 1, 2006. This program provides a scholarship for OP 1 and 2 students throughout their Bachelor and Honours degrees. Students in the program are required to maintain a high GPA to continue to qualify for the scholarship each semester. Students in the Dean's Scholars program will be able to take advantage of the Accelerated Honours program. Students in the Dean's Scholars program will have an option to follow an accelerated pathway through the Bachelor of Information Technology, allowing them to complete the Bachelor of Information Technology course plus the Bachelor of Information (Honours) course in a total of three years.

To encourage students to enter the Dean's Scholars program, domestic students have their undergraduate HECS paid by the Faculty and those proceeding to Honour's level will also receive full HECS support. International students who have completed a Year 12 education in Australia and meet the entry requirements for the program will have a third of their tuition fees paid by the Faculty for the undergraduate and Honours program.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete IT23 with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

### **Important Information**

#### **Duration**

Except in special circumstances as approved by the Dean, the requirements for an Honours degree must be completed

within two successive years following first enrolment.

### **Unsatisfactory Progress**

Failure to make satisfactory progress with either the course work component of an Honours program or with the dissertation, or both, may lead to exclusion from the program.

Unsatisfactory progress consists of:

- receiving a grade of less than 4 (or Satisfactory, where applicable) in one unit of the course work component.
- failure to make sufficient progress with the dissertation component, in the opinion of the Dean.

A student who is excluded from or otherwise fails to complete an Honours program will not normally be readmitted to that program.

### **Assessment**

The minimum grade which may be credited towards an Honours degree is 4 (or Satisfactory, where applicable). A minimum of three copies of a dissertation should be presented to the supervisor for examination. Dissertations should be temporarily bound in order to facilitate the making of any revisions and editorial changes required by the examiners before final printing and binding.

Dissertations will be examined by an examining committee appointed by the Dean and consisting of a least two examiners, one of whom may be external to the University. The supervisor of the candidate's work may be a member of the committee but may not chair the committee or act as the primary examiner.

### **Determination of Level of Honours Awards**

The Faculty Academic Board will determine the level of Honours awarded.

Honours degrees will be awarded at the following levels after account is taken of the candidate's performance in all units and appropriate weight applied to the dissertation:

Honours 1 - First Class Honours

Honours 2A - Second Class Honours, Division A

Honours 2B - Second Class Honours, Division B

Honours 3 - Third Class Honours

The level of Honours award is to be determined by guidelines, as follows:

Honours 1 - GPA 6.50-7.00, or equivalent

Honours 2A - GPA 5.50-6.49, or equivalent

Honours 2B - GPA 4.50-5.49, or equivalent

Honours 3 - GPA 4.00-4.49, or equivalent

A candidate who does not reach the standard required for Honours 3 remains with a pass degree.

### **Note:**

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



**Further Information**

For further information about this course, please contact:

Ross Hayward  
Phone: +61 7 3138 2782  
Email: enquiry.scitech@qut.edu.au

**IT28 - Bachelor of Information Technology (Honours) (2011)**

**FULL TIME**

**Year 1, Semester 1**

INN700 Introduction To Research  
INN401 Honours Dissertation 1  
Elective  
INN701 Advanced Research Topics

**Year 1, Semester 2**

INN402 Honours Dissertation 2  
INN403 Honours Dissertation 3  
INN404 Honours Dissertation 4  
Elective

**PART TIME**

**Year 1, Semester 1**

INN700 Introduction To Research  
INN401 Honours Dissertation 1

**Year 1, Semester 2**

INN402 Honours Dissertation 2  
Elective

**Year 2, Semester 1**

INN403 Honours Dissertation 3  
Elective

**Year 2, Semester 2**

INN404 Honours Dissertation 4  
Elective

Elective Units - Students should choose advanced level postgraduate units. Normally units are undertaken in the area of the student's undergraduate major. Students wishing to enrol in a unit that is not of an advanced level should contact the Course Coordinator.

INN701 enrolment - Though students are required to enrol in INN701 in their first semester of honours, the unit offers flexible enrolment through (a) a choice of modules on offer, and through (b) the option of undertaking the minimum necessary number of modules across more than one semester (see INN701 week 1 document for further details on enrolment flexibility).

Full-time students should be aware that many

electives may be offered evenings only.

**IT28 - Bachelor of Information Technology (Honours) (2010)**

**FULL TIME**

**Year 1, Semester 1**

INN700 Introduction To Research  
INN401 Honours Dissertation 1  
INN701 Advanced Research Topics  
Elective

**Year 1, Semester 2**

INN402 Honours Dissertation 2  
INN403 Honours Dissertation 3  
INN404 Honours Dissertation 4  
Elective

**PART TIME**

**Year 1, Semester 1**

INN700 Introduction To Research  
INN401 Honours Dissertation 1

**Year 1, Semester 2**

INN402 Honours Dissertation 2  
INN701 Advanced Research Topics

**Year 2, Semester 1**

INN403 Honours Dissertation 3  
Elective

**Year 2, Semester 2**

INN404  
Elective

Elective Units - Students should choose advanced level postgraduate units. Normally units are undertaken in the area of the student's undergraduate major. Students wishing to enrol in a unit that is not of an advanced level should contact the Course Coordinator.

INN701 enrolment - Though students are required to enrol in INN701 in their first semester of honours, the unit offers flexible enrolment through (a) a choice of modules on offer, and through (b) the option of undertaking the minimum necessary number of modules across more than one semester (see INN701 week 1 document for further details on enrolment flexibility).

Full-time students should be aware that many electives may be offered evenings only.

**IT28 - Bachelor of Information Technology (Honours) (2009)**

**FULL TIME**

## Year 1, Semester 1

INN700	Introduction To Research
INN401	Honours Dissertation 1
	Elective
	Elective

## Year 1, Semester 2

INN402	Honours Dissertation 2
INN403	Honours Dissertation 3
INN404	Honours Dissertation 4
	Elective

## PART TIME

## Year 1, Semester 1

INN700	Introduction To Research
INN401	Honours Dissertation 1

## Year 1, Semester 2

INN402	Honours Dissertation 2
	Elective

## Year 2, Semester 1

INN403	Honours Dissertation 3
	Elective

## Year 2, Semester 2

INN404	
	Elective
	Elective Units - Students should choose advanced level postgraduate units. Normally units are undertaken in the area of the student's undergraduate major. Students wishing to enrol in a unit that is not of an advanced level should contact the Course Coordinator.
	Full-time students should be aware that many electives may be offered evenings only.

## IT28 - Bachelor of Information Technology (Honours) Part-time

## Year 1, Semester 1

INN700	Introduction To Research
INN401	Honours Dissertation 1

## Year 1, Semester 2

INN402	Honours Dissertation 2
INN701	Advanced Research Topics

## Year 2, Semester 1

INN403	Honours Dissertation 3
	Honours Elective

## Year 2, Semester 2

INN404	Honours Dissertation 4
	Honours Elective

## IT Honours Elective Units

### Elective units

The following electives are only suggestions:

### Approved Honours Electives

INN312	Enterprise Systems Applications
INN342	Enterprise Data Mining and Data Analysis
INN272	Interaction Design
INN385	Multimedia Systems
INN313	Electronic Commerce Site Development
INN322	Information Systems Consulting
INN500	PRINCE2 (R) Project Management
INN321	Business Process Management
INN370	Software Development
INN373	Web Application Development
INN374	Enterprise Software Architecture
INN352	Network Planning
INN353	Wireless and Mobile Networks
INN381	Modelling and Animation Techniques
INN181	Introduction to Games Production

### Advanced Honours Electives

INN610	Case Studies in Business Process Management
INN386	Advanced Multimedia Systems
INN255	Security
INN355	Cryptology and Protocols
INN382	Real Time Rendering Techniques
INN652	Advanced Cryptology
INN570	Internationalisation of Software
INN650	Advanced Network Management
INN370	Software Development

## Potential Careers:

Computer Games Developer, Data Communications Specialist, Database Manager, Electronic Commerce Developer, Internet Professional, Journalist, Network Administrator, Network Manager, Programmer, Software Engineer, Systems Analyst, Systems Manager, Systems Programmer, Web Designer.

## Bachelor of Information Technology (Honours) - Accelerated Program (IT29)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 017323G

**Course duration (full-time):** 2 semesters

**Domestic fees (indicative):** 2011: CSP \$3,893 (indicative) per semester

**International Fees (indicative):** 2011: \$11,375 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 96

**Course coordinator:** Ross Hayward

**Campus:** Gardens Point

### Overview

The '**Accelerated Honours**' program has been structured to provide an incentive for high achieving IT undergraduate students to continue into the Honours Program. Benefits of this accelerated program are:

- \* you are approved to undertake a concurrent enrolment in the final semester of your IT undergraduate course, that is to say, the student may enrol in undergraduate units and Honours.

- \* 12 credit points will be credited towards Block 3 electives in your IT undergraduate course on the basis of coursework studies completed in IT29 Honours.

- \* you are able to complete a four year program within 3 1/2 years.

Through a combination of research and advanced coursework units students can pursue specialised studies in a particular area of information technology. The course offers the opportunity to develop research and development skills, work on cutting-edge technology, and have access to specialist hardware and software. As a successful Honours graduate you are eligible to start a doctoral program, and can expect to obtain a research or teaching position. A wider range of career opportunities are available.

**Please note:** tuition fees normally apply for Summer enrolment.

### Why Do Honours

The honours program will expand your career options through exposure to the world of research. Honours is also the perfect pathway to an academic career through PhD studies, where you can become an independent researcher in your own right.

An honours degree signals to potential employers that you are someone with exceptional ability, motivation and commitment to your field. It gives you the chance to integrate the practical and conceptual knowledge gained through your degree. As an honours graduate, you can clearly demonstrate an ability to undertake rigorous independent research. These skills are unique to the honours program and will differentiate you from your peers in the employment market.

### Career Outcomes

Information technology is an integral part of all commercial, industrial, government, social and personal activities. In the long term, your career opportunities are unbounded. Some information technology graduates retain a technical focus in roles such as web developer, database manager, network administrator, electronic commerce developer, data communications specialist, software engineer, systems programmer, computer scientist, systems analyst or programmer. Others evolve into domain experts as chief technology officers, chief information officers, managers, executives, business analysts, entrepreneurs or researchers. Graduates have the opportunity to achieve the highest levels of their profession.

### Professional Recognition

You will qualify for professional accreditation and employment in the field relevant to the specialisations chosen.

### Important Information

#### Assessment

The minimum grade which may be credited towards an Honours degree is 4 (or Satisfactory, where applicable). A minimum of three copies of a dissertation should be presented to the supervisor for examination. Dissertations should be temporarily bound in order to facilitate the making of any revisions and editorial changes required by the examiners before final printing and binding.

Dissertations will be examined by an examining committee appointed by the Dean and consisting of a least two examiners, one of whom may be external to the University. The supervisor of the candidate's work may be a member of the committee but may not chair the committee or act as the primary examiner.

#### Determination of Level of Honours Awards

The Faculty Academic Board will determine the level of Honours awarded.

Honours degrees will be awarded at the following levels after account is taken of the candidate's performance in all units and appropriate weight applied to the dissertation:

Honours 1 - First Class Honours

Honours 2A - Second Class Honours, Division A

Honours 2B - Second Class Honours, Division B

Honours 3 - Third Class Honours

The level of Honours award is to be determined by guidelines, as follows:

Honours 1 - GPA 6.50-7.00, or equivalent

Honours 2A - GPA 5.50-6.49, or equivalent

Honours 2B - GPA 4.50-5.49, or equivalent

Honours 3 - GPA 4.00-4.49, or equivalent

A candidate who does not reach the standard required for Honours 3 remains with a pass degree.

### Unsatisfactory Progress

Failure to make satisfactory progress with either the course work component of an Honours program or with the dissertation, or both, may lead to exclusion from the program.

Unsatisfactory progress consists of:

- receiving a grade of less than 4 (or Satisfactory, where applicable) in one unit of the course work component.
- failure to make sufficient progress with the dissertation component, in the opinion of the Dean.

A student who is excluded from or otherwise fails to complete an Honours program will not normally be readmitted to that program.

## Note:

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

## Futher Information

For further information about this course, please contact:

Ross Hayward  
Phone: +61 7 3138 2782  
Email: enquiry.scitech@qut.edu.au

## IT29 - Bachelor of Information Technology (Honours) - Accelerated Program (2011)

### Year 3, Semester 1\*

Elective

### Year 3, Semester 2

INN700 Introduction To Research  
INN401 Honours Dissertation 1  
INN701 Advanced Research Topics  
Elective

### Year 3, Semester 3

INN402 Honours Dissertation 2  
INN403 Honours Dissertation 3  
INN404 Honours Dissertation 4

\* The first semester of the Accelerated Honours Program occurs in the final semester of an undergraduate IT course (48 credit points remaining). This involves a concurrent enrolment with the undergraduate course (36 credit points enrolment) and 12 credit points Honours elective undertaken within the IT29 course.

Elective Units - Students should choose from the list of advanced level postgraduate units. Normally units are undertaken in the area of the student's undergraduate major. Students wishing to enrol in a unit other than those listed should contact the Course Coordinator. Students should note that many electives might be offered in the evenings only.

Please note: tuition fees normally apply for Summer enrolment. Dean's Scholars should contact their IT Course Coordinator for further details.

### MID YEAR ENTRY

### Year 3, Semester 2\*

Elective

### Year 3, Semester 3

INN700 Introduction To Research  
INN401 Honours Dissertation 1  
INN402 Honours Dissertation 2  
INN701 Advanced Research Topics

### Year 4, Semester 1

INN403 Honours Dissertation 3  
INN404 Honours Dissertation 4  
Elective  
Elective

\* The first semester of the Accelerated Honours Program occurs in the final semester of an undergraduate IT course (48 credit points remaining). This involves a concurrent enrolment with the undergraduate course (36 credit points enrolment) and 12 credit points Honours elective undertaken within the IT29 course.

Elective Units - Students should choose advanced level postgraduate units. Normally units are undertaken in the area of the student's undergraduate major. Students wishing to enrol in a unit that is not of an advanced level should contact the Course Coordinator. Students should note that many electives might be offered in the evenings only.

Please note: tuition fees normally apply for Summer enrolment.

## IT29 - Bachelor of Information Technology (Honours) - Accelerated Program (2010)

### Year 3, Semester 1\*

Elective

### Year 3, Semester 2

INN700 Introduction To Research  
INN401 Honours Dissertation 1  
INN701 Advanced Research Topics  
Elective

### Year 3, Semester 3

INN402 Honours Dissertation 2  
INN403 Honours Dissertation 3  
INN404 Honours Dissertation 4

\* The first semester of the Accelerated Honours Program occurs in the final semester

of an undergraduate IT course (48 credit points remaining). This involves a concurrent enrolment with the undergraduate course (36 credit points enrolment) and 12 credit points Honours elective undertaken within the IT29 course.

Please note: tuition fees normally apply for Summer enrolment. Deans Scholars should contact their IT Course Coordinator for further details.

**Elective Units** - Students should choose from the list of advanced level postgraduate units. Normally units are undertaken in the area of the student's undergraduate major. Students wishing to enrol in a unit other than those listed should contact the Course Coordinator. Students should note that many electives might be offered in the evenings only.

**INN701 enrolment** - Though students are required to enrol in INN701 in their first semester of honours, the unit offers flexible enrolment through (a) a choice of modules on offer, and through (b) the option of undertaking the minimum necessary number of modules across more than one semester (see INN701 week 1 document for further details on enrolment flexibility).

#### MID YEAR ENTRY

##### Year 3, Semester 2\*

Elective

##### Year 3, Semester 3

INN700	Introduction To Research
INN401	Honours Dissertation 1
INN402	Honours Dissertation 2
INN701	Advanced Research Topics

##### Year 4, Semester 1

INN403	Honours Dissertation 3
INN404	Honours Dissertation 4
	Elective
	Elective

\* The first semester of the Accelerated Honours Program occurs in the final semester of an undergraduate IT course (48 credit points remaining). This involves a concurrent enrolment with the undergraduate course (36 credit points enrolment) and 12 credit points Honours elective undertaken within the IT29 course.

**Elective Units** - Students should choose advanced level postgraduate units. Normally units are undertaken in the area of the student's undergraduate major. Students wishing to enrol in a unit that is not of an advanced level should contact the Course Coordinator. Students should note that many electives might be offered in the evenings only.

Please note: tuition fees normally apply for Summer enrolment.

**INN701 enrolment** - Though students are required to enrol in INN701 in their first

semester of honours, the unit offers flexible enrolment through (a) a choice of modules on offer, and through (b) the option of undertaking the minimum necessary number of modules across more than one semester (see INN701 week 1 document for further details on enrolment flexibility).

#### **IT29 - Bachelor of Information Technology (Honours) - Accelerated Program (2009)**

##### Year 3, Semester 1\*

Elective

##### Year 3, Semester 2

INN700	Introduction To Research
INN401	Honours Dissertation 1
	Elective
	Elective

##### Year 3, Semester 3

INN402	Honours Dissertation 2
INN403	Honours Dissertation 3
INN404	Honours Dissertation 4

\* The first semester of the Accelerated Honours Program occurs in the final semester of an undergraduate IT course (48 credit points remaining). This involves a concurrent enrolment with the undergraduate course (36 credit points enrolment) and 12 credit points Honours elective undertaken within the IT29 course.

Please note: tuition fees normally apply for Summer enrolment. Deans Scholars should contact their IT Course Coordinator for further details.

**Elective Units** - Students should choose from the list of advanced level postgraduate units. Normally units are undertaken in the area of the student's undergraduate major. Students wishing to enrol in a unit other than those listed should contact the Course Coordinator. Students should note that many electives might be offered in the evenings only.

#### MID YEAR ENTRY

##### Year 3, Semester 2\*

Elective

##### Year 3, Semester 3

INN700	Introduction To Research
INN401	Honours Dissertation 1
INN402	Honours Dissertation 2

##### Year 4, Semester 1

INN403	Honours Dissertation 3
INN404	Honours Dissertation 4
	Elective
	Elective



\* The first semester of the Accelerated Honours Program occurs in the final semester of an undergraduate IT course (48 credit points remaining). This involves a concurrent enrolment with the undergraduate course (36 credit points enrolment) and 12 credit points Honours elective undertaken within the IT29 course.

Elective Units - Students should choose advanced level postgraduate units. Normally units are undertaken in the area of the student's undergraduate major. Students wishing to enrol in a unit that is not of an advanced level should contact the Course Coordinator. Students should note that many electives might be offered in the evenings only.

Please note: tuition fees normally apply for Summer enrolment.

### IT Honours Elective Units

#### Elective units

The following electives are only suggestions:

#### Approved Honours Electives

INN312	Enterprise Systems Applications
INN342	Enterprise Data Mining and Data Analysis
INN272	Interaction Design
INN385	Multimedia Systems
INN313	Electronic Commerce Site Development
INN322	Information Systems Consulting
INN500	PRINCE2 (R) Project Management
INN321	Business Process Management
INN370	Software Development
INN373	Web Application Development
INN374	Enterprise Software Architecture
INN352	Network Planning
INN353	Wireless and Mobile Networks
INN381	Modelling and Animation Techniques
INN181	Introduction to Games Production

#### Advanced Honours Electives

INN610	Case Studies in Business Process Management
INN386	Advanced Multimedia Systems
INN255	Security
INN355	Cryptology and Protocols
INN382	Real Time Rendering Techniques
INN652	Advanced Cryptology
INN570	Internationalisation of Software
INN650	Advanced Network Management
INN370	Software Development

### Bachelor of Information Technology (Honours) - Accelerated Program Mid-Year entry

#### Semester 2, 2010

Honours Elective

Final Semester of IT22, IT23 or IT Double Degree

#### Summer semester, 2010

INN700	Introduction To Research
INN401	Honours Dissertation 1
INN402	Honours Dissertation 2

#### Semester 1, 2011

INN403	Honours Dissertation 3
INN404	Honours Dissertation 4
	Honours Elective
	Honours Elective

#### Potential Careers:

Academic, Business Analyst, Computer Games Developer, Computer Salesperson/Marketer, Computer Systems Engineer, Data Communications Specialist, Database Manager, Electrical and Computer Engineer, Information Officer, Information Security Specialist, Internet Professional, Multimedia Designer, Network Administrator, Network Manager, Systems Analyst, Systems Manager, Systems Programmer, Systems Trainer.

## **Graduate Diploma in Information Technology (IT Graduates) (IT35)**

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 018771J

**Course duration (full-time):** 1 years

**Course duration (part-time):** 2 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,500 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Total credit points:** 96

**Course coordinator:** Dr Ernest Foo

**Campus:** Gardens Point

### **Course Overview**

This program is designed for information technology graduates who wish to update and upgrade their knowledge and skills for purposes of further career development. The course assists IT graduates to acquire specialised knowledge in an area of information technology and/or widen their knowledge into new areas of information technology.

### **Course is under review**

From semester one, 2009 this course will not be available for commencing students. IT35 will only be available for continuing students. New students - please refer to IT43. Please contact enquiry.scitech@qut.edu.au for any enquiries

### **Entry Requirements**

Applicants for either IT35 or IT40 must have:

a) a bachelors degree in Information Technology with a grade point average of at least 4.5 (7-point scale)

OR

b) provide other evidence of such qualifications and significant full-time IT work experience, as will satisfy the Dean of Faculty that the applicant possesses the capacity to pursue the course of study

Applicants who wish to gain entry into this course, based on IT work experience, are encouraged to complete a Graduate Equivalency Proforma .

### **Course Structure**

Students who commenced Semester 2, 2006 or later

To graduate from the Master of Information Technology, students are required to complete 12 units, consisting of:

- 1 x Compulsory Unit – INN500 IT Project Management
- A minimum of 6 x Advanced Level 1 Units (including INN500)
- A minimum of 1 x Advanced Level 2 Units
- A maximum of 3 x Postgraduate level Elective Units selected from outside the Faculty, in consultation with the Course Coordinator

To exit the Masters course with a Graduate Diploma in Information Technology, students are required to complete

8 units, consisting of:

- 1 x Compulsory Unit – INN500 IT Project Management
- A minimum of 5 x Advanced Level 1 Units (including INN500)
- A minimum of 1 x Advanced Level 2 Units

Students who commenced Semester 1, 2004 and prior to Semester 2, 2006

To graduate from the Master of Information Technology, students are required to complete 12 units, consisting of:

- A minimum of 6 x Advanced Level 1 Units
- A minimum of 1 x Advanced Level 2 Units

To exit the Masters course with a Graduate Diploma in Information Technology, students are required to have completed 8 units, consisting of:

- A minimum of 5 x Advanced Level 1 Units
- A minimum of 1 x Advanced Level 2 Units

### **Articulation**

#### **Moving Between Courses**

Domestic Students currently enrolled in the Graduate Diploma in Information Technology (IT35) or the Graduate Certificate (IT89, IT90, IT92, IT93, IT94, IT95, IT96, IT98, IT99), are in nested program courses. Upon successful completion of your course, domestic students will be invited to continue with the next stage of the program in the following teaching period. An email will be sent you student email account inviting you continue. If you accept the option to articulate immediately, you will not be required to complete an application for academic credit as units and grades achieved in the lower award will be transferred to the new course.

Students in the Masters course (IT40) wishing to exit with the Graduate Diploma (IT35) are required to submit an Application to Graduate Early with an Approved Exit Course (SRX) Form. These forms must be submitted by Week 13 in the semester you expect to meet the requirements for either the Graduate Diploma or Graduate Certificate.

International students wishing to change courses should consult International Student Business Services.

### **Unit Incompatibility/Translation Information**

Details on the translation and incompatibility of old and new units is located here:

Postgraduate 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.

### **Further Information**

For further information about this course, please contact:

Ernest Foo

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

## IT35/40/48 v1 Master of Information Technology (IT Graduates)

### Course Structure 2009

From semester one, 2009 this course will not be available for commencing students. IT35 will only be available for continuing students. Please contact enquiry.scitech@qut.edu.au for any enquiries.

### Compulsory Unit\*

INN500 PRINCE2 (R) Project Management  
Only for students who commenced Semester 2, 2006 or later

### Advanced Level 1 Units

INN272 Interaction Design  
INN280 Fundamentals of Game Design  
INN281 Advanced Game Design  
INN313 Electronic Commerce Site Development  
INN312 Enterprise Systems Applications  
INN321 Business Process Management  
INN322 Information Systems Consulting  
INN342 Enterprise Data Mining and Data Analysis  
INN385 Multimedia Systems  
INN500 PRINCE2 (R) Project Management  
INN371 Data Structures and Algorithms  
INN365 Systems Programming  
INN370 Software Development  
INS452 CCNP1: Building Scalable Internetworks  
INN352 Network Planning  
INN373 Web Application Development  
INS454 CCNP3: Building Multi Layered Switched Networks  
INN353 Wireless and Mobile Networks  
INN374 Enterprise Software Architecture  
INN381 Modelling and Animation Techniques  
INS455 CCNP4: Optimising Converged Networks  
INN181 Introduction to Games Production  
INS456 Voice Over IP 1  
INS453 CCNP 2: Building Multi Layered Switched Networks  
INS457 Voice Over IP 2  
Project - 12 and 24 credit points (See Project Units for codes)

### Advanced Level 2 Units

INN700 Introduction To Research  
INN610 Case Studies in Business Process Management

INN386 Advanced Multimedia Systems  
INN382 Real Time Rendering Techniques  
INN652 Advanced Cryptology  
INN570 Internationalisation of Software  
INN650 Advanced Network Management  
INN600 Advanced Readings 1  
INN601 Advanced Readings 2  
INN602 Advanced Readings 3  
INN605 Advanced Research 1  
INN606 Advanced Research 2  
INN607 Advanced Research 3  
INN701 Advanced Research Topics

### Project Units

INN690 Minor Project 1  
INN691 Minor Project 2  
INN692 Minor Project 3  
INN693 Project  
INN694-1 Project 1  
INN694-2 Project  
INN695 Major Project  
INN696-1 Major Project 1  
INN696-2 Major Project 2

### Intermediate Level Units

With the approval of the Course Coordinator, students seeking skills in a new IT specialisation can select up to two (2) units from the following list of units.

INN271 The Web  
INS450 CCNA 1 and 2 Network Fundamentals and Routing  
INS451 CCNA 3 and 4 Lan Switching  
INN341 Software Development With Oracle  
INN311 Enterprise Systems  
INN340 Database Design  
INN330 Information Management  
INN335 Information Resources  
INN372 Agile Software Development  
INN350 Internet Protocols and Services  
INN351 Unix Network Administration  
INN255 Security  
INN355 Cryptology and Protocols  
INN370 Software Development

## IT89 - Graduate Certificate in IT (Wireless Games Technology)

### Four (4) units to be selected from the following

INN272 Interaction Design  
INN350 Internet Protocols and Services

- INN353 Wireless and Mobile Networks  
INN381 Modelling and Animation Techniques

## IT90 Graduate Certificate in IT (Computer Networks)

### 4 Units to be completed

- INN350 Internet Protocols and Services  
INN351 Unix Network Administration  
INN353 Wireless and Mobile Networks  
INN650 Advanced Network Management

## IT92 Grad Cert in Information Technology (Information Security)

### Four (4) units to be completed

- INN690 Minor Project 1  
INN255 Security  
INN355 Cryptology and Protocols  
INN652 Advanced Cryptology

## IT93 - Graduate Certificate in IT (Enterprise Wide Software)

### Four (4) units to be completed

- INN311 Enterprise Systems  
INN312 Enterprise Systems Applications  
INN610 Case Studies in Business Process Management  
INN321 Business Process Management

## IT94 - Graduate Certificate in IT (Electronic Commerce)

### Four (4) units to be selected from the following

- INN271 The Web  
INN340 Database Design  
INN313 Electronic Commerce Site Development  
INN255 Security

## IT95 - Graduate Certificate in IT (Project)

### 48 credit points to be completed either full time or part-time

- INN695 Major Project  
INN696-1 Major Project 1  
INN696-2 Major Project 2  
IT Elective

## IT96 - Graduate Certificate in IT (Information Technology Management)

### Four (4) units to be completed

- INN221 Technology Management  
INN322 Information Systems Consulting  
INN330 Information Management  
INN500 PRINCE2 (R) Project Management

## IT98 - Graduate Certificate in IT (Multimedia)

### Four (4) units to be selected from the following

- INN271 The Web  
INN272 Interaction Design  
INN385 Multimedia Systems  
INN386 Advanced Multimedia Systems

## IT99 - Graduate Certificate in IT (Component Software and Web Services)

### Four (4) units to be completed

- INN372 Agile Software Development  
INN370 Software Development  
INN373 Web Application Development  
INN374 Enterprise Software Architecture

### Potential Careers:

Business Analyst, Data Communications Specialist, Database Manager, Electronic Commerce Developer, Multimedia Designer, Network Administrator, Network Manager, Programmer, Software Engineer, Systems Analyst, Systems Manager, Systems Programmer.

## Graduate Diploma In Information Technology (IT37)

**Year offered:** 2011

**Admissions:** No

**Course duration (full-time):** 1 year

**Course duration (part-time):** 2 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$12,750 (indicative) per semester

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ernest Foo

**Campus:** Gardens Point

### Course Overview

Information technology is now firmly ensconced in society with all the other business practices that constitute modern organisations. This Graduate Diploma course has interfaculty contributions from the Faculties of IT, Business, Creative Industries and Law, matching closely to their relevant IT research areas. Recognition of the burgeoning of specialised areas within the Information Industries is reflected in the structure of this course through ten different majors:

- No Major
- Software Architecture
- Network Management
- Enterprise Systems
- Games Production
- Games Design
- Security
- Library and Information Science
- Information Management
- Digital Environments
- Executive Information Practice

The Graduate Diploma in Information Technology IT37 is an exit only option. However it is nested within the Master of Information Technology IT43 and Master of Information Technology Advanced IT44 courses. Students who complete the Graduate Diploma may return to complete the Masters at a later date and claim credit for all units completed in the Graduate Diploma.

The Graduate Diploma does not provide a pathway to follow on with a research degree (Research Masters, Professional Doctorate or PhD).

### Course Structure

Students are required to complete 96 credit points of units. All students are required to complete the specified core unit in IT Project Management. This course may be taken over two semesters full-time or four semesters part-time.

### Further Information

For further information about this course, please contact:

Dr Ross Hayward

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

### IT37 - Graduate Diploma In Information Technology

#### Core

INN500 PRINCE2 (R) Project Management

#### Major Study Areas

Students choose one of the following majors (see Major option list):

No Major

Software Architecture

Network Management

Enterprise Systems

Games Production

Games Design

Security

Executive Information Practice

Library and Information Science

Information Management

Digital Environments

### IT37 - Major Options

A Major block has 84 credit points plus a 48 credit point Elective block

#### Information Technology

DO \*Any IT postgraduate units not in the "Basic Unit List", such that at least one unit is of the form: INN5xx, INN6xx or INN7xx and the total unit set equals 84 credit points

#### Software Architecture

DO \*All of these units:

INN371 Data Structures and Algorithms

INN372 Agile Software Development

INN374 Enterprise Software Architecture

INN570 Internationalisation of Software

PLUS \*Units to 36 credit points from:

INN700 Introduction To Research

INN271 The Web

INN313 Electronic Commerce Site Development

INN373 Web Application Development

INN365 Systems Programming

INN600 Advanced Readings 1

INN601 Advanced Readings 2

INN602 Advanced Readings 3

INN605 Advanced Research 1

INN606 Advanced Research 2

INN607 Advanced Research 3



# FACULTY OF SCIENCE AND TECHNOLOGY

## Enterprise Systems

DO	*All of these units:
INN311	Enterprise Systems
INN312	Enterprise Systems Applications
INN374	Enterprise Software Architecture
INN610	Case Studies in Business Process Management
PLUS	*Units to 36 credit points from:
INN700	Introduction To Research
INN340	Database Design
INN342	Enterprise Data Mining and Data Analysis
INN341	Software Development With Oracle
INN321	Business Process Management
INN220	Business Analysis
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3

## Network Management

DO	*All of these units:
INN350	Internet Protocols and Services
INN351	Unix Network Administration
INN352	Network Planning
INN650	Advanced Network Management
PLUS	*Units to 36 credit points from:
INN700	Introduction To Research
INN353	Wireless and Mobile Networks
INN255	Security
INN651	Security Technologies
INN355	Cryptology and Protocols
INN652	Advanced Cryptology
INN550	Computer Forensics
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INS452	CCNP1: Building Scalable Internetworks
INS453	CCNP 2: Implementing Secure Network Coverage
INS454	CCNP3: Building Multi Layered Switched Networks

INS455	CCNP4: Optimising Converged Networks
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## Games Production

DO	*All of these units:
INN180	Computer Games Studies
INN181	Introduction to Games Production
INN600	Advanced Readings 1
INN601	Advanced Readings 2
PLUS	*Units to 36 credit points from:
INN220	Business Analysis
INN321	Business Process Management
INN330	Information Management
INN311	Enterprise Systems
INN700	Introduction To Research

## Games Design

DO	*All of these units:
INN180	Computer Games Studies
INN280	Fundamentals of Game Design
INN281	Advanced Game Design
INN272	Interaction Design
PLUS	*Units to 36 credit points from:
INN181	Introduction to Games Production
INN385	Multimedia Systems
INN386	Advanced Multimedia Systems
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN700	Introduction To Research
KIB201	Concept Development for Game Design and Interactive Media
KIB202	Enabling Immersion
INN282	Games Level Design

## Security

DO	*All of these units:
INN255	Security
INN651	Security Technologies
PLUS	*Units to 60 credit points from:
INN700	Introduction To Research
INN355	Cryptology and Protocols
INN652	Advanced Cryptology
INN550	Computer Forensics
MGN524	Special Topic in Management 1
AYN410	Business Law and Ethics
MGN433	Managing High-Performance Organisations
MGN423	Contemporary Strategic Analysis
GSN440	Risk Management 1
JSN106	Analytical Methods of Intelligence
MAN778	Applications of Discrete Mathematics

# FACULTY OF SCIENCE AND TECHNOLOGY

LWN139	Privacy Law
LWN125	Electronic Commerce Law
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN696-2	Major Project 2
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3

## Library and Information Science

DO	Units to 84 credit points:
INN332	Information Retrieval
INN531	Information Services
INN533	Information Organisation
INN333	Information Programs
INN530	Web Content Reliability
INN532	Information Literacy Education
INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice
INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
INN330	Information Management
INN331	Management Issues for Information Professionals

## Information Management

DO	*All of these units:
INN330	Information Management
SPN637	Managing Knowledge in Learning Organisations
INN122	Organisational Databases
INN255	Security
INN335	Information Resources
INN220	Business Analysis
PLUS	*One of these units:
INN700	Introduction To Research
INN334	Information Issues and Values
INN540	User Experience

## Executive Information Practice

DO	*All of these units:
INN630	Evidence Based Practice
INN631	Executive Coaching
INN690	Minor Project 1
INN334	Information Issues and Values
PLUS	*Six of these units:
GSN401	Managing in the Global Business Environment
GSN403	Understanding Data
GSN404	Financial Statements Analysis
GSN405	Strategic Management
GSN406	Human Resource Management Issues
GSN407	Business Communication
GSN408	Fundamentals of Marketing Management
GSN409	Organisational Behaviour 1
GSN410	Entrepreneurship
GSN412	Business Law 1
GSN413	Financial Management 1
GSN415	Understanding Leadership
GSN491	Economics in Business 1

## Digital Environments

DO	*All of these units:
INN345	Mobile Devices
INN346	Enterprise 2.0
INN347	Web 2.0 Applications
INN540	User Experience
INN690	Minor Project 1
KCP408	Exploring New Media Worlds
PLUS	*IT postgraduate units to 12 credit points, not in the "Basic Unit List".

## Basic Unit List

INN101	Impact of IT
INN120	Corporate Systems
INN122	Organisational Databases
INN124	Information Systems Development
INN180	Computer Games Studies
INN210	Databases
INN220	Business Analysis
INN221	Technology Management
INN251	Networks
INN255	Security
INN270	Programming
INN271	The Web
INN272	Interaction Design

## **Graduate Diploma in Information Technology (Non-IT Graduates) (IT38)**

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 018771J

**Course duration (full-time):** 2 semesters

**Course duration (part-time):** 4 semesters

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February, July and November

**International Entry:** February, July and November

**Total credit points:** 96

**Course coordinator:** Dr Ernest Foo

**Campus:** Gardens Point

Administrator, Network Manager, Programmer, Software Engineer, Systems Analyst, Systems Manager, Systems Programmer.

### **Course update**

From 2009 this course will no longer be offered for commencing students and will only be available to continuing students.

Commencing students please refer to IT43. Please contact enquiry.scitech@qut.edu.au for any enquiries or call 3138 2782.

### **Course Overview**

This program is designed for non-IT graduates who wish to broaden career opportunities by gaining a postgraduate IT qualification. The programs allow students to specialise in a wide range of areas including software engineering, data communications and information systems.

These programs aim to build on non-IT skills acquired in previous study, such as critical and analytical skills; as well as provide an IT curriculum with depth and breadth, from introductory to advanced level.

Students are encouraged to focus on those parts of the employment spectrum where cross-disciplinary qualifications are most appreciated.

### **Course Structure**

To graduate with a Graduate Diploma in Information Technology (IT38), students are required to have completed 8 units, including:

1 x Compulsory Unit - INN500 IT Project Management

A Minimum of 3 x Basic Level Units

4 x Chosen from Intermediate or Advanced Level 1 Units

### **Further Information**

For further information about this course, please contact:

Ernest Foo

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

### **Potential Careers:**

Business Analyst, Data Communications Specialist, Database Manager, Electronic Commerce Developer, Internet Professional, Multimedia Designer, Network

## **Master of Information Technology (IT Graduates) (IT40)**

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 003776E

**Course duration (full-time):** 3 semesters

**Course duration (part-time):** 6 semesters

**Domestic fees (indicative):** 2011: Full fee tuition \$7,500 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Total credit points:** 144

**Course coordinator:** Dr Ernest Foo

**Campus:** Gardens Point

### **Course Overview**

The Master of Information Technology — with associated nested graduate diploma and graduate certificates — can be tailored for information technology graduates who wish to revise, update or extend their IT skills and knowledge.

Students may take the Master of Information Technology as a broad-based qualification or choose to specialise in a particular area such as networks, security, enterprise systems, software development, IT management or games development.

With multiple specialisations now emerging in IT, applicants with existing IT qualifications may wish to study advanced units in their own specialisation, and/or move into an entirely different study of IT.

IT graduates who are unsure about enrolling in a full Masters program may like to enrol in a Graduate Certificate or Graduate Diploma which can then be used to articulate into the Master of Information Technology (IT40).

### **Course Update**

From semester one, 2009 this course will not be available for commencing students. IT40 will only be available for continuing students. New students - please refer to IT43. Please contact enquiry.scitech@qut.edu.au for any enquiries.

### **Entry Requirements**

A bachelor degree majoring in information technology with a grade point average of at least 4.5 (on a 7-point scale) **OR** evidence of work experience and/or training equivalent to an IT major.

### **Course Structure**

Students who commenced Semester 2, 2006 or later

To graduate from the Master of Information Technology, students are required to complete 12 units, consisting of:

- 1 x Compulsory Unit – INN500 IT Project Management
- A minimum of 6 x Advanced Level 1 Units (including INN500)
- A minimum of 1 x Advanced Level 2 Units
- A maximum of 3 x Postgraduate level Elective Units

selected from outside the Faculty, in consultation with the Course Coordinator

To exit the Masters course with a Graduate Diploma in Information Technology, students are required to complete 8 units, consisting of:

- 1 x Compulsory Unit – INN500 IT Project Management
- A minimum of 5 x Advanced Level 1 Units (including INN500)
- A minimum of 1 x Advanced Level 2 Units

Students who commenced Semester 1, 2004 and prior to Semester 2, 2006

To graduate from the Master of Information Technology, students are required to complete 12 units, consisting of:

- A minimum of 6 x Advanced Level 1 Units
- A minimum of 1 x Advanced Level 2 Units

To exit the Masters course with a Graduate Diploma in Information Technology, students are required to have completed 8 units, consisting of:

- A minimum of 5 x Advanced Level 1 Units
- A minimum of 1 x Advanced Level 2 Units

### **Unit Incompatibility/Translation Information**

Details on the translation and incompatibility of old and new units is located here:

Postgraduate 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.

### **Further Information**

For further information about this course, please contact:

Dr Ernest Foo

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

## **IT35/40/48 v1 Master of Information Technology (IT Graduates)**

### **Course Structure 2009**

From semester one, 2009 this course will not be available for commencing students. IT35 will only be available for continuing students. Please contact enquiry.scitech@qut.edu.au for any enquiries.

### **Compulsory Unit\***

INN500 PRINCE2 (R) Project Management

Only for students who commenced Semester 2, 2006 or later

### **Advanced Level 1 Units**

INN272 Interaction Design

INN280 Fundamentals of Game Design

# FACULTY OF SCIENCE AND TECHNOLOGY

INN281	Advanced Game Design
INN313	Electronic Commerce Site Development
INN312	Enterprise Systems Applications
INN321	Business Process Management
INN322	Information Systems Consulting
INN342	Enterprise Data Mining and Data Analysis
INN385	Multimedia Systems
INN500	PRINCE2 (R) Project Management
INN371	Data Structures and Algorithms
INN365	Systems Programming
INN370	Software Development
INS452	CCNP1: Building Scalable Internetworks
INN352	Network Planning
INN373	Web Application Development
INS454	CCNP3: Building Multi Layered Switched Networks
INN353	Wireless and Mobile Networks
INN374	Enterprise Software Architecture
INN381	Modelling and Animation Techniques
INS455	CCNP4: Optimising Converged Networks
INN181	Introduction to Games Production
INS456	Voice Over IP 1
INS453	CCNP 2: Building Multi Layered Switched Networks
INS457	Voice Over IP 2
Project - 12 and 24 credit points (See Project Units for codes)	

## Advanced Level 2 Units

INN700	Introduction To Research
INN610	Case Studies in Business Process Management
INN386	Advanced Multimedia Systems
INN382	Real Time Rendering Techniques
INN652	Advanced Cryptology
INN570	Internationalisation of Software
INN650	Advanced Network Management
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN701	Advanced Research Topics

## Project Units

INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project

INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN696-2	Major Project 2

## Intermediate Level Units

With the approval of the Course Coordinator, students seeking skills in a new IT specialisation can select up to two (2) units from the following list of units.

INN271	The Web
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INN341	Software Development With Oracle
INN311	Enterprise Systems
INN340	Database Design
INN330	Information Management
INN335	Information Resources
INN372	Agile Software Development
INN350	Internet Protocols and Services
INN351	Unix Network Administration
INN255	Security
INN355	Cryptology and Protocols
INN370	Software Development

## IT89 - Graduate Certificate in IT (Wireless Games Technology)

### Four (4) units to be selected from the following

INN272	Interaction Design
INN350	Internet Protocols and Services
INN353	Wireless and Mobile Networks
INN381	Modelling and Animation Techniques

## IT90 Graduate Certificate in IT (Computer Networks)

### 4 Units to be completed

INN350	Internet Protocols and Services
INN351	Unix Network Administration
INN353	Wireless and Mobile Networks
INN650	Advanced Network Management

## IT92 Grad Cert in Information Technology (Information Security)

### Four (4) units to be completed

INN690	Minor Project 1
INN255	Security
INN355	Cryptology and Protocols
INN652	Advanced Cryptology

## IT93 - Graduate Certificate in IT (Enterprise Wide



**Software)**

Administrator, Network Manager, Programmer, Software Engineer, Systems Analyst, Systems Manager, Systems Programmer.

Four (4) units to be completed

INN311	Enterprise Systems
INN312	Enterprise Systems Applications
INN610	Case Studies in Business Process Management
INN321	Business Process Management

**IT94 - Graduate Certificate in IT (Electronic Commerce)**

Four (4) units to be selected from the following

INN271	The Web
INN340	Database Design
INN313	Electronic Commerce Site Development
INN255	Security

**IT95 - Graduate Certificate in IT (Project)**

48 credit points to be completed either full time or part-time

INN695	Major Project
INN696-1	Major Project 1
INN696-2	Major Project 2
	IT Elective

**IT96 - Graduate Certificate in IT (Information Technology Management)**

Four (4) units to be completed

INN221	Technology Management
INN322	Information Systems Consulting
INN330	Information Management
INN500	PRINCE2 (R) Project Management

**IT98 - Graduate Certificate in IT (Multimedia)**

Four (4) units to be selected from the following

INN271	The Web
INN272	Interaction Design
INN385	Multimedia Systems
INN386	Advanced Multimedia Systems

**IT99 - Graduate Certificate in IT (Component Software and Web Services)**

Four (4) units to be completed

INN372	Agile Software Development
INN370	Software Development
INN373	Web Application Development
INN374	Enterprise Software Architecture

**Potential Careers:**

Business Analyst, Data Communications Specialist, Database Manager, Electronic Commerce Developer, Internet Professional, Multimedia Designer, Network

## Master of Information Technology (IT43)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 003776E

**Course duration (full-time):** 1.5 years

**Course duration (part-time):** 3 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Discipline coordinator:** Dr Yue Xu

**Campus:** Gardens Point

### IT43 - Master of Information Technology (Null Major Option)

#### Core

INN500 PRINCE2 (R) Project Management

#### Electives

\*Select one from: Any IT postgraduate unit starting INN5xx, INN6xx or INN7xx

Plus

\*Select any 6 (total of 72cp) postgraduate IT units not in the Basic Unit List.

#### Basic Unit List

INN101 Impact of IT  
 INN120 Corporate Systems  
 INN122 Organisational Databases  
 INN124 Information Systems Development  
 INN180 Computer Games Studies  
 INN210 Databases  
 INN220 Business Analysis  
 INN221 Technology Management  
 INN251 Networks  
 INN255 Security  
 INN270 Programming  
 INN271 The Web  
 INN272 Interaction Design

#### Postgraduate IT Units

##### Unit List:

INN101 Impact of IT  
 INN120 Corporate Systems  
 INN122 Organisational Databases  
 INN124 Information Systems Development

INN180 Computer Games Studies  
 INN181 Introduction to Games Production  
 INN210 Databases  
 INN220 Business Analysis  
 INN221 Technology Management  
 INN250 Foundations of Computer Science  
 INN251 Networks  
 INN255 Security  
 INN270 Programming  
 INN271 The Web  
 INN272 Interaction Design  
 INN280 Fundamentals of Game Design  
 INN311 Enterprise Systems  
 INN312 Enterprise Systems Applications  
 INN313 Electronic Commerce Site Development  
 INN320 Business Process Modelling  
 INN321 Business Process Management  
 INN322 Information Systems Consulting  
 INN330 Information Management  
 INN331 Management Issues for Information Professionals  
 INN332 Information Retrieval  
 INN333 Information Programs  
 INN335 Information Resources  
 INN340 Database Design  
 INN341 Software Development With Oracle  
 INN342 Enterprise Data Mining and Data Analysis  
 INN343 Advanced Data Mining and Data Warehousing  
 INN344 Search Engine Technology  
 INN345 Mobile Devices  
 INN346 Enterprise 2.0  
 INN347 Web 2.0 Applications  
 INN350 Internet Protocols and Services  
 INN351 Unix Network Administration  
 INN352 Network Planning  
 INN353 Wireless and Mobile Networks  
 INN355 Cryptology and Protocols  
 INN365 Systems Programming  
 INN370 Software Development  
 INN371 Data Structures and Algorithms  
 INN372 Agile Software Development  
 INN373 Web Application Development  
 INN374 Enterprise Software Architecture  
 INN381 Modelling and Animation Techniques  
 INN382 Real Time Rendering Techniques  
 INN385 Multimedia Systems  
 INN386 Advanced Multimedia Systems  
 INN500 PRINCE2 (R) Project Management

INN530	Web Content Reliability
INN531	Information Services
INN532	Information Literacy Education
INN533	Information Organisation
INN540	User Experience
INN550	Computer Forensics
INN570	Internationalisation of Software
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN610	Case Studies in Business Process Management
INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice
INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
INN650	Advanced Network Management
INN651	Security Technologies
INN652	Advanced Cryptology
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN700	Introduction To Research
INN696-2	Major Project 2
INN701	Advanced Research Topics
INN281	Advanced Game Design
INS040	Professional Experience (Postgraduate)
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INS452	CCNP1: Building Scalable Internetworks
INS454	CCNP3: Building Multi Layered Switched Networks
INS456	Voice Over IP 1
INS457	CISCO VOIP

## **Master of Information Technology (IT43)**

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 003776E

**Course duration (full-time):** 1.5 years

**Course duration (part-time):** 3 years

**Domestic fees (indicative):** Refer to majors

**International Fees (indicative):** Refer to majors

**Domestic Entry:** February and July (LIS part-time only in July)

**International Entry:** February and July (LIS part-time only in July)

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### **Course Overview**

Information technology is now firmly ensconced in society with all the other business practices that constitute modern organisations. This Master of Information Technology course has interfaculty contributions from the Faculties of Science and Technology, Business, Creative Industries and Law, matching closely to their relevant IT research areas. Recognition of the burgeoning of specialised areas within the Information Industries is reflected in the structure of this course through ten different majors other than the "No Major" option:

- Software Architecture
- Network Management
- Enterprise Systems
- Games Production
- Games Design
- Security
- Library and Information Science (Multi-modal)
- Information Management
- Digital Environments
- Executive Information Practice

The structure of this course is designed so that a student does not have to decide on a major until after the first semester. Elective and core units may be selected first. Students must generally complete the core unit and seven units from within their major. The only exception to this structure is in the Library and Information Science major.

Students who complete the Master of Information Technology (IT43) may return to complete the Master of Information Technology (Advanced) (IT44) at a later date and claim credit for all units completed in IT43.

### **Electives:**

Students can generally select up to 4 electives; again, the exception is in the Library and Information Science major, where students can select no more than two electives.

Non-cognate students are recommended to select three Basic Elective Units as their electives.

Students wishing to use the Masters program as a pathway to a PhD program within QUT are recommended to select 4

advanced research or project units as their electives. These students are also advised to enrol in INN700 Introduction to Research as part of their major.

It is possible, for students who wish, to complete dual Master degrees. Students can receive up to four units of credit for a previous Masters degree as part of their elective unit block. Thus, they are only required to complete the major and core. Students may then receive their Masters degree from the Faculty of Science and Technology in two semesters.

Students undertaking units from the MBA program (GSN units) in the Graduate School of Business (GSB) must meet the MBA entry requirements. Please see the GSB website for further information.

The Library and Information Science major is offered in multimodal delivery allowing students to complete their studies either face-to-face or online.

### **Entry requirements**

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)

OR

- Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

**Domestic students:**

Domestic students who have completed an undergraduate degree (in any field) with a minimum grade point average (GPA) of at least 4.5 (on a 7-point scale) are eligible for the programs described in this proposal.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

**International Students:**

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

### Special Entry Requirements

Library and Information Science:

- a bachelor degree in any discipline other than library and information science with a grade point average of at least 4.5 (On a 7 points scale).

Executive information practice:

- has core units from the MBA and as such must also meet the MBA entry requirements:  
 o Demonstrate competency in the English language  
 o Have a GMAT score of at least 500  
 o Have at least three years work experience  
 o At least 10 points from at least two of the three categories - prior work experience, academic achievement and management aptitude  
 o For further information please see <http://www.bus.qut.edu.au/courses/postgraduate/mba/>.

### Online Delivery

The Library and Information Science major is offered in multimodal delivery allowing students to complete their studies either face-to-face or online.

### Course completion rules

Students should meet the following requirements before they are able to complete the Masters program:

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core unit.
- Students wishing to specialise must complete the specific unit requirements for a major.
- Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points

### Further Information

For further information about this course, please contact:

Ross Hayward  
 Phone: +61 7 3138 2782  
 Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au) top

### IT43 - Master of Information Technology

#### Core

INN500 PRINCE2 (R) Project Management

#### Major Study Areas

Students choose one of the following majors (see Major option list):

No Major  
 Software Architecture  
 Network Management  
 Enterprise Systems  
 Games Production  
 Games Design  
 Security  
 Executive Information Practice  
 Library and Information Science  
 Information Management  
 Digital Environments

### Special Entry Requirements

Library and Information Science:

A bachelor degree in any discipline other than library and information science with a grade point average of at least 4.5 (On a 7 points scale).

Executive information practice:

Has core units from the MBA and as such must also meet the MBA entry requirements:

- Demonstrate competency in the English language
- Have a GMAT score of at least 500
- Have at least three years work experience
- At least 10 points from at least two of the three categories - prior work experience, academic achievement and management aptitude
- For further information, please see the table at: <http://www.bus.qut.edu.au/courses/postgraduate/mba/>



## Master of Information Technology (Games Design) (IT43)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 003776E

**Course duration (full-time):** 1.5 years

**Course duration (part-time):** 3 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### Overview

This course focuses on developing the design and storytelling skills required to create games and interactive technology. You will have the opportunity to develop and apply these skills to your own discipline area. You will develop advanced project management skills together with the capability to analyse design and requirements appropriate to interactive environments, taking into consideration such aspects as the type of interaction required for your targeted users and the social implications of that interaction. You will also have the opportunity to research and apply the most up-to-date methods and techniques in this discipline. This course allows current industry members to take those skills that they have already acquired and extend them to support career development.

### Why study this major?

As entertainment technologies improve so do the expectations of the users of these technologies. Entertainment technologies have expanded to other applications such as education, simulation, training and more. Young people are growing up in a world of three-dimensional virtual environments. This course gives people within industries not traditionally related to entertainment the opportunity to develop skills within this area to enhance interactive techniques applicable to their own discipline. It allows members of unrelated industries to take the skills developed over many years in the interactive entertainment industries and apply them within a different context.

### Career Progression

This postgraduate course allows a graduate to learn the process of designing games even when their profession is not in the games industry, e.g. education, training and simulation. A career outcome includes a games or simulation designer.

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- Australian equivalent of a bachelor's degree in any

discipline with a grade point average of at least 4.5 (on a 7-point scale)

OR

- Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

**Domestic students:**

Domestic students who have completed an undergraduate degree (in any field) with a minimum grade point average (GPA) of at least 4.5 (on a 7-point scale) are eligible for the programs described in this proposal.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

**International Students:**

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

### Course completion rules

Students should meet the following requirements before they are able to complete the Masters program:

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core unit.
- Students wishing to specialise must complete the specific unit requirements for a major.
- Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Early exit options

Students should meet the following requirements before they are able to complete the Masters program:

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core unit.
- Students wishing to specialise must complete the specific unit requirements for a major.
- Students wishing to complete their postgraduate studies

without a single area of specialisation must satisfy the unit requirements for graduation with no major.

• Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

## Further Information

For further information about this course, please contact:

Ross Hayward

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

## IT43 - MIT (Games Design)

### Core

INN500 PRINCE2 (R) Project Management

### All of the following units:

INN180 Computer Games Studies

INN272 Interaction Design

INN280 Fundamentals of Game Design

INN281 Advanced Game Design

### In addition, select 3 of the following units:

INN181 Introduction to Games Production

INN385 Multimedia Systems

INN386 Advanced Multimedia Systems

INN600 Advanced Readings 1

INN601 Advanced Readings 2

INN700 Introduction To Research

KIB201 Concept Development for Game Design and Interactive Media

INN381 Modelling and Animation Techniques

KIB202 Enabling Immersion

INN382 Real Time Rendering Techniques

INN383 AI for Games

INN701 Advanced Research Topics

MAN281 Mathematics for Computer Graphics

INN282 Games Level Design

### Elective Units

Select any four Postgraduate Units

## Postgraduate IT Units

### Unit List:

INN101 Impact of IT

INN120 Corporate Systems

INN122 Organisational Databases

INN124 Information Systems Development

INN180 Computer Games Studies

INN181 Introduction to Games Production

INN210 Databases

INN220 Business Analysis

INN221 Technology Management

INN250 Foundations of Computer Science

INN251 Networks

INN255 Security

INN270 Programming

INN271 The Web

INN272 Interaction Design

INN280 Fundamentals of Game Design

INN311 Enterprise Systems

INN312 Enterprise Systems Applications

INN313 Electronic Commerce Site Development

INN320 Business Process Modelling

INN321 Business Process Management

INN322 Information Systems Consulting

INN330 Information Management

INN331 Management Issues for Information Professionals

INN332 Information Retrieval

INN333 Information Programs

INN335 Information Resources

INN340 Database Design

INN341 Software Development With Oracle

INN342 Enterprise Data Mining and Data Analysis

INN343 Advanced Data Mining and Data Warehousing

INN344 Search Engine Technology

INN345 Mobile Devices

INN346 Enterprise 2.0

INN347 Web 2.0 Applications

INN350 Internet Protocols and Services

INN351 Unix Network Administration

INN352 Network Planning

INN353 Wireless and Mobile Networks

INN355 Cryptology and Protocols

INN365 Systems Programming

INN370 Software Development

INN371 Data Structures and Algorithms

INN372 Agile Software Development

INN373 Web Application Development

INN374 Enterprise Software Architecture

INN381 Modelling and Animation Techniques

INN382 Real Time Rendering Techniques

INN385 Multimedia Systems

INN386 Advanced Multimedia Systems

INN500 PRINCE2 (R) Project Management

INN530 Web Content Reliability

INN531 Information Services

INN532 Information Literacy Education

INN533	Information Organisation
INN540	User Experience
INN550	Computer Forensics
INN570	Internationalisation of Software
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN610	Case Studies in Business Process Management
INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice
INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
INN650	Advanced Network Management
INN651	Security Technologies
INN652	Advanced Cryptology
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN700	Introduction To Research
INN696-2	Major Project 2
INN701	Advanced Research Topics
INN281	Advanced Game Design
INS040	Professional Experience (Postgraduate)
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INS452	CCNP1: Building Scalable Internetworks
INS454	CCNP3: Building Multi Layered Switched Networks
INS456	Voice Over IP 1
INS457	CISCO VOIP

## Master of Information Technology (Games Production) (IT43)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 003776E

**Course duration (full-time):** 1.5 years

**Course duration (part-time):** 3 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### Overview

This course focuses on developing managerial skills required to produce games; that is, the management of a team and the production of an interactive project. You will establish an understanding of the production process and the skills relating to the management of a team of people in a creative environment. You will also have the opportunity to gain hands-on experience in this endeavour through the supervision of undergraduate final-year project teams from project inception to completion.

### Why study this major?

As the video games and related industries develop, so does the need for people within those industries, to enhance their skills beyond the technical to production and management. The Games Production stream has been developed to meet the skill sets required at higher management levels. It allows current industry members to take those skills that they have already acquired and extend them to support career development.

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)

OR

- Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

**Domestic students:**

Domestic students who have completed an undergraduate degree (in any field) with a minimum grade point average (GPA) of at least 4.5 (on a 7-point scale) are eligible for the programs described in this proposal.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

**International Students:**

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

### Career Progression

Games production is an exciting multibillion dollar emerging industry. Careers include game/simulation developer or game/simulation producer. If you already work in the games or related industries, you could progress your career to management or executive-level positions.

### Course completion rules

Students should meet the following requirements before they are able to complete the Masters program:

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core unit.
- Students wishing to specialise must complete the specific unit requirements for a major.
- Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points

### Further Information

For further information about this course, please contact:

Ross Hayward

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### IT43 - MIT (Games Production)

Core

INN500 PRINCE2 (R) Project Management

All of the following units:

INN180 Computer Games Studies  
INN181 Introduction to Games Production  
INN600 Advanced Readings 1  
INN601 Advanced Readings 2

In addition, select 3 of the following units:

INN220 Business Analysis  
INN321 Business Process Management  
INN330 Information Management  
INN311 Enterprise Systems  
INN700 Introduction To Research  
INN701 Advanced Research Topics

Select any four elective units from the list below:

GSN401 Managing in the Global Business Environment  
GSN405 Strategic Management  
GSN413 Financial Management 1  
GSN415 Understanding Leadership  
GSN416 Business Plans 1  
INN690 Minor Project 1  
INN691 Minor Project 2  
INN692 Minor Project 3  
INN693 Project  
INN694-1 Project 1  
INN694-2 Project



## **Master of Information Technology (Information Management) (IT43)**

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 003776E

**Course duration (full-time):** 1.5 years

**Course duration (part-time):** 3 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Discipline coordinator:** Dr Helen Partridge

**Campus:** Gardens Point

### **Overview**

The Information Management major provides you with the skill and knowledge to find employment in the information and knowledge management industry. You will gain awareness of the activities in which information management professionals are engaged, in various organisational contexts. You will have the opportunity through electives to tailor your learning to specific contexts such as health services, educational settings, creative industries and information technology.

You will develop skill and knowledge in information management including the alignment of enterprise information and business planning, enterprise information policy, evaluation of information resources and systems, and the design, delivery and evaluation of information services to meet client or organisational needs.

### **Why study this Major?**

Information is now viewed as one of the most significant assets in an organisation. The ability to obtain and manage information on an ongoing basis is an important component of competitive success. Internal and external information resources are used constantly in any organisation. Information managers help organisations to more effectively interact with and utilise information for business development and success. Information managers require the knowledge and expertise to design, plan, develop, manage and evaluate information services to meet the information needs of their organisation.

### **Career Progression**

Careers include information broker, information manager, knowledge manager, database manager, webmaster, information architect, information coordinator, policy officer, research analyst, information services manager, document manager, metadata analyst, community information officer or learning resources officer.

### **Entry requirements**

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)

OR

- Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

Domestic students:

Domestic students who have completed an undergraduate degree (in any field) with a minimum grade point average (GPA) of at least 4.5 (on a 7-point scale) are eligible for the programs described in this proposal.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

International Students:

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

### **Course completion rules**

Students should meet the following requirements before they are able to complete the Masters program:

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core unit.
- Students wishing to specialise must complete the specific unit requirements for a major.
- Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### **Early exit options**

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an

approved 96 credit points

### Further Information

For further information about this course, please contact:

Ross Hayward or Helen Partridge  
Phone: +61 7 3138 2782  
Email: enquiry.scitech@qut.edu.au

### IT43 - MIT (Information Management)

#### Core

INN500 PRINCE2 (R) Project Management

#### All of the following units:

INN122 Organisational Databases  
INN220 Business Analysis  
INN255 Security  
INN330 Information Management  
INN335 Information Resources

#### In addition, select 2 of the following units:

INN334 Information Issues and Values  
INN540 User Experience  
INN700 Introduction To Research  
INN600 Advanced Readings 1  
INN601 Advanced Readings 2  
INN602 Advanced Readings 3  
INN605 Advanced Research 1  
INN606 Advanced Research 2  
INN607 Advanced Research 3  
INN701 Advanced Research Topics

#### Elective Units

Select any four Postgraduate Units

### Postgraduate IT Units

#### Unit List:

INN101 Impact of IT  
INN120 Corporate Systems  
INN122 Organisational Databases  
INN124 Information Systems Development  
INN180 Computer Games Studies  
INN181 Introduction to Games Production  
INN210 Databases  
INN220 Business Analysis  
INN221 Technology Management  
INN250 Foundations of Computer Science  
INN251 Networks  
INN255 Security  
INN270 Programming

INN271 The Web  
INN272 Interaction Design  
INN280 Fundamentals of Game Design  
INN311 Enterprise Systems  
INN312 Enterprise Systems Applications  
INN313 Electronic Commerce Site Development  
INN320 Business Process Modelling  
INN321 Business Process Management  
INN322 Information Systems Consulting  
INN330 Information Management  
INN331 Management Issues for Information Professionals  
INN332 Information Retrieval  
INN333 Information Programs  
INN335 Information Resources  
INN340 Database Design  
INN341 Software Development With Oracle  
INN342 Enterprise Data Mining and Data Analysis  
INN343 Advanced Data Mining and Data Warehousing  
INN344 Search Engine Technology  
INN345 Mobile Devices  
INN346 Enterprise 2.0  
INN347 Web 2.0 Applications  
INN350 Internet Protocols and Services  
INN351 Unix Network Administration  
INN352 Network Planning  
INN353 Wireless and Mobile Networks  
INN355 Cryptology and Protocols  
INN365 Systems Programming  
INN370 Software Development  
INN371 Data Structures and Algorithms  
INN372 Agile Software Development  
INN373 Web Application Development  
INN374 Enterprise Software Architecture  
INN381 Modelling and Animation Techniques  
INN382 Real Time Rendering Techniques  
INN385 Multimedia Systems  
INN386 Advanced Multimedia Systems  
INN500 PRINCE2 (R) Project Management  
INN530 Web Content Reliability  
INN531 Information Services  
INN532 Information Literacy Education  
INN533 Information Organisation  
INN540 User Experience  
INN550 Computer Forensics  
INN570 Internationalisation of Software  
INN600 Advanced Readings 1  
INN601 Advanced Readings 2

INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN610	Case Studies in Business Process Management
INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice
INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
INN650	Advanced Network Management
INN651	Security Technologies
INN652	Advanced Cryptology
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN700	Introduction To Research
INN696-2	Major Project 2
INN701	Advanced Research Topics
INN281	Advanced Game Design
INS040	Professional Experience (Postgraduate)
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INS452	CCNP1: Building Scalable Internetworks
INS454	CCNP3: Building Multi Layered Switched Networks
INS456	Voice Over IP 1
INS457	CISCO VOIP

## Master of Information Technology (Library and Information Science) (IT43)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 003776E

**Course duration (full-time):** 1.5 years

**Course duration (part-time):** 3 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February (and July for part-time only)

**International Entry:** February

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Discipline coordinator:** Dr Helen Partridge

**Campus:** Gardens Point

### Overview

The Library and Information Science major provides graduates with the skills to find employment in the library and information industry. You will acquire the knowledge and expertise required to design, plan, develop, manage and evaluate library and information services to meet the information needs of clients.

This major is offered in a flexible delivery mode, allowing students to complete their studies either face-to-face or online.

### Why study this Major?

Libraries play a vital role in our information society. They help to connect people with the ever changing world of information. Librarians help individuals to more effectively interact with, and use, information in all aspects of their lives. Librarians require the knowledge and expertise to design, plan, develop, manage and evaluate library and information services to meet the information needs of their clients and assist them to become information literate. This course provides the core skills and knowledge required by the successful librarian in today's information-rich and technology-driven age.

### Professional Recognition

Graduates from the specialisation will be eligible for associate membership of the Australian Library and Information Association (ALIA).

### Career Progression

Careers include librarian, information broker, information manager, knowledge manager, database manager, webmaster, information architect, information coordinator, policy officer, research analyst, corporate librarian, information services manager, document manager, web librarian, metadata analyst, specialist liaison librarian, community information officer, cataloguer, digital library coordinator, systems librarian, law librarian, learning resources officer or library media specialist.

### Special entry requirements

A bachelor degree in any discipline other than library and information science with a grade point average of at least 4.5 (on a 7 point scale)

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)

OR

- Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

Domestic students:

Domestic students who have completed an undergraduate degree (in any field) with a minimum grade point average (GPA) of at least 4.5 (on a 7-point scale) are eligible for the programs described in this proposal.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

International Students:

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

### Course completion rules

Before they are able to complete the Masters program:

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core unit.
- Students wishing to specialise must complete the specific unit requirements for a major.
- Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Online delivery

The Library and Information Science major is offered in multimodal delivery allowing students to complete their studies either face-to-face or online.

### Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points.

### Further Information

For further information about this course, please contact:

Ross Hayward or Helen Partridge  
Phone: +61 7 3138 2782  
Email: enquiry.scitech@qut.edu.au

### IT43 - MIT (Library and Information Science)

#### Core

INN500	PRINCE2 (R) Project Management OR
INN690	Minor Project 1

#### Select all of the following units:

INN330	Information Management
INN331	Management Issues for Information Professionals
INN332	Information Retrieval
INN333	Information Programs
INN530	Web Content Reliability
INN531	Information Services
INN532	Information Literacy Education
INN533	Information Organisation
INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice
INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
Please note: Students who begin a multi-component unit set (eg. INN632) must complete the entire set.	

#### Elective Units

Select any two Postgraduate units

### Postgraduate IT Units

#### Unit List:

INN101	Impact of IT
INN120	Corporate Systems

INN122	Organisational Databases
INN124	Information Systems Development
INN180	Computer Games Studies
INN181	Introduction to Games Production
INN210	Databases
INN220	Business Analysis
INN221	Technology Management
INN250	Foundations of Computer Science
INN251	Networks
INN255	Security
INN270	Programming
INN271	The Web
INN272	Interaction Design
INN280	Fundamentals of Game Design
INN311	Enterprise Systems
INN312	Enterprise Systems Applications
INN313	Electronic Commerce Site Development
INN320	Business Process Modelling
INN321	Business Process Management
INN322	Information Systems Consulting
INN330	Information Management
INN331	Management Issues for Information Professionals
INN332	Information Retrieval
INN333	Information Programs
INN335	Information Resources
INN340	Database Design
INN341	Software Development With Oracle
INN342	Enterprise Data Mining and Data Analysis
INN343	Advanced Data Mining and Data Warehousing
INN344	Search Engine Technology
INN345	Mobile Devices
INN346	Enterprise 2.0
INN347	Web 2.0 Applications
INN350	Internet Protocols and Services
INN351	Unix Network Administration
INN352	Network Planning
INN353	Wireless and Mobile Networks
INN355	Cryptology and Protocols
INN365	Systems Programming
INN370	Software Development
INN371	Data Structures and Algorithms
INN372	Agile Software Development
INN373	Web Application Development
INN374	Enterprise Software Architecture
INN381	Modelling and Animation Techniques
INN382	Real Time Rendering Techniques
INN385	Multimedia Systems



INN386	Advanced Multimedia Systems
INN500	PRINCE2 (R) Project Management
INN530	Web Content Reliability
INN531	Information Services
INN532	Information Literacy Education
INN533	Information Organisation
INN540	User Experience
INN550	Computer Forensics
INN570	Internationalisation of Software
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN610	Case Studies in Business Process Management
INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice
INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
INN650	Advanced Network Management
INN651	Security Technologies
INN652	Advanced Cryptology
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN700	Introduction To Research
INN696-2	Major Project 2
INN701	Advanced Research Topics
INN281	Advanced Game Design
INS040	Professional Experience (Postgraduate)
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INS452	CCNP1: Building Scalable Internetworks
INS454	CCNP3: Building Multi Layered Switched Networks
INS456	Voice Over IP 1
INS457	CISCO VOIP

## Master of Information Technology (Network Management) (IT43)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 003776E

**Course duration (full-time):** 1.5 years

**Course duration (part-time):** 3 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### Overview

The Network Management major provides the practical skills and the theory to make you a more effective network manager. It offers in-depth study of emerging network management issues such as security, network monitoring and high availability design.

You will gain up-to-date technical skills for the administration and management of computer networks using an environment that is currently used in industry, and also the theory and practical aspects of network administration and management. Network Management graduates are required to plan either new networks or the upgrading of existing networks. You will be exposed to methodologies and procedures that are useful in addressing the issues involved in network planning and management. Ensuring that the network is secure is a theme that is maintained throughout the course.

### Why study this Major?

Computer networks are essential for the running of today's organisations. Employees spend an ever increasing amount of time remote from their individual workspace. This has led to organisations seeking to deploy appropriate networks that allow real-time access to the corporate network anywhere around the world. The scope of the field of data communications and networks is constantly changing. Voice and data networking technologies are converging to provide more advanced systems with additional functionality and efficiencies. To ensure the effective and efficient operation of computer networks, they need to be designed, deployed and administered by competent technical people, which is why the Faculty has a dedicated major in this field.

### Career Progression

Careers include business analyst, systems analyst, systems manager, data communications specialist, network administrator, network manager or Internet professional.

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)

OR

- Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

**Domestic students:**

Domestic students who have completed an undergraduate degree (in any field) with a minimum grade point average (GPA) of at least 4.5 (on a 7-point scale) are eligible for the programs described in this proposal.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

**International Students:**

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

### Course completion rules

Students should meet the following requirements before they are able to complete the Masters program:

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core unit.
- Students wishing to specialise must complete the specific unit requirements for a major.
- Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points.

### Further Information

For further information about this course, please contact:

Ross Hayward

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

### IT43 - MIT (Network Management)

#### Core

INN500 PRINCE2 (R) Project Management

#### All of the following units:

INN350 Internet Protocols and Services

INN351 Unix Network Administration

INN352 Network Planning

INN650 Advanced Network Management

#### In addition, select 3 of the following units:

INN255 Security

INN353 Wireless and Mobile Networks

INN355 Cryptology and Protocols

INN550 Computer Forensics

INN600 Advanced Readings 1

INN601 Advanced Readings 2

INN602 Advanced Readings 3

INN605 Advanced Research 1

INN606 Advanced Research 2

INN607 Advanced Research 3

INN651 Security Technologies

INN652 Advanced Cryptology

INN700 Introduction To Research

INS450 CCNA 1 and 2 Network Fundamentals and Routing

INS451 CCNA 3 and 4 Lan Switching

INS452 CCNP1: Building Scalable Internetworks

INS453 CCNP 2: Implementing Secure Network Coverage

INS454 CCNP3: Building Multi Layered Switched Networks

INS455 CCNP4: Optimising Converged Networks

INN701 Advanced Research Topics

#### Elective Units

Select any four Postgraduate Units

### Postgraduate IT Units

#### Unit List:

INN101 Impact of IT

INN120 Corporate Systems

INN122 Organisational Databases

INN124 Information Systems Development

INN180 Computer Games Studies

INN181 Introduction to Games Production

INN210 Databases

INN220 Business Analysis

INN221 Technology Management

INN250 Foundations of Computer Science

INN251 Networks

INN255 Security

INN270 Programming

INN271 The Web

INN272 Interaction Design

INN280 Fundamentals of Game Design

INN311 Enterprise Systems

INN312 Enterprise Systems Applications

INN313 Electronic Commerce Site Development

INN320 Business Process Modelling

INN321 Business Process Management

INN322 Information Systems Consulting

INN330 Information Management

INN331 Management Issues for Information Professionals

INN332 Information Retrieval

INN333 Information Programs

INN335 Information Resources

INN340 Database Design

INN341 Software Development With Oracle

INN342 Enterprise Data Mining and Data Analysis

INN343 Advanced Data Mining and Data Warehousing

INN344 Search Engine Technology

INN345 Mobile Devices

INN346 Enterprise 2.0

INN347 Web 2.0 Applications

INN350 Internet Protocols and Services

INN351 Unix Network Administration

INN352 Network Planning

INN353 Wireless and Mobile Networks

INN355 Cryptology and Protocols

INN365 Systems Programming

INN370 Software Development

INN371 Data Structures and Algorithms

INN372 Agile Software Development

INN373 Web Application Development

INN374 Enterprise Software Architecture

INN381 Modelling and Animation Techniques

INN382 Real Time Rendering Techniques

INN385 Multimedia Systems

INN386 Advanced Multimedia Systems

INN500	PRINCE2 (R) Project Management
INN530	Web Content Reliability
INN531	Information Services
INN532	Information Literacy Education
INN533	Information Organisation
INN540	User Experience
INN550	Computer Forensics
INN570	Internationalisation of Software
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN610	Case Studies in Business Process Management
INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice
INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
INN650	Advanced Network Management
INN651	Security Technologies
INN652	Advanced Cryptology
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN700	Introduction To Research
INN696-2	Major Project 2
INN701	Advanced Research Topics
INN281	Advanced Game Design
INS040	Professional Experience (Postgraduate)
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INS452	CCNP1: Building Scalable Internetworks
INS454	CCNP3: Building Multi Layered Switched Networks
INS456	Voice Over IP 1
INS457	CISCO VOIP

## Master of Information Technology (Security) (IT43)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 003776E

**Course duration (full-time):** 1.5 years

**Course duration (part-time):** 3 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### Overview

This course offers advanced studies in information security, both in the business and technical sense. You are introduced to a range of information security issues and its broad context; the people, processes and technologies involved with interacting in this new online era. You will explore these topics through participation in the form of projects (research related and industry related) and practice in the community (small groups focusing on particular advanced topics). You will be exposed to the research and industry best-practice environment within QUT's Information Security Institute (ISI) through collaboration with its staff and students. Students will graduate with an understanding and appreciation of what it means to be a security professional in contemporary global environments.

### Why study this Major?

IT systems are increasingly used to store, process and exchange information ranging from e-commerce applications to critical infrastructure such as utilities, financial institutions, transport and telecommunications networks. Security breaches are routinely reported in the mainstream media, making security assurance no longer a choice but a requirement. Associated with this increased awareness and organisational compliance requirement is a growth in demand for IT personnel with management expertise and technical skills in information security.

### Career Progression

Careers include information security specialist, information consultant, information assurance professional, information manager and progression to research career in information security.

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)

OR

- Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

Domestic students:

Domestic students who have completed an undergraduate degree (in any field) with a minimum grade point average (GPA) of at least 4.5 (on a 7-point scale) are eligible for the programs described in this proposal.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

International Students:

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

### Course completion rules

Students should meet the following requirements before they are able to complete the Masters program:

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core unit.
- Students wishing to specialise must complete the specific unit requirements for a major.
- Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points.

### Further Information

For further information about this course, please contact:

Ross Hayward  
Phone: +61 7 3138 2782



Email: enquiry.scitech@qut.edu.au

### IT43 - MIT (Security)

#### Core

INN500 PRINCE2 (R) Project Management

#### All of the following units:

INN255 Security

INN651 Security Technologies

#### In addition, select 5 of the following units:

INN355 Cryptology and Protocols

INN550 Computer Forensics

INN600 Advanced Readings 1

INN601 Advanced Readings 2

INN602 Advanced Readings 3

INN605 Advanced Research 1

INN606 Advanced Research 2

INN607 Advanced Research 3

INN652 Advanced Cryptology

INN690 Minor Project 1

INN691 Minor Project 2

INN692 Minor Project 3

INN693 Project

INN694-1 Project 1

INN694-2 Project

INN695 Major Project

INN696-1 Major Project 1

INN696-2 Major Project 2

INN700 Introduction To Research

GSN440 Risk Management 1

JSN106 Analytical Methods of Intelligence

MAN778 Applications of Discrete Mathematics

MGN423 Contemporary Strategic Analysis

MGN433 Managing High-Performance Organisations

INN701 Advanced Research Topics

LWN117 Cyber Law and Policy

#### Elective Units

Select any four Postgraduate Units

### Postgraduate IT Units

#### Unit List:

INN101 Impact of IT

INN120 Corporate Systems

INN122 Organisational Databases

INN124 Information Systems Development

INN180 Computer Games Studies

INN181 Introduction to Games Production

INN210 Databases

INN220 Business Analysis

INN221 Technology Management

INN250 Foundations of Computer Science

INN251 Networks

INN255 Security

INN270 Programming

INN271 The Web

INN272 Interaction Design

INN280 Fundamentals of Game Design

INN311 Enterprise Systems

INN312 Enterprise Systems Applications

INN313 Electronic Commerce Site Development

INN320 Business Process Modelling

INN321 Business Process Management

INN322 Information Systems Consulting

INN330 Information Management

INN331 Management Issues for Information Professionals

INN332 Information Retrieval

INN333 Information Programs

INN335 Information Resources

INN340 Database Design

INN341 Software Development With Oracle

INN342 Enterprise Data Mining and Data Analysis

INN343 Advanced Data Mining and Data Warehousing

INN344 Search Engine Technology

INN345 Mobile Devices

INN346 Enterprise 2.0

INN347 Web 2.0 Applications

INN350 Internet Protocols and Services

INN351 Unix Network Administration

INN352 Network Planning

INN353 Wireless and Mobile Networks

INN355 Cryptology and Protocols

INN365 Systems Programming

INN370 Software Development

INN371 Data Structures and Algorithms

INN372 Agile Software Development

INN373 Web Application Development

INN374 Enterprise Software Architecture

INN381 Modelling and Animation Techniques

INN382 Real Time Rendering Techniques

INN385 Multimedia Systems

INN386 Advanced Multimedia Systems

INN500 PRINCE2 (R) Project Management

INN530 Web Content Reliability

INN531 Information Services

INN532	Information Literacy Education
INN533	Information Organisation
INN540	User Experience
INN550	Computer Forensics
INN570	Internationalisation of Software
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN610	Case Studies in Business Process Management
INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice
INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
INN650	Advanced Network Management
INN651	Security Technologies
INN652	Advanced Cryptology
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN700	Introduction To Research
INN696-2	Major Project 2
INN701	Advanced Research Topics
INN281	Advanced Game Design
INS040	Professional Experience (Postgraduate)
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INS452	CCNP1: Building Scalable Internetworks
INS454	CCNP3: Building Multi Layered Switched Networks
INS456	Voice Over IP 1
INS457	CISCO VOIP

## Master of Information Technology (Software Architecture) (IT43)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 003776E

**Course duration (full-time):** 1.5 years

**Course duration (part-time):** 3 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### Overview

This major will enhance your capabilities as a software developer. It will provide you with an understanding of the issues, structure and technologies used for developing software architectures. The course will provide you with the theoretical and practical skills needed to develop enterprise critical applications using state-of-the-art technologies. A comparative technology approach is taken, including an analysis of how software development technologies have evolved to date, in order to identify common themes and to better enable you to comprehend and critically evaluate future software technology offerings.

### Why study this Major?

A software architect is responsible for the high-level design and structure of an IT system. The systems developed by a software architect form a key part of the critical infrastructure of an organisation and the architect must balance a wide range of issues such as response time, portability, scalability and availability, when designing solutions for a client. Consequently the software architect needs a thorough understanding of advanced software development techniques and technologies, and how to take advantage of modern development environments and languages.

Understanding how and why programming approaches enable greater efficiency and flexibility is essential for graduates working in the IT industry. There are a wide variety of technologies available for developing software applications and they are continuing to evolve at a rapid pace.

### Career Progression

Careers include business analyst, electronic commerce developer, internet professional, multimedia designer, senior programmer, software engineer or systems programmer.

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)

OR

- Evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

**Domestic students:**

Domestic students who have completed an undergraduate degree (in any field) with a minimum grade point average (GPA) of at least 4.5 (on a 7-point scale) are eligible for the programs described in this proposal.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

**International Students:**

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

Applicants without an undergraduate degree in Information Technology (or equivalent) are recommended to select 3 Basic Elective Units as their electives. These electives are to be taken at the beginning of their studies.

### Course completion rules

Students should meet the following requirements before they are able to complete the Masters program:

- Students are required to complete 144 credit points of units.
- Students are required to complete the specified core unit.
- Students wishing to specialise must complete the specific unit requirements for a major.
- Students wishing to complete their postgraduate studies without a single area of specialisation must satisfy the unit requirements for graduation with no major.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points.

### Further Information

For further information about this course, please contact:

Ross Hayward

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

### IT43 - MIT (Software Architecture)

#### Core

INN500 PRINCE2 (R) Project Management

#### All of the following units:

INN371 Data Structures and Algorithms

INN372 Agile Software Development

INN374 Enterprise Software Architecture

INN570 Internationalisation of Software

#### In addition, select 3 of the following units:

INN271 The Web

INN313 Electronic Commerce Site Development

INN365 Systems Programming

INN370 Software Development

INN373 Web Application Development

INN600 Advanced Readings 1

INN601 Advanced Readings 2

INN602 Advanced Readings 3

INN605 Advanced Research 1

INN606 Advanced Research 2

INN607 Advanced Research 3

INN700 Introduction To Research

INN701 Advanced Research Topics

#### Elective Units

Select any four Postgraduate Units

### Postgraduate IT Units

#### Unit List:

INN101 Impact of IT

INN120 Corporate Systems

INN122 Organisational Databases

INN124 Information Systems Development

INN180 Computer Games Studies

INN181 Introduction to Games Production

INN210 Databases

INN220 Business Analysis

INN221 Technology Management

INN250 Foundations of Computer Science

INN251 Networks

INN255 Security

INN270 Programming

INN271 The Web

INN272 Interaction Design

INN280 Fundamentals of Game Design

INN311 Enterprise Systems

INN312 Enterprise Systems Applications

INN313 Electronic Commerce Site Development

INN320 Business Process Modelling

INN321 Business Process Management

INN322 Information Systems Consulting

INN330 Information Management

INN331 Management Issues for Information Professionals

INN332 Information Retrieval

INN333 Information Programs

INN335 Information Resources

INN340 Database Design

INN341 Software Development With Oracle

INN342 Enterprise Data Mining and Data Analysis

INN343 Advanced Data Mining and Data Warehousing

INN344 Search Engine Technology

INN345 Mobile Devices

INN346 Enterprise 2.0

INN347 Web 2.0 Applications

INN350 Internet Protocols and Services

INN351 Unix Network Administration

INN352 Network Planning

INN353 Wireless and Mobile Networks

INN355 Cryptology and Protocols

INN365 Systems Programming

INN370 Software Development

INN371 Data Structures and Algorithms

INN372 Agile Software Development

INN373 Web Application Development

INN374 Enterprise Software Architecture

INN381 Modelling and Animation Techniques

INN382 Real Time Rendering Techniques

INN385 Multimedia Systems

INN386 Advanced Multimedia Systems

INN500 PRINCE2 (R) Project Management

INN530 Web Content Reliability

INN531 Information Services

INN532 Information Literacy Education

INN533 Information Organisation

INN540 User Experience

INN550 Computer Forensics

INN570 Internationalisation of Software

INN600 Advanced Readings 1

INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN610	Case Studies in Business Process Management
INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice
INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
INN650	Advanced Network Management
INN651	Security Technologies
INN652	Advanced Cryptology
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN700	Introduction To Research
INN696-2	Major Project 2
INN701	Advanced Research Topics
INN281	Advanced Game Design
INS040	Professional Experience (Postgraduate)
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INS452	CCNP1: Building Scalable Internetworks
INS454	CCNP3: Building Multi Layered Switched Networks
INS456	Voice Over IP 1
INS457	CISCO VOIP



## Master of Information Technology (Advanced) (IT44)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 053123F

**Course duration (full-time):** 2 years

**Course duration (part-time):** 4 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Discipline coordinator:** Dr Yue Xu

**Campus:** Gardens Point

### IT44 Null major option

#### Core

INN500 PRINCE2 (R) Project Management

#### Electives

\*Any IT postgraduate units not in the "Basic Unit List", such that at least one unit is of the form: INN5XX, INN6XX or INN7SS and the total unit set equals 84 credit points

Plus

\* any postgraduate units to 48 credit points

#### Advanced Research Units (Project Units)

Students of IT44 are required to complete 48 credit points of advanced research/project units in the form of a 48 credit point Dissertation or two 24 credit point Projects.

### Postgraduate IT Units

#### Unit List:

INN101 Impact of IT  
INN120 Corporate Systems  
INN122 Organisational Databases  
INN124 Information Systems Development  
INN180 Computer Games Studies  
INN181 Introduction to Games Production  
INN210 Databases  
INN220 Business Analysis  
INN221 Technology Management  
INN250 Foundations of Computer Science  
INN251 Networks  
INN255 Security  
INN270 Programming  
INN271 The Web

INN272 Interaction Design  
INN280 Fundamentals of Game Design  
INN311 Enterprise Systems  
INN312 Enterprise Systems Applications  
INN313 Electronic Commerce Site Development  
INN320 Business Process Modelling  
INN321 Business Process Management  
INN322 Information Systems Consulting  
INN330 Information Management  
INN331 Management Issues for Information Professionals  
INN332 Information Retrieval  
INN333 Information Programs  
INN335 Information Resources  
INN340 Database Design  
INN341 Software Development With Oracle  
INN342 Enterprise Data Mining and Data Analysis  
INN343 Advanced Data Mining and Data Warehousing  
INN344 Search Engine Technology  
INN345 Mobile Devices  
INN346 Enterprise 2.0  
INN347 Web 2.0 Applications  
INN350 Internet Protocols and Services  
INN351 Unix Network Administration  
INN352 Network Planning  
INN353 Wireless and Mobile Networks  
INN355 Cryptology and Protocols  
INN365 Systems Programming  
INN370 Software Development  
INN371 Data Structures and Algorithms  
INN372 Agile Software Development  
INN373 Web Application Development  
INN374 Enterprise Software Architecture  
INN381 Modelling and Animation Techniques  
INN382 Real Time Rendering Techniques  
INN385 Multimedia Systems  
INN386 Advanced Multimedia Systems  
INN500 PRINCE2 (R) Project Management  
INN530 Web Content Reliability  
INN531 Information Services  
INN532 Information Literacy Education  
INN533 Information Organisation  
INN540 User Experience  
INN550 Computer Forensics  
INN570 Internationalisation of Software  
INN600 Advanced Readings 1  
INN601 Advanced Readings 2  
INN602 Advanced Readings 3

## FACULTY OF SCIENCE AND TECHNOLOGY

INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN610	Case Studies in Business Process Management
INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice
INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
INN650	Advanced Network Management
INN651	Security Technologies
INN652	Advanced Cryptology
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN700	Introduction To Research
INN696-2	Major Project 2
INN701	Advanced Research Topics
INN281	Advanced Game Design
INS040	Professional Experience (Postgraduate)
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INS452	CCNP1: Building Scalable Internetworks
INS454	CCNP3: Building Multi Layered Switched Networks
INS456	Voice Over IP 1
INS457	CISCO VOIP

INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN696-2	Major Project 2

### Basic Unit List

INN101	Impact of IT
INN120	Corporate Systems
INN122	Organisational Databases
INN124	Information Systems Development
INN180	Computer Games Studies
INN210	Databases
INN220	Business Analysis
INN221	Technology Management
INN251	Networks
INN255	Security
INN270	Programming
INN271	The Web
INN272	Interaction Design

### IT44 - Advanced Research/Project Units

#### Major Study Areas

INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project

## Master of Information Technology (Advanced) (IT44)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 053123F

**Course duration (full-time):** 2 years

**Course duration (part-time):** 4 years

**Domestic fees (indicative):** Refer to majors

**International Fees (indicative):** Refer to majors

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### Description

Information technology is now firmly ensconced in society with all the other business practices that constitute modern organisations. This Master of Information Technology course has interfaculty contributions from the Faculties of IT, Business, Creative Industries and Law, matching closely to their relevant IT research areas. Recognition of the burgeoning of specialised areas within the Information Industries is reflected in course structures that provide for ten different majors other than the "No Major" option:

- Software Architecture
- Network Management
- Enterprise Systems
- Games Production
- Games Design
- Security
- Library and Information Science
- Information Management
- Digital Environments
- Executive Information Practice

The structure of this course is designed so that a student does not have to decide on a major until after the first semester. Elective and core units may be selected first. Students must generally complete the core unit and seven units from within their major. The only exception to this structure is in the Library and Information Science major.

#### Electives:

Students can generally select up to 4 electives; again, the exception is in the Library and Information Science major, where students can select no more than two electives.

Non-cognate students are recommended to select three Basic Elective Units as their electives.

#### Advanced Research Units (Complementary Studies):

Students who enrol in the Masters Advanced program must complete four advanced research or project units. It is recommended that students complete advanced research and project units in the latter half of their course.

Students wishing to use the Masters Advanced program as a pathway to a PhD program within QUT are advised to enrol in INN700 Introduction to Research as part of their

major and take INN701 Advanced Research Methodologies as an elective.

It is possible for students to complete dual Master degrees. Students can receive up to four units of credit for a previous Masters degree as part of their elective unit block. Thus, they are only required to complete the major and core. Students may then receive their Masters degree from the Faculty of Information Technology in two semesters.

Students undertaking units from the MBA program (GSN units) in the Graduate School of Business (GSB) must meet the MBA entry requirements. Please see the GSB website for further information.

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- the Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)
- OR
- evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

### Special Entry Requirements

Library and Information Science Major:

A bachelor degree in any discipline other than library and information science with a grade point average of at least 4.5 (On a 7 points scale).

Executive information practice major - has core units from the MBA and as such must also meet the MBA entry requirements:

- Demonstrate competency in the English language
- Have a GMAT score of at least 500
- Have at least three years work experience
- At least 10 points from at least two of the three categories
- prior work experience, academic achievement and management aptitude
- For further information please see Entry Requirements.

### Course completion rules

Students should meet the following requirements before they are able to complete the Masters Advanced program:

- Students are required to complete 192 credit points of

units.

- Students are required to complete the specified core unit.
- Students seeking a single area of specialisation must complete the specific unit requirements for a major.
- Students not seeking a single area of specialisation may graduate with no major.
- Students must complete 48 credit points of project or advanced research units.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

## Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points, or with a Masters (IT43) after successful completion of an approved 144 credit points.

## Further Information

For further information about this course, please contact:

Dr Ross Hayward

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

- Demonstrate competency in the English language
- Have a GMAT score of at least 500
- Have at least three years work experience
- At least 10 points from at least two of the three categories - prior work experience, academic achievement and management aptitude
- For further information, please see <http://www.bus.qut.edu.au/courses/postgraduate/mba/mba.jsp?major-id=13815&major-tab=details>.

## IT44 - Master of Information Technology (Advanced)

### Core

INN500 PRINCE2 (R) Project Management

### Major Study Areas

Students choose one of the following majors (see Major option list):

No Major (Information Technology)

Software Architecture

Network Management

Enterprise Systems

Games Production

Games Design

Security

Executive Information Practice

Library and Information Science

Information Management

Digital Environments

### Special Entry Requirements

Library and Information Science:

A bachelor degree in any discipline other than library and information science with a grade point average of at least 4.5 (On a 7 points scale).

Executive information practice:

Has core units from the MBA and as such must also meet the MBA entry requirements:

## Master of Information Technology (Advanced) (Digital Environments) (IT44)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 053123F

**Course duration (full-time):** 2 years

**Course duration (part-time):** 4 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Discipline coordinator:** Dr Jason Watson

**Campus:** Gardens Point

### Overview

Web technologies and applications are reshaping contemporary organisations. This major allows you to study how developments in IT shape society through applications like FaceBook, MySpace, Second Life, Smart Phones, iPods and gaming devices.

This major has been designed to meet the needs of professionals and organisations seeking to harness the benefits of social computing to advance business goals. Students will explore the ways in which IT has altered the production of knowledge, community building collaboration and the design and delivery of organisational activities and services. This major is aimed at professionals and organisations seeking to be not just IT-savvy users but leaders and innovators.

### Why study this Major?

Increasingly, web 2.0 technologies such as wikis, blogs and social networks are being used within organisations. A future trend will see successful contemporary professionals and organisations requiring expertise in not just business and management practice but in the critical design, use and consequences of new and emerging social technologies. The Digital Environments major represents a new and emerging field for the IT discipline. It symbolises the growing interlink between IT, business and society.

### Career Progression

Graduates from the Digital Environments major will find positions in a broad range of industries and will be well placed to contribute to organisational success. Some key positions include online community manager, social network analyst, community organiser, e-marketer, web analyst, systems administrator, IT project manager, application developer, web developer, communications and marketing manager, IT manager, web manager, knowledge manager, IT analyst, technology officer, technology consultant.

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- the Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)
- OR
- evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

### Course completion rules

Course completion rules

Students should meet the following requirements before they are able to complete the Masters Advanced program:

- Students are required to complete 192 credit points of units.
- Students are required to complete the specified core unit.
- Students seeking a single area of specialisation must complete the specific unit requirements for a major.
- Students not seeking a single area of specialisation may graduate with no major.
- Students must complete 48 credit points of project or advanced research units.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points, or with a Masters (IT43) after successful completion of an approved 144 credit points.

### Further Information

For further information about this course, please contact:

Jason Watson

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### IT44 - MIT (Advanced) (Digital Environments)

#### Core

INN500 PRINCE2 (R) Project Management



## Select all of the following units:

INN345	Mobile Devices
INN346	Enterprise 2.0
INN347	Web 2.0 Applications
INN540	User Experience
INN690	Minor Project 1
KCP408	Exploring New Media Worlds

In addition, select any (total of 12 cp) postgraduate IT units (INN code) not in the Basic Unit List.

## Elective Units

Select any four Postgraduate units

## Advanced Research Units (Project units)

Students of IT44 are required to complete 48cp of advanced research/project units in the forms of a 48cp Dissertation or two 24cp Projects.

## Postgraduate IT Units

### Unit List:

INN101	Impact of IT
INN120	Corporate Systems
INN122	Organisational Databases
INN124	Information Systems Development
INN180	Computer Games Studies
INN181	Introduction to Games Production
INN210	Databases
INN220	Business Analysis
INN221	Technology Management
INN250	Foundations of Computer Science
INN251	Networks
INN255	Security
INN270	Programming
INN271	The Web
INN272	Interaction Design
INN280	Fundamentals of Game Design
INN311	Enterprise Systems
INN312	Enterprise Systems Applications
INN313	Electronic Commerce Site Development
INN320	Business Process Modelling
INN321	Business Process Management
INN322	Information Systems Consulting
INN330	Information Management
INN331	Management Issues for Information Professionals
INN332	Information Retrieval
INN333	Information Programs
INN335	Information Resources
INN340	Database Design

INN341	Software Development With Oracle
INN342	Enterprise Data Mining and Data Analysis
INN343	Advanced Data Mining and Data Warehousing
INN344	Search Engine Technology
INN345	Mobile Devices
INN346	Enterprise 2.0
INN347	Web 2.0 Applications
INN350	Internet Protocols and Services
INN351	Unix Network Administration
INN352	Network Planning
INN353	Wireless and Mobile Networks
INN355	Cryptology and Protocols
INN365	Systems Programming
INN370	Software Development
INN371	Data Structures and Algorithms
INN372	Agile Software Development
INN373	Web Application Development
INN374	Enterprise Software Architecture
INN381	Modelling and Animation Techniques
INN382	Real Time Rendering Techniques
INN385	Multimedia Systems
INN386	Advanced Multimedia Systems
INN500	PRINCE2 (R) Project Management
INN530	Web Content Reliability
INN531	Information Services
INN532	Information Literacy Education
INN533	Information Organisation
INN540	User Experience
INN550	Computer Forensics
INN570	Internationalisation of Software
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN610	Case Studies in Business Process Management
INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice
INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
INN650	Advanced Network Management
INN651	Security Technologies
INN652	Advanced Cryptology
INN690	Minor Project 1

## FACULTY OF SCIENCE AND TECHNOLOGY

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INN691	Minor Project 2	INN221	Technology Management
INN692	Minor Project 3	INN251	Networks
INN693	Project	INN255	Security
INN694-1	Project 1	INN270	Programming
INN694-2	Project	INN271	The Web
INN695	Major Project	INN272	Interaction Design
INN696-1	Major Project 1		
INN700	Introduction To Research		
INN696-2	Major Project 2		
INN701	Advanced Research Topics		
INN281	Advanced Game Design		
INS040	Professional Experience (Postgraduate)		
INS450	CCNA 1 and 2 Network Fundamentals and Routing		
INS451	CCNA 3 and 4 Lan Switching		
INS452	CCNP1: Building Scalable Internetworks		
INS454	CCNP3: Building Multi Layered Switched Networks		
INS456	Voice Over IP 1		
INS457	CISCO VOIP		

### IT44 - Advanced Research/Project Units

#### Major Study Areas

INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN696-2	Major Project 2

#### Basic Unit List

INN101	Impact of IT
INN120	Corporate Systems
INN122	Organisational Databases
INN124	Information Systems Development
INN180	Computer Games Studies
INN210	Databases
INN220	Business Analysis

## Master of Information Technology (Advanced) (Enterprise Systems) (IT44)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 053123F

**Course duration (full-time):** 2 years

**Course duration (part-time):** 4 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### Overview

Enterprise systems are engineered information systems that consist of applications and associated information, forming the fundamental structure of organisational processes in most large organisations. Enterprise systems provide comprehensive administrative systems and help to automate and streamline business processes.

The major provides you with advanced knowledge that will enable you to specialise in the area of business operations such as logistics and finance. You will build an understanding of enterprise system processes and configuration activities which occur in companies using enterprise systems. You will understand the business activities that these systems support, preparing you for business, technical or system support roles. The course provides you with hands-on experience with successful enterprise systems so that you can put into practice the theory that supports business activities.

This course also seeks to develop logical thinking and the capability to understand and deal with complex systems, within a business management framework.

### Why study this Major?

Enterprise systems have been widely implemented worldwide, particularly in larger organisations. The enterprise system market exceeds US\$78 billion and it has been one of the largest, fastest growing application software industries in the world. Organisations invest substantial resources in acquiring enterprise systems from vendors such as SAP, Mincom and Oracle, and expect positive impacts on their business operations. Thus, there is a need for graduates with strong knowledge of enterprise systems software and effective management of its implementation.

### Career Progression

Careers include business analyst, systems analyst, systems manager or database manager.

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- the Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)
- OR
- evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

### Course completion rules

Students should meet the following requirements before they are able to complete the Masters Advanced program:

- Students are required to complete 192 credit points of units.
- Students are required to complete the specified core unit.
- Students seeking a single area of specialisation must complete the specific unit requirements for a major.
- Students not seeking a single area of specialisation may graduate with no major.
- Students must complete 48 credit points of project or advanced research units.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points, or with a Masters (IT43) after successful completion of an approved 144 credit points.

### Further Information

For further information on this course please contact:

Dr Ross Hayward

Phone: 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### IT44 - MIT (Advanced) (Enterprise Systems)

#### Core

INN500 PRINCE2 (R) Project Management

#### Select Three Units from:

INN311 Enterprise Systems

# FACULTY OF SCIENCE AND TECHNOLOGY

INN312	Enterprise Systems Applications
	In addition, choose between the following:
INN610	Case Studies in Business Process Management
	OR
INN690	Minor Project 1
	OR
	Advanced Reading Enterprise System unit

In addition, select four of the following units:

INN220	Business Analysis
INN320	Business Process Modelling
INN321	Business Process Management
INN340	Database Design
INN341	Software Development With Oracle
INN342	Enterprise Data Mining and Data Analysis
INN343	Advanced Data Mining and Data Warehousing
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN700	Introduction To Research
INN610	Case Studies in Business Process Management
INN374	Enterprise Software Architecture
INN701	Advanced Research Topics

## Elective Units

Select any four Postgraduate Units

## Advanced Research Units (Project Units)

Students of IT44 are required to complete 48cp of advanced research/project units in the form of a 48cp Dissertation or two 24cp Projects.

## Postgraduate IT Units

### Unit List:

INN101	Impact of IT
INN120	Corporate Systems
INN122	Organisational Databases
INN124	Information Systems Development
INN180	Computer Games Studies
INN181	Introduction to Games Production
INN210	Databases
INN220	Business Analysis
INN221	Technology Management
INN250	Foundations of Computer Science
INN251	Networks

INN255	Security
INN270	Programming
INN271	The Web
INN272	Interaction Design
INN280	Fundamentals of Game Design
INN311	Enterprise Systems
INN312	Enterprise Systems Applications
INN313	Electronic Commerce Site Development
INN320	Business Process Modelling
INN321	Business Process Management
INN322	Information Systems Consulting
INN330	Information Management
INN331	Management Issues for Information Professionals
INN332	Information Retrieval
INN333	Information Programs
INN335	Information Resources
INN340	Database Design
INN341	Software Development With Oracle
INN342	Enterprise Data Mining and Data Analysis
INN343	Advanced Data Mining and Data Warehousing
INN344	Search Engine Technology
INN345	Mobile Devices
INN346	Enterprise 2.0
INN347	Web 2.0 Applications
INN350	Internet Protocols and Services
INN351	Unix Network Administration
INN352	Network Planning
INN353	Wireless and Mobile Networks
INN355	Cryptology and Protocols
INN365	Systems Programming
INN370	Software Development
INN371	Data Structures and Algorithms
INN372	Agile Software Development
INN373	Web Application Development
INN374	Enterprise Software Architecture
INN381	Modelling and Animation Techniques
INN382	Real Time Rendering Techniques
INN385	Multimedia Systems
INN386	Advanced Multimedia Systems
INN500	PRINCE2 (R) Project Management
INN530	Web Content Reliability
INN531	Information Services
INN532	Information Literacy Education
INN533	Information Organisation
INN540	User Experience
INN550	Computer Forensics
INN570	Internationalisation of Software

## FACULTY OF SCIENCE AND TECHNOLOGY

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INN600	Advanced Readings 1	INN691	Minor Project 2
INN601	Advanced Readings 2	INN692	Minor Project 3
INN602	Advanced Readings 3	INN693	Project
INN605	Advanced Research 1	INN694-1	Project 1
INN606	Advanced Research 2	INN694-2	Project
INN607	Advanced Research 3	INN695	Major Project
INN610	Case Studies in Business Process Management	INN696-1	Major Project 1
		INN696-2	Major Project 2
INN632-1	Professional Practice		
INN632-2	Professional Practice		
INN632-3	Professional Practice		
INN632-4	Professional Practice		
INN632-5	Professional Practice		
INN632-6	Professional Practice		
INN650	Advanced Network Management		
INN651	Security Technologies		
INN652	Advanced Cryptology		
INN690	Minor Project 1		
INN691	Minor Project 2		
INN692	Minor Project 3		
INN693	Project		
INN694-1	Project 1		
INN694-2	Project		
INN695	Major Project		
INN696-1	Major Project 1		
INN700	Introduction To Research		
INN696-2	Major Project 2		
INN701	Advanced Research Topics		
INN281	Advanced Game Design		
INS040	Professional Experience (Postgraduate)		
INS450	CCNA 1 and 2 Network Fundamentals and Routing		
INS451	CCNA 3 and 4 Lan Switching		
INS452	CCNP1: Building Scalable Internetworks		
INS454	CCNP3: Building Multi Layered Switched Networks		
INS456	Voice Over IP 1		
INS457	CISCO VOIP		

### IT44 - Advanced Research/Project Units

#### Major Study Areas

INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN690	Minor Project 1



## **Master of Information Technology (Advanced) (Executive Information Practice) (IT44)**

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 053123F

**Course duration (full-time):** 2 years

**Course duration (part-time):** 4 years

**Domestic fees (indicative):** 2011: Full fee tuition \$10,000 (indicative) per semester

**International Fees (indicative):** 2011: \$13,750 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### **Overview**

This major is where the MBA meets IT: Master of Business Administration units are incorporated into this course. It is the first Australian qualification designed to meet the needs of mid-career information and IT professionals who are seeking to advance their career opportunities. Very few qualifications provide the opportunity for mid-career professionals to further develop and refine their information and IT skills and knowledge while also having the opportunity to acquire a working knowledge of management practice.

Core units are offered by the areas of IT and business. You are able to study units in marketing, international business, accounting, public administration and evidence-based practice along with information security, systems and network, information management, interaction design, data mining and library and information science.

Those interested in pursuing a Master of Business Administration at QUT are eligible for advanced standing towards the qualification, making it an excellent pathway to QUT's Master of Business Administration (MBA).

### **Why study this Major?**

Australia needs information and IT leaders who will help shape the future of our nation's information-rich and technology-driven economy.

Graduates of this course will possess a comprehensive working knowledge of contemporary management issues, advanced-level information and IT skills and the communication and leadership abilities essential for the executive or management role.

### **Career Progression**

Graduates of Executive Information Practice will take on key positions in middle and high level management in a broad range of industries. While the career outcomes from the major are limited only by the drive and imagination of the graduates, key positions could include chief information

officer, IT program manager, library director, cultural services manager or senior librarian.

### **Entry requirements**

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- the Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)
- OR
- evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

### **Special entry requirements**

Executive information practice major - has core units from the MBA and as such must also meet the MBA entry requirements:

- Demonstrate competency in the English language
- Have a GMAT score of at least 500
- Have at least three years work experience
- At least 10 points from at least two of the three categories
- prior work experience, academic achievement and management aptitude
- For further information please see [www.bus.qut.edu.au](http://www.bus.qut.edu.au).

### **Course completion rules**

Students should meet the following requirements before they are able to complete the Masters Advanced program:

- Students are required to complete 192 credit points of units.
- Students are required to complete the specified core unit.
- Students seeking a single area of specialisation must complete the specific unit requirements for a major.
- Students not seeking a single area of specialisation may graduate with no major.
- Students must complete 48 credit points of project or advanced research units.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### **Early exit options**

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points, or with a Masters (IT43) after

successful completion of an approved 144 credit points.

## Further information

For further information about this course, please contact:

Dr Ross Hayward

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

## IT44 - MIT (Advanced) (Executive Information Practice)

### Core

INN500 PRINCE2 (R) Project Management

### All of the following units:

INN630 Evidence Based Practice

INN631 Executive Coaching

In addition, select any postgraduate (24 credit point) IT units not in the Basic Unit List.

### In addition, select 6 (total of 36cps) of the following units:

INN700 Introduction To Research

GSN401 Managing in the Global Business Environment

GSN403 Understanding Data

GSN404 Financial Statements Analysis

GSN405 Strategic Management

GSN406 Human Resource Management Issues

GSN407 Business Communication

GSN408 Fundamentals of Marketing Management

GSN409 Organisational Behaviour 1

GSN410 Entrepreneurship

GSN412 Business Law 1

GSN413 Financial Management 1

GSN415 Understanding Leadership

GSN491 Economics in Business 1

## Postgraduate IT Units

### Unit List:

INN101 Impact of IT

INN120 Corporate Systems

INN122 Organisational Databases

INN124 Information Systems Development

INN180 Computer Games Studies

INN181 Introduction to Games Production

INN210 Databases

INN220 Business Analysis

INN221 Technology Management

INN250 Foundations of Computer Science

INN251 Networks

INN255 Security

INN270 Programming

INN271 The Web

INN272 Interaction Design

INN280 Fundamentals of Game Design

INN311 Enterprise Systems

INN312 Enterprise Systems Applications

INN313 Electronic Commerce Site Development

INN320 Business Process Modelling

INN321 Business Process Management

INN322 Information Systems Consulting

INN330 Information Management

INN331 Management Issues for Information Professionals

INN332 Information Retrieval

INN333 Information Programs

INN335 Information Resources

INN340 Database Design

INN341 Software Development With Oracle

INN342 Enterprise Data Mining and Data Analysis

INN343 Advanced Data Mining and Data Warehousing

INN344 Search Engine Technology

INN345 Mobile Devices

INN346 Enterprise 2.0

INN347 Web 2.0 Applications

INN350 Internet Protocols and Services

INN351 Unix Network Administration

INN352 Network Planning

INN353 Wireless and Mobile Networks

INN355 Cryptology and Protocols

INN365 Systems Programming

INN370 Software Development

INN371 Data Structures and Algorithms

INN372 Agile Software Development

INN373 Web Application Development

INN374 Enterprise Software Architecture

INN381 Modelling and Animation Techniques

INN382 Real Time Rendering Techniques

INN385 Multimedia Systems

INN386 Advanced Multimedia Systems

INN500 PRINCE2 (R) Project Management

INN530 Web Content Reliability

INN531 Information Services

INN532 Information Literacy Education

INN533 Information Organisation

INN540 User Experience

INN550 Computer Forensics

INN570 Internationalisation of Software

INN600 Advanced Readings 1

INN601 Advanced Readings 2

## FACULTY OF SCIENCE AND TECHNOLOGY

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INN602	Advanced Readings 3	INN255	Security
INN605	Advanced Research 1	INN270	Programming
INN606	Advanced Research 2	INN271	The Web
INN607	Advanced Research 3	INN272	Interaction Design
INN610	Case Studies in Business Process Management		
INN632-1	Professional Practice		
INN632-2	Professional Practice		
INN632-3	Professional Practice		
INN632-4	Professional Practice		
INN632-5	Professional Practice		
INN632-6	Professional Practice		
INN650	Advanced Network Management		
INN651	Security Technologies		
INN652	Advanced Cryptology		
INN690	Minor Project 1		
INN691	Minor Project 2		
INN692	Minor Project 3		
INN693	Project		
INN694-1	Project 1		
INN694-2	Project		
INN695	Major Project		
INN696-1	Major Project 1		
INN700	Introduction To Research		
INN696-2	Major Project 2		
INN701	Advanced Research Topics		
INN281	Advanced Game Design		
INS040	Professional Experience (Postgraduate)		
INS450	CCNA 1 and 2 Network Fundamentals and Routing		
INS451	CCNA 3 and 4 Lan Switching		
INS452	CCNP1: Building Scalable Internetworks		
INS454	CCNP3: Building Multi Layered Switched Networks		
INS456	Voice Over IP 1		
INS457	CISCO VOIP		

### Basic Unit List

INN101	Impact of IT
INN120	Corporate Systems
INN122	Organisational Databases
INN124	Information Systems Development
INN180	Computer Games Studies
INN210	Databases
INN220	Business Analysis
INN221	Technology Management
INN251	Networks

## Master of Information Technology (Advanced) (Games Design) (IT44)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 053123F

**Course duration (full-time):** 2 years

**Course duration (part-time):** 4 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### Overview

This course focuses on developing the design and storytelling skills required to create games and interactive technology. You will have the opportunity to develop and apply these skills to your own discipline area. You will develop advanced project management skills together with the capability to analyse design and requirements appropriate to interactive environments, taking into consideration such aspects as the type of interaction required for your targeted users and the social implications of that interaction. You will also have the opportunity to research and apply the most up-to-date methods and techniques in this discipline. This course allows current industry members to take those skills that they have already acquired and extend them to support career development.

### Why study this Major?

As entertainment technologies improve so do the expectations of the users of these technologies. Entertainment technologies have expanded to other applications such as education, simulation, training and more. Young people are growing up in a world of three-dimensional virtual environments. This course gives people within industries not traditionally related to entertainment the opportunity to develop skills within this area to enhance interactive techniques applicable to their own discipline. It allows members of unrelated industries to take the skills developed over many years in the interactive entertainment industries and apply them within a different context.

### Career Progression

This postgraduate course allows a graduate to learn the process of designing games even when their profession is not in the games industry, e.g. education, training and simulation. A career outcome includes a games or simulation designer.

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- the Australian equivalent of a bachelor's degree in any

discipline with a grade point average of at least 4.5 (on a 7-point scale)

OR

- evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

### Course completion rules

before they are able to complete the Masters Advanced program:

- Students are required to complete 192 credit points of units.
- Students are required to complete the specified core unit.
- Students seeking a single area of specialisation must complete the specific unit requirements for a major.
- Students not seeking a single area of specialisation may graduate with no major.
- Students must complete 48 credit points of project or advanced research units.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points, or with a Masters (IT43) after successful completion of an approved 144 credit points.

### Further Information

For further information about this course, please contact:

Dr Ross Hayward

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### IT44 - MIT (Advanced) (Games Design)

#### Core

INN500 PRINCE2 (R) Project Management

#### All of the following units:

INN180 Computer Games Studies

INN272 Interaction Design

INN280 Fundamentals of Game Design

INN281 Advanced Game Design

**In addition, select 3 of the following units:**

INN181	Introduction to Games Production
INN385	Multimedia Systems
INN386	Advanced Multimedia Systems
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN700	Introduction To Research
KIB201	Concept Development for Game Design and Interactive Media
KIB202	Enabling Immersion
INN381	Modelling and Animation Techniques
INN382	Real Time Rendering Techniques
INN383	AI for Games
MAN281	Mathematics for Computer Graphics
INN701	Advanced Research Topics
INN282	Games Level Design

## Elective Units

Select any four Postgraduate Units.

## Advanced Research Units (Project Units)

Students of IT44 are required to complete 48cp of advanced research/project units in the form of a 48cp Dissertation or two 24cp Projects.

## Postgraduate IT Units

### Unit List:

INN101	Impact of IT
INN120	Corporate Systems
INN122	Organisational Databases
INN124	Information Systems Development
INN180	Computer Games Studies
INN181	Introduction to Games Production
INN210	Databases
INN220	Business Analysis
INN221	Technology Management
INN250	Foundations of Computer Science
INN251	Networks
INN255	Security
INN270	Programming
INN271	The Web
INN272	Interaction Design
INN280	Fundamentals of Game Design
INN311	Enterprise Systems
INN312	Enterprise Systems Applications
INN313	Electronic Commerce Site Development
INN320	Business Process Modelling
INN321	Business Process Management
INN322	Information Systems Consulting

INN330	Information Management
INN331	Management Issues for Information Professionals
INN332	Information Retrieval
INN333	Information Programs
INN335	Information Resources
INN340	Database Design
INN341	Software Development With Oracle
INN342	Enterprise Data Mining and Data Analysis
INN343	Advanced Data Mining and Data Warehousing
INN344	Search Engine Technology
INN345	Mobile Devices
INN346	Enterprise 2.0
INN347	Web 2.0 Applications
INN350	Internet Protocols and Services
INN351	Unix Network Administration
INN352	Network Planning
INN353	Wireless and Mobile Networks
INN355	Cryptology and Protocols
INN365	Systems Programming
INN370	Software Development
INN371	Data Structures and Algorithms
INN372	Agile Software Development
INN373	Web Application Development
INN374	Enterprise Software Architecture
INN381	Modelling and Animation Techniques
INN382	Real Time Rendering Techniques
INN385	Multimedia Systems
INN386	Advanced Multimedia Systems
INN500	PRINCE2 (R) Project Management
INN530	Web Content Reliability
INN531	Information Services
INN532	Information Literacy Education
INN533	Information Organisation
INN540	User Experience
INN550	Computer Forensics
INN570	Internationalisation of Software
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN610	Case Studies in Business Process Management
INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice



INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
INN650	Advanced Network Management
INN651	Security Technologies
INN652	Advanced Cryptology
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN700	Introduction To Research
INN696-2	Major Project 2
INN701	Advanced Research Topics
INN281	Advanced Game Design
INS040	Professional Experience (Postgraduate)
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INS452	CCNP1: Building Scalable Internetworks
INS454	CCNP3: Building Multi Layered Switched Networks
INS456	Voice Over IP 1
INS457	CISCO VOIP

**IT44 - Advanced Research/Project Units****Major Study Areas**

INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN696-2	Major Project 2

## **Master of Information Technology (Advanced) (Games Production) (IT44)**

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 053123F

**Course duration (full-time):** 2 years

**Course duration (part-time):** 4 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### **Overview**

This course focuses on developing managerial skills required to produce games; that is, the management of a team and the production of an interactive project. You will establish an understanding of the production process and the skills relating to the management of a team of people in a creative environment. You will also have the opportunity to gain hands-on experience in this endeavour through the supervision of undergraduate final-year project teams from project inception to completion.

### **Why study this Major?**

As the video games and related industries develop, so does the need for people within those industries, to enhance their skills beyond the technical to production and management. The Games Production stream has been developed to meet the skill sets required at higher management levels. It allows current industry members to take those skills that they have already acquired and extend them to support career development.

### **Career Progression**

Games production is an exciting multibillion dollar emerging industry. Careers include game/simulation developer or game/simulation producer. If you already work in the games or related industries, you could progress your career to management or executive-level positions.

### **Entry requirements**

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- the Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)

OR

- evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

International students must complete the above

requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

### **Course completion rules**

Students should meet the following requirements before they are able to complete the Masters Advanced program:

- Students are required to complete 192 credit points of units.
- Students are required to complete the specified core unit.
- Students seeking a single area of specialisation must complete the specific unit requirements for a major.
- Students not seeking a single area of specialisation may graduate with no major.
- Students must complete 48 credit points of project or advanced research units.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### **Early exit options**

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points, or with a Masters (IT43) after successful completion of an approved 144 credit points.

### **Further Information**

For further information about this course, please contact:

Dr Ross Hayward

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### **IT44 - MIT (Advanced) (Games Production)**

Core	
INN500	PRINCE2 (R) Project Management
All of the following units:	
INN180	Computer Games Studies
INN181	Introduction to Games Production
INN600	Advanced Readings 1
INN601	Advanced Readings 2
In addition, select 3 of the following units:	
INN220	Business Analysis
INN311	Enterprise Systems
INN321	Business Process Management
INN330	Information Management
INN700	Introduction To Research

INN701     Advanced Research Topics

Select any four elective units from the list below:

GSN401     Managing in the Global Business Environment  
GSN405     Strategic Management  
GSN413     Financial Management 1  
GSN415     Understanding Leadership  
GSN416     Business Plans 1  
INN690     Minor Project 1  
INN691     Minor Project 2  
INN692     Minor Project 3  
INN693     Project  
INN694-1   Project 1  
INN694-2   Project

**Advanced Research Units (Project Units)**

Students of IT44 are required to complete 48cp of advanced research/project units in the form of a 48cp Dissertation or two 24cp Projects.

**IT44 - Advanced Research/Project Units**

**Major Study Areas**

INN600     Advanced Readings 1  
INN601     Advanced Readings 2  
INN602     Advanced Readings 3  
INN605     Advanced Research 1  
INN606     Advanced Research 2  
INN607     Advanced Research 3  
INN690     Minor Project 1  
INN691     Minor Project 2  
INN692     Minor Project 3  
INN693     Project  
INN694-1   Project 1  
INN694-2   Project  
INN695     Major Project  
INN696-1   Major Project 1  
INN696-2   Major Project 2

## Master of Information Technology (Advanced) (Information Management) (IT44)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 053123F

**Course duration (full-time):** 2 years

**Course duration (part-time):** 4 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### Overview

The Information Management major provides you with the skill and knowledge to find employment in the information and knowledge management industry. You will gain awareness of the activities in which information management professionals are engaged, in various organisational contexts. You will have the opportunity through electives to tailor your learning to specific contexts such as health services, educational settings, creative industries and information technology.

You will develop skill and knowledge in information management including the alignment of enterprise information and business planning, enterprise information policy, evaluation of information resources and systems, and the design, delivery and evaluation of information services to meet client or organisational needs.

### Why study this Major?

Information is now viewed as one of the most significant assets in an organisation. The ability to obtain and manage information on an ongoing basis is an important component of competitive success. Internal and external information resources are used constantly in any organisation. Information managers help organisations to more effectively interact with and utilise information for business development and success. Information managers require the knowledge and expertise to design, plan, develop, manage and evaluate information services to meet the information needs of their organisation.

### Career Progression

Careers include information broker, information manager, knowledge manager, database manager, webmaster, information architect, information coordinator, policy officer, research analyst, information services manager, document manager, metadata analyst, community information officer or learning resources officer.

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- the Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)
- OR
- evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

### Course completion rules

Students should meet the following requirements before they are able to complete the Masters Advanced program:

- Students are required to complete 192 credit points of units.
- Students are required to complete the specified core unit.
- Students seeking a single area of specialisation must complete the specific unit requirements for a major.
- Students not seeking a single area of specialisation may graduate with no major.
- Students must complete 48 credit points of project or advanced research units.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points, or with a Masters (IT43) after successful completion of an approved 144 credit points.

### Further Information

For further information about this course, please contact:

Dr Ross Hayward

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### IT44 - MIT (Advanced) (Information Management)

#### Core

INN500 PRINCE2 (R) Project Management

#### All of the following units:

INN122 Organisational Databases

## FACULTY OF SCIENCE AND TECHNOLOGY

INN220	Business Analysis
INN255	Security
INN330	Information Management
INN335	Information Resources

In addition, select 2 of the following units:

INN334	Information Issues and Values
INN540	User Experience
INN700	Introduction To Research
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN701	Advanced Research Topics

### Elective Units

Select any four Postgraduate Units.

### Advanced Research Units (Project Units)

Students of IT44 are required to complete 48cp of advanced research/project units in the form of a 48cp Dissertation or two 24cp Projects.

### Postgraduate IT Units

#### Unit List:

INN101	Impact of IT
INN120	Corporate Systems
INN122	Organisational Databases
INN124	Information Systems Development
INN180	Computer Games Studies
INN181	Introduction to Games Production
INN210	Databases
INN220	Business Analysis
INN221	Technology Management
INN250	Foundations of Computer Science
INN251	Networks
INN255	Security
INN270	Programming
INN271	The Web
INN272	Interaction Design
INN280	Fundamentals of Game Design
INN311	Enterprise Systems
INN312	Enterprise Systems Applications
INN313	Electronic Commerce Site Development
INN320	Business Process Modelling
INN321	Business Process Management
INN322	Information Systems Consulting

INN330	Information Management
INN331	Management Issues for Information Professionals
INN332	Information Retrieval
INN333	Information Programs
INN335	Information Resources
INN340	Database Design
INN341	Software Development With Oracle
INN342	Enterprise Data Mining and Data Analysis
INN343	Advanced Data Mining and Data Warehousing
INN344	Search Engine Technology
INN345	Mobile Devices
INN346	Enterprise 2.0
INN347	Web 2.0 Applications
INN350	Internet Protocols and Services
INN351	Unix Network Administration
INN352	Network Planning
INN353	Wireless and Mobile Networks
INN355	Cryptology and Protocols
INN365	Systems Programming
INN370	Software Development
INN371	Data Structures and Algorithms
INN372	Agile Software Development
INN373	Web Application Development
INN374	Enterprise Software Architecture
INN381	Modelling and Animation Techniques
INN382	Real Time Rendering Techniques
INN385	Multimedia Systems
INN386	Advanced Multimedia Systems
INN500	PRINCE2 (R) Project Management
INN530	Web Content Reliability
INN531	Information Services
INN532	Information Literacy Education
INN533	Information Organisation
INN540	User Experience
INN550	Computer Forensics
INN570	Internationalisation of Software
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN610	Case Studies in Business Process Management
INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice



INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
INN650	Advanced Network Management
INN651	Security Technologies
INN652	Advanced Cryptology
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN700	Introduction To Research
INN696-2	Major Project 2
INN701	Advanced Research Topics
INN281	Advanced Game Design
INS040	Professional Experience (Postgraduate)
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INS452	CCNP1: Building Scalable Internetworks
INS454	CCNP3: Building Multi Layered Switched Networks
INS456	Voice Over IP 1
INS457	CISCO VOIP

#### **IT44 - Advanced Research/Project Units**

##### **Major Study Areas**

INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN696-2	Major Project 2

## Master of Information Technology (Advanced) (Library and Information Science) (IT44)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 053123F

**Course duration (full-time):** 2 years

**Course duration (part-time):** 4 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Discipline coordinator:** Dr Helen Partridge

**Campus:** Gardens Point

### Overview

The Library and Information Science major provides graduates with the skills to find employment in the library and information industry. You will acquire the knowledge and expertise required to design, plan, develop, manage and evaluate library and information services to meet the information needs of clients.

This major is offered in a flexible delivery mode, allowing students to complete their studies either face-to-face or online.

### Why study this Major?

Libraries play a vital role in our information society. They help to connect people with the ever changing world of information. Librarians help individuals to more effectively interact with, and use, information in all aspects of their lives. Librarians require the knowledge and expertise to design, plan, develop, manage and evaluate library and information services to meet the information needs of their clients and assist them to become information literate. This course provides the core skills and knowledge required by the successful librarian in today's information- rich and technology-driven age.

### Professional Recognition

Graduates from the specialisation will be eligible for associate membership of the Australian Library and Information Association (ALIA).

### Career Progression

Careers include librarian, information broker, information manager, knowledge manager, database manager, webmaster, information architect, information coordinator, policy officer, research analyst, corporate librarian, information services manager, document manager, web librarian, metadata analyst, specialist liaison librarian, community information officer, cataloguer, digital library coordinator, systems librarian, law librarian, learning

resources officer or library media specialist.

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- the Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)
- OR
- evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

### Special Entry requirements

A bachelor degree in any discipline other than library and information science with a grade point average of at least 4.5 (On a 7 points scale).

### Course completion rules

Students should meet the following requirements before they are able to complete the Masters Advanced program:

- Students are required to complete 192 credit points of units.
- Students are required to complete the specified core unit.
- Students seeking a single area of specialisation must complete the specific unit requirements for a major.
- Students not seeking a single area of specialisation may graduate with no major.
- Students must complete 48 credit points of project or advanced research units.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points, or with a Masters (IT43) after successful completion of an approved 144 credit points.

### Further Information

For further information about this course, please contact:

Ross Hayward or Helen Partridge

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

**IT44 - MIT (Advanced) (Library and Information Science)**

**Core**

INN500	PRINCE2 (R) Project Management OR
INN690	Minor Project 1

**Select all of the following units:**

INN330	Information Management
INN331	Management Issues for Information Professionals
INN332	Information Retrieval
INN333	Information Programs
INN530	Web Content Reliability
INN531	Information Services
INN532	Information Literacy Education
INN533	Information Organisation
INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice
INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
Students who begin a multi-component unit set (eg. INN632), must complete the entire set.	

**Elective Units**

Select any two Postgraduate Units.

**Advanced Research Units (Project units)**

Students of IT44 are required to complete 48cp of advanced research/project units in the form of a 48cp Dissertation or two 24cp Projects.

**Postgraduate IT Units**

**Unit List:**

INN101	Impact of IT
INN120	Corporate Systems
INN122	Organisational Databases
INN124	Information Systems Development
INN180	Computer Games Studies
INN181	Introduction to Games Production
INN210	Databases
INN220	Business Analysis
INN221	Technology Management
INN250	Foundations of Computer Science
INN251	Networks
INN255	Security
INN270	Programming
INN271	The Web

INN272	Interaction Design
INN280	Fundamentals of Game Design
INN311	Enterprise Systems
INN312	Enterprise Systems Applications
INN313	Electronic Commerce Site Development
INN320	Business Process Modelling
INN321	Business Process Management
INN322	Information Systems Consulting
INN330	Information Management
INN331	Management Issues for Information Professionals
INN332	Information Retrieval
INN333	Information Programs
INN335	Information Resources
INN340	Database Design
INN341	Software Development With Oracle
INN342	Enterprise Data Mining and Data Analysis
INN343	Advanced Data Mining and Data Warehousing
INN344	Search Engine Technology
INN345	Mobile Devices
INN346	Enterprise 2.0
INN347	Web 2.0 Applications
INN350	Internet Protocols and Services
INN351	Unix Network Administration
INN352	Network Planning
INN353	Wireless and Mobile Networks
INN355	Cryptology and Protocols
INN365	Systems Programming
INN370	Software Development
INN371	Data Structures and Algorithms
INN372	Agile Software Development
INN373	Web Application Development
INN374	Enterprise Software Architecture
INN381	Modelling and Animation Techniques
INN382	Real Time Rendering Techniques
INN385	Multimedia Systems
INN386	Advanced Multimedia Systems
INN500	PRINCE2 (R) Project Management
INN530	Web Content Reliability
INN531	Information Services
INN532	Information Literacy Education
INN533	Information Organisation
INN540	User Experience
INN550	Computer Forensics
INN570	Internationalisation of Software
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3

## FACULTY OF SCIENCE AND TECHNOLOGY

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INN605	Advanced Research 1	INN694-1	Project 1
INN606	Advanced Research 2	INN694-2	Project
INN607	Advanced Research 3	INN695	Major Project
INN610	Case Studies in Business Process Management	INN696-1	Major Project 1
INN632-1	Professional Practice	INN696-2	Major Project 2
INN632-2	Professional Practice		
INN632-3	Professional Practice		
INN632-4	Professional Practice		
INN632-5	Professional Practice		
INN632-6	Professional Practice		
INN650	Advanced Network Management		
INN651	Security Technologies		
INN652	Advanced Cryptology		
INN690	Minor Project 1		
INN691	Minor Project 2		
INN692	Minor Project 3		
INN693	Project		
INN694-1	Project 1		
INN694-2	Project		
INN695	Major Project		
INN696-1	Major Project 1		
INN700	Introduction To Research		
INN696-2	Major Project 2		
INN701	Advanced Research Topics		
INN281	Advanced Game Design		
INS040	Professional Experience (Postgraduate)		
INS450	CCNA 1 and 2 Network Fundamentals and Routing		
INS451	CCNA 3 and 4 Lan Switching		
INS452	CCNP1: Building Scalable Internetworks		
INS454	CCNP3: Building Multi Layered Switched Networks		
INS456	Voice Over IP 1		
INS457	CISCO VOIP		

### IT44 - Advanced Research/Project Units

#### Major Study Areas

INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project

## Master of Information Technology (Advanced) (Network Management) (IT44)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 053123F

**Course duration (full-time):** 2 years

**Course duration (part-time):** 4 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### Overview

The Network Management major provides the practical skills and the theory to make you a more effective network manager. It offers in-depth study of emerging network management issues such as security, network monitoring and high availability design.

You will gain up-to-date technical skills for the administration and management of computer networks using an environment that is currently used in industry as well as the theory and practical aspects of network administration and management. Network Management graduates are required to plan either new networks or the upgrading of existing networks. You will be exposed to methodologies and procedures that are useful in addressing the issues involved in network planning and management. Ensuring that the network is secure is a theme that is maintained throughout the course.

### Why study this Major?

Computer networks are essential for the running of today's organisations. Employees spend an ever increasing amount of time remote from their individual workspace. This has led to organisations seeking to deploy appropriate networks that allow real-time access to the corporate network anywhere around the world. The scope of the field of data communications and networks is constantly changing. Voice and data networking technologies are converging to provide more advanced systems with additional functionality and efficiencies. To ensure the effective and efficient operation of computer networks, they need to be designed, deployed and administered by competent technical people, which is why the Faculty has a dedicated major in this field.

### Career Progression

Careers include business analyst, systems analyst, systems manager, data communications specialist, network administrator, network manager or Internet professional.

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- the Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)
- OR
- evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

### Course completion rules

Students should meet the following requirements before they are able to complete the Masters Advanced program:

- Students are required to complete 192 credit points of units.
- Students are required to complete the specified core unit.
- Students seeking a single area of specialisation must complete the specific unit requirements for a major.
- Students not seeking a single area of specialisation may graduate with no major.
- Students must complete 48 credit points of project or advanced research units.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points, or with a Masters (IT43) after successful completion of an approved 144 credit points.

### Further Information

For further information about this course, please contact:

Dr Ross Hayward

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### IT44 - MIT (Advanced) (Network Management)

#### Core

INN500 PRINCE2 (R) Project Management

#### All of the following units:

INN350 Internet Protocols and Services



## FACULTY OF SCIENCE AND TECHNOLOGY

INN351	Unix Network Administration
INN352	Network Planning
INN650	Advanced Network Management

In addition, select 3 of the following units:

INN255	Security
INN353	Wireless and Mobile Networks
INN355	Cryptology and Protocols
INN550	Computer Forensics
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN651	Security Technologies
INN652	Advanced Cryptology
INN700	Introduction To Research
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INS452	CCNP1: Building Scalable Internetworks
INS454	CCNP3: Building Multi Layered Switched Networks
INS455	CCNP4: Optimising Converged Networks
INN701	Advanced Research Topics

### Elective Units

Select any four Postgraduate Units.

### Advanced Research Units (Project Units)

Students of IT44 are required to complete 48cp of advanced research/project units in the form of a 48cp Dissertation or two 24cp Projects.

### Postgraduate IT Units

#### Unit List:

INN101	Impact of IT
INN120	Corporate Systems
INN122	Organisational Databases
INN124	Information Systems Development
INN180	Computer Games Studies
INN181	Introduction to Games Production
INN210	Databases
INN220	Business Analysis
INN221	Technology Management
INN250	Foundations of Computer Science
INN251	Networks
INN255	Security
INN270	Programming

INN271	The Web
INN272	Interaction Design
INN280	Fundamentals of Game Design
INN311	Enterprise Systems
INN312	Enterprise Systems Applications
INN313	Electronic Commerce Site Development
INN320	Business Process Modelling
INN321	Business Process Management
INN322	Information Systems Consulting
INN330	Information Management
INN331	Management Issues for Information Professionals
INN332	Information Retrieval
INN333	Information Programs
INN335	Information Resources
INN340	Database Design
INN341	Software Development With Oracle
INN342	Enterprise Data Mining and Data Analysis
INN343	Advanced Data Mining and Data Warehousing
INN344	Search Engine Technology
INN345	Mobile Devices
INN346	Enterprise 2.0
INN347	Web 2.0 Applications
INN350	Internet Protocols and Services
INN351	Unix Network Administration
INN352	Network Planning
INN353	Wireless and Mobile Networks
INN355	Cryptology and Protocols
INN365	Systems Programming
INN370	Software Development
INN371	Data Structures and Algorithms
INN372	Agile Software Development
INN373	Web Application Development
INN374	Enterprise Software Architecture
INN381	Modelling and Animation Techniques
INN382	Real Time Rendering Techniques
INN385	Multimedia Systems
INN386	Advanced Multimedia Systems
INN500	PRINCE2 (R) Project Management
INN530	Web Content Reliability
INN531	Information Services
INN532	Information Literacy Education
INN533	Information Organisation
INN540	User Experience
INN550	Computer Forensics
INN570	Internationalisation of Software
INN600	Advanced Readings 1
INN601	Advanced Readings 2

## FACULTY OF SCIENCE AND TECHNOLOGY

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INN602	Advanced Readings 3	INN693	Project
INN605	Advanced Research 1	INN694-1	Project 1
INN606	Advanced Research 2	INN694-2	Project
INN607	Advanced Research 3	INN695	Major Project
INN610	Case Studies in Business Process Management	INN696-1	Major Project 1
		INN696-2	Major Project 2
INN632-1	Professional Practice		
INN632-2	Professional Practice		
INN632-3	Professional Practice		
INN632-4	Professional Practice		
INN632-5	Professional Practice		
INN632-6	Professional Practice		
INN650	Advanced Network Management		
INN651	Security Technologies		
INN652	Advanced Cryptology		
INN690	Minor Project 1		
INN691	Minor Project 2		
INN692	Minor Project 3		
INN693	Project		
INN694-1	Project 1		
INN694-2	Project		
INN695	Major Project		
INN696-1	Major Project 1		
INN700	Introduction To Research		
INN696-2	Major Project 2		
INN701	Advanced Research Topics		
INN281	Advanced Game Design		
INS040	Professional Experience (Postgraduate)		
INS450	CCNA 1 and 2 Network Fundamentals and Routing		
INS451	CCNA 3 and 4 Lan Switching		
INS452	CCNP1: Building Scalable Internetworks		
INS454	CCNP3: Building Multi Layered Switched Networks		
INS456	Voice Over IP 1		
INS457	CISCO VOIP		

### IT44 - Advanced Research/Project Units

#### Major Study Areas

INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3

## Master of Information Technology (Advanced) (Security) (IT44)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 053123F

**Course duration (full-time):** 2 years

**Course duration (part-time):** 4 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### Overview

This course offers advanced studies in information security, both in the business and technical sense. You are introduced to a range of information security issues and its broad context; the people, processes and technologies involved with interacting in this new online era. You will explore these topics through participation in the form of projects (research related and industry related) and practice in the community (small groups focusing on particular advanced topics). You will be exposed to the research and industry best-practice environment within QUT's Information Security Institute (ISI) through collaboration with its staff and students. Students will graduate with an understanding and appreciation of what it means to be a security professional in contemporary global environments.

### Why study this Major?

IT systems are increasingly used to store, process and exchange information ranging from e-commerce applications to critical infrastructure such as utilities, financial institutions, transport and telecommunications networks. Security breaches are routinely reported in the mainstream media, making security assurance no longer a choice but a requirement. Associated with this increased awareness and organisational compliance requirement is a growth in demand for IT personnel with management expertise and technical skills in information security.

### Career Progression

Careers include information security specialist, information consultant, information assurance professional, information manager and progression to research career in information security.

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- the Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)
- OR

- evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

### Course completion rules

Students should meet the following requirements before they are able to complete the Masters Advanced program:

- Students are required to complete 192 credit points of units.
- Students are required to complete the specified core unit.
- Students seeking a single area of specialisation must complete the specific unit requirements for a major.
- Students not seeking a single area of specialisation may graduate with no major.
- Students must complete 48 credit points of project or advanced research units.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points, or with a Masters (IT43) after successful completion of an approved 144 credit points.

### Further Information

For further information about this course, please contact:

Dr Ross Hayward

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### IT44 - MIT (Advanced) (Security)

#### Core

INN500 PRINCE2 (R) Project Management

#### All of the following units:

INN255 Security

INN651 Security Technologies

#### In addition, select 5 of the following units:

INN355 Cryptology and Protocols

INN550 Computer Forensics

INN600 Advanced Readings 1

## FACULTY OF SCIENCE AND TECHNOLOGY

INN601	Advanced Readings 2	INN280	Fundamentals of Game Design
INN602	Advanced Readings 3	INN311	Enterprise Systems
INN605	Advanced Research 1	INN312	Enterprise Systems Applications
INN606	Advanced Research 2	INN313	Electronic Commerce Site Development
INN607	Advanced Research 3	INN320	Business Process Modelling
INN652	Advanced Cryptology	INN321	Business Process Management
INN690	Minor Project 1	INN322	Information Systems Consulting
INN691	Minor Project 2	INN330	Information Management
INN693	Project	INN331	Management Issues for Information Professionals
INN694-1	Project 1	INN332	Information Retrieval
INN694-2	Project	INN333	Information Programs
INN695	Major Project	INN335	Information Resources
INN696-1	Major Project 1	INN340	Database Design
INN696-2	Major Project 2	INN341	Software Development With Oracle
INN700	Introduction To Research	INN342	Enterprise Data Mining and Data Analysis
GSN440	Risk Management 1	INN343	Advanced Data Mining and Data Warehousing
JSN106	Analytical Methods of Intelligence	INN344	Search Engine Technology
MAN778	Applications of Discrete Mathematics	INN345	Mobile Devices
MGN423	Contemporary Strategic Analysis	INN346	Enterprise 2.0
MGN433	Managing High-Performance Organisations	INN347	Web 2.0 Applications
INN701	Advanced Research Topics	INN350	Internet Protocols and Services
LWN117	Cyber Law and Policy	INN351	Unix Network Administration
<b>Elective Units</b>		INN352	Network Planning
Select any four Postgraduate Units.		INN353	Wireless and Mobile Networks
<b>Advanced Research Units (Project Units)</b>		INN355	Cryptology and Protocols
Students of IT44 are required to complete 48cp of advanced research/project units in the form of a 48cp Dissertation or two 24cp Projects.		INN365	Systems Programming
<b>Postgraduate IT Units</b>		INN370	Software Development
<b>Unit List:</b>		INN371	Data Structures and Algorithms
INN101	Impact of IT	INN372	Agile Software Development
INN120	Corporate Systems	INN373	Web Application Development
INN122	Organisational Databases	INN374	Enterprise Software Architecture
INN124	Information Systems Development	INN381	Modelling and Animation Techniques
INN180	Computer Games Studies	INN382	Real Time Rendering Techniques
INN181	Introduction to Games Production	INN385	Multimedia Systems
INN210	Databases	INN386	Advanced Multimedia Systems
INN220	Business Analysis	INN500	PRINCE2 (R) Project Management
INN221	Technology Management	INN530	Web Content Reliability
INN250	Foundations of Computer Science	INN531	Information Services
INN251	Networks	INN532	Information Literacy Education
INN255	Security	INN533	Information Organisation
INN270	Programming	INN540	User Experience
INN271	The Web	INN550	Computer Forensics
INN272	Interaction Design	INN570	Internationalisation of Software
		INN600	Advanced Readings 1
		INN601	Advanced Readings 2
		INN602	Advanced Readings 3
		INN605	Advanced Research 1

## FACULTY OF SCIENCE AND TECHNOLOGY

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INN606	Advanced Research 2	INN694-2	Project
INN607	Advanced Research 3	INN695	Major Project
INN610	Case Studies in Business Process Management	INN696-1	Major Project 1
INN632-1	Professional Practice	INN696-2	Major Project 2
INN632-2	Professional Practice		
INN632-3	Professional Practice		
INN632-4	Professional Practice		
INN632-5	Professional Practice		
INN632-6	Professional Practice		
INN650	Advanced Network Management		
INN651	Security Technologies		
INN652	Advanced Cryptology		
INN690	Minor Project 1		
INN691	Minor Project 2		
INN692	Minor Project 3		
INN693	Project		
INN694-1	Project 1		
INN694-2	Project		
INN695	Major Project		
INN696-1	Major Project 1		
INN700	Introduction To Research		
INN696-2	Major Project 2		
INN701	Advanced Research Topics		
INN281	Advanced Game Design		
INS040	Professional Experience (Postgraduate)		
INS450	CCNA 1 and 2 Network Fundamentals and Routing		
INS451	CCNA 3 and 4 Lan Switching		
INS452	CCNP1: Building Scalable Internetworks		
INS454	CCNP3: Building Multi Layered Switched Networks		
INS456	Voice Over IP 1		
INS457	CISCO VOIP		

### IT44 - Advanced Research/Project Units

#### Major Study Areas

INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1



## Master of Information Technology (Advanced) (Software Architecture) (IT44)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 053123F

**Course duration (full-time):** 2 years

**Course duration (part-time):** 4 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### Overview

This major will enhance your capabilities as a software developer. It will provide you with an understanding of the issues, structure and technologies used for developing software architectures. The course will provide you with the theoretical and practical skills needed to develop enterprise critical applications using state-of-the-art technologies. A comparative technology approach is taken, including an analysis of how software development technologies have evolved to date, in order to identify common themes and to better enable you to comprehend and critically evaluate future software technology offerings.

### Why study this Major?

A software architect is responsible for the high-level design and structure of an IT system. The systems developed by a software architect form a key part of the critical infrastructure of an organisation and the architect must balance a wide range of issues such as response time, portability, scalability and availability when designing solutions for a client. Consequently the software architect needs a thorough understanding of advanced software development techniques and technologies and how to take advantage of modern development environments and languages.

Understanding how and why programming approaches enable greater efficiency and flexibility is essential for graduates working in the IT industry. There are a wide variety of technologies available for developing software applications and they are continuing to evolve at a rapid pace.

### Career Progression

Careers include business analyst, electronic commerce developer, internet professional, multimedia designer, senior programmer, software engineer or systems programmer.

### Entry requirements

To be eligible for this Masters Coursework program, students must meet one of the following criteria:

- the Australian equivalent of a bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)
- OR
- evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

International students must complete the above requirements and also achieve an IELTS overall band score of 6.5 or more with no sub-band below 6.0.

International students with an IELTS overall band score between 6.0 and 6.5 with no sub-band below 5.0 are permitted to complete communication units offered by QUT International College as elective units within their Masters degree. These units must be successfully completed in the first semester of the Masters program.

### Course completion rules

Students should meet the following requirements before they are able to complete the Masters Advanced program:

- Students are required to complete 192 credit points of units.
- Students are required to complete the specified core unit.
- Students seeking a single area of specialisation must complete the specific unit requirements for a major.
- Students not seeking a single area of specialisation may graduate with no major.
- Students must complete 48 credit points of project or advanced research units.
- Students may be allowed to take up to four units of electives. These units may be selected from postgraduate units outside of the Faculty of Science and Technology.

### Early exit options

Students enrolled in this course may be eligible to exit their courses with a Graduate Certificate (IT85), after successful completion of an approved 48 credit points, or with a Graduate Diploma (IT37), after successful completion of an approved 96 credit points, or with a Masters (IT43) after successful completion of an approved 144 credit points.

### Further Information

For further information about this course, please contact:

Dr Ross Hayward

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### IT44 - MIT (Advanced) (Software Architecture)

#### Core

INN500 PRINCE2 (R) Project Management

#### All of the following units:

INN371 Data Structures and Algorithms

## FACULTY OF SCIENCE AND TECHNOLOGY

INN372	Agile Software Development	INN321	Business Process Management
INN374	Enterprise Software Architecture	INN322	Information Systems Consulting
INN570	Internationalisation of Software	INN330	Information Management
In addition, select 3 of the following units:		INN331	Management Issues for Information Professionals
INN271	The Web	INN332	Information Retrieval
INN313	Electronic Commerce Site Development	INN333	Information Programs
INN365	Systems Programming	INN335	Information Resources
INN370	Software Development	INN340	Database Design
INN373	Web Application Development	INN341	Software Development With Oracle
INN600	Advanced Readings 1	INN342	Enterprise Data Mining and Data Analysis
INN601	Advanced Readings 2	INN343	Advanced Data Mining and Data Warehousing
INN602	Advanced Readings 3	INN344	Search Engine Technology
INN605	Advanced Research 1	INN345	Mobile Devices
INN606	Advanced Research 2	INN346	Enterprise 2.0
INN607	Advanced Research 3	INN347	Web 2.0 Applications
INN700	Introduction To Research	INN350	Internet Protocols and Services
INN701	Advanced Research Topics	INN351	Unix Network Administration
Elective Units		INN352	Network Planning
Select any four Postgraduate Units.		INN353	Wireless and Mobile Networks
Advanced Research Units (Project Units)		INN355	Cryptology and Protocols
Students of IT44 are required to complete 48cp of advanced research/project units in the form of a 48cp Dissertation or two 24cp Projects.		INN365	Systems Programming
Postgraduate IT Units		INN370	Software Development
Unit List:		INN371	Data Structures and Algorithms
INN101	Impact of IT	INN372	Agile Software Development
INN120	Corporate Systems	INN373	Web Application Development
INN122	Organisational Databases	INN374	Enterprise Software Architecture
INN124	Information Systems Development	INN381	Modelling and Animation Techniques
INN180	Computer Games Studies	INN382	Real Time Rendering Techniques
INN181	Introduction to Games Production	INN385	Multimedia Systems
INN210	Databases	INN386	Advanced Multimedia Systems
INN220	Business Analysis	INN500	PRINCE2 (R) Project Management
INN221	Technology Management	INN530	Web Content Reliability
INN250	Foundations of Computer Science	INN531	Information Services
INN251	Networks	INN532	Information Literacy Education
INN255	Security	INN533	Information Organisation
INN270	Programming	INN540	User Experience
INN271	The Web	INN550	Computer Forensics
INN272	Interaction Design	INN570	Internationalisation of Software
INN280	Fundamentals of Game Design	INN600	Advanced Readings 1
INN311	Enterprise Systems	INN601	Advanced Readings 2
INN312	Enterprise Systems Applications	INN602	Advanced Readings 3
INN313	Electronic Commerce Site Development	INN605	Advanced Research 1
INN320	Business Process Modelling	INN606	Advanced Research 2
		INN607	Advanced Research 3
		INN610	Case Studies in Business Process Management
		INN632-1	Professional Practice

INN632-2	Professional Practice
INN632-3	Professional Practice
INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
INN650	Advanced Network Management
INN651	Security Technologies
INN652	Advanced Cryptology
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN700	Introduction To Research
INN696-2	Major Project 2
INN701	Advanced Research Topics
INN281	Advanced Game Design
INS040	Professional Experience (Postgraduate)
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INS452	CCNP1: Building Scalable Internetworks
INS454	CCNP3: Building Multi Layered Switched Networks
INS456	Voice Over IP 1
INS457	CISCO VOIP

#### **IT44 - Advanced Research/Project Units**

##### **Major Study Areas**

INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN696-2	Major Project 2

## **Master of Information Technology (Non-IT Graduates) (IT45)**

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 003776E

**Course duration (full-time):** 3 semesters

**Course duration (part-time):** 6 semesters

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Total credit points:** 144

**Course coordinator:** Dr Ernest Foo

**Campus:** Gardens Point

### **Potential Careers:**

Business Analyst, Data Communications Specialist, Database Manager, Electronic Commerce Developer, Internet Professional, Network Administrator, Network Manager, Programmer, Software Engineer, Systems Analyst, Systems Manager, Systems Programmer.

## Master of Information Technology (Advanced) (IT48)

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 053123F

**Course duration (full-time):** 2 years (4 semesters)

**Course duration (part-time):** 4 years (8 semesters)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ernest Foo

**Campus:** Gardens Point

### IT48 Master of Information Technology (Advanced)

**Requirements - 16 units (192 credit points), consisting of:**

- INN500 PRINCE2 (R) Project Management
- Minimum 7 x Advanced Level 1 Units (including INN500)
- Minimum 1 x Advanced Level 2 Units
- Maximum 3 x Postgraduate level Elective Units selected from outside the Faculty, in consultation with the Course Coordinator

### IT35/40/48 v1 Master of Information Technology (IT Graduates)

#### Course Structure 2009

From semester one, 2009 this course will not be available for commencing students. IT35 will only be available for continuing students. Please contact enquiry.scitech@qut.edu.au for any enquiries.

#### Compulsory Unit\*

- INN500 PRINCE2 (R) Project Management
- Only for students who commenced Semester 2, 2006 or later

#### Advanced Level 1 Units

- INN272 Interaction Design
- INN280 Fundamentals of Game Design
- INN281 Advanced Game Design
- INN313 Electronic Commerce Site Development
- INN312 Enterprise Systems Applications
- INN321 Business Process Management
- INN322 Information Systems Consulting
- INN342 Enterprise Data Mining and Data Analysis
- INN385 Multimedia Systems
- INN500 PRINCE2 (R) Project Management
- INN371 Data Structures and Algorithms
- INN365 Systems Programming

- INN370 Software Development
- INS452 CCNP1: Building Scalable Internetworks
- INN352 Network Planning
- INN373 Web Application Development
- INS454 CCNP3: Building Multi Layered Switched Networks
- INN353 Wireless and Mobile Networks
- INN374 Enterprise Software Architecture
- INN381 Modelling and Animation Techniques
- INS455 CCNP4: Optimising Converged Networks
- INN181 Introduction to Games Production
- INS456 Voice Over IP 1
- INS453 CCNP 2: Building Multi Layered Switched Networks
- INS457 Voice Over IP 2
- Project - 12 and 24 credit points (See Project Units for codes)

#### Advanced Level 2 Units

- INN700 Introduction To Research
- INN610 Case Studies in Business Process Management
- INN386 Advanced Multimedia Systems
- INN382 Real Time Rendering Techniques
- INN652 Advanced Cryptology
- INN570 Internationalisation of Software
- INN650 Advanced Network Management
- INN600 Advanced Readings 1
- INN601 Advanced Readings 2
- INN602 Advanced Readings 3
- INN605 Advanced Research 1
- INN606 Advanced Research 2
- INN607 Advanced Research 3
- INN701 Advanced Research Topics

#### Project Units

- INN690 Minor Project 1
- INN691 Minor Project 2
- INN692 Minor Project 3
- INN693 Project
- INN694-1 Project 1
- INN694-2 Project
- INN695 Major Project
- INN696-1 Major Project 1
- INN696-2 Major Project 2

#### Intermediate Level Units

With the approval of the Course Coordinator, students seeking skills in a new IT specialisation can select up to two (2) units from the following list of units.



INN271	The Web
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INN341	Software Development With Oracle
INN311	Enterprise Systems
INN340	Database Design
INN330	Information Management
INN335	Information Resources
INN372	Agile Software Development
INN350	Internet Protocols and Services
INN351	Unix Network Administration
INN255	Security
INN355	Cryptology and Protocols
INN370	Software Development

## **Master of Business Process Management (IT53)**

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 062622A

**Course duration (full-time):** 1.5 years

**Course duration (part-time):** 3 years

**Domestic fees (indicative):** 2011: Full fee tuition \$7,875 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February, July

**International Entry:** February, July

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Wasana Bandara

**Campus:** Gardens Point

### **Course Overview**

The Master of Business Process Management will provide graduates with the skills and knowledge to create and align information systems to effectively support business and enable business strategy.

The program examines business-IT alignment issues through appropriate theory and skill development, and provides career enhancement opportunities into senior management and governance roles.

Students may undertake study in the areas of corporate systems and business process management, IT professional services (including project management and IT consulting), enterprise architecture and systems, and information and knowledge management within business processes.

### **Entry Requirements**

A bachelor degree with a grade point average of at least 4.5 (on a 7-point scale) **AND** demonstrated competence in the basic skills and concepts of personal or office computer usage.

### **Course Structure**

Students may be eligible to receive a Graduate Certificate in Business Process Management after completing 48 credit points (4 units) consisting of the four specified units.

Students may also be eligible to receive a Graduate Certificate in Corporate Systems Management after completing 48 credit points (4 units) consisting of the four specified units.

### **Unit Incompatibility/Translation Information**

Details on the translation and incompatibility of old and new units is located here:

Postgraduate 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.

### **Further Information**

For further information about this course, please contact:

Dr Wasana Bandara

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

### **Master of Business Process Management (2010 & 2011)**

#### **Non-IT graduates Basic Units 4 only**

INN120	Corporate Systems
INN101	Impact of IT
INN122	Organisational Databases
INN500	PRINCE2 (R) Project Management
INN124	Information Systems Development
INN220	Business Analysis
INN221	Technology Management

#### **IT graduates Gateway Units 4 only**

INN700	Introduction To Research
INN311	Enterprise Systems
INN340	Database Design
INN312	Enterprise Systems Applications
INN221	Technology Management
INN322	Information Systems Consulting
INN330	Information Management
INN500	PRINCE2 (R) Project Management

#### **Block B Core Units 4 Minimum**

INN323	Smart Services
INN610	Case Studies in Business Process Management
INN331	Management Issues for Information Professionals
INN321	Business Process Management
INN320	Business Process Modelling
INN690	Minor Project 1

#### **Block C Elective Units 24cp Minimum**

- 12 cp FIT industry or research project
- 24 cp FIT industry or research project
- 48 cp FIT industry or research project
- 12 cp QUT post-graduate elective units

#### **Grad Cert Business Process Management IT61 exit point only**

INN311	Enterprise Systems
INN610	Case Studies in Business Process Management
INN321	Business Process Management
INN320	Business Process Modelling

**Grad Cert Corporate Systems Management IT62 exit point only**

INN331	Management Issues for Information Professionals
INN690	Minor Project 1
AND	Students must choose 2 of the following units:
INN120	Corporate Systems
INN101	Impact of IT
INN122	Organisational Databases
INN500	PRINCE2 (R) Project Management
INN124	Information Systems Development
INN220	Business Analysis
INN221	Technology Management

**Master of Business Process Management (2009)**

**IT graduates Gateway Units 4 only**

INN700	Introduction To Research
INN311	Enterprise Systems
INN340	Database Design
INN312	Enterprise Systems Applications
INN221	Technology Management
INN322	Information Systems Consulting
INN330	Information Management
INN500	IT Project Management

**Non-IT graduates Basic Units 4 only**

INN120	Corporate Systems
INN101	Impact of IT
INN122	Organisational Databases
INN123	Project Management Practice
INN124	Information Systems Development
INN220	Business Analysis
INN221	Technology Management

**Block B Core Units 4 Minimum**

INN323	Smart Services
INN610	Case Studies in Enterprise Systems
INN331	Management Issues for Information Professionals
INN321	Business Process Management
INN320	Business Process Modelling
	Project Unit (Unit code yet to be finalised)

**Block C Elective Units 24cp Minimum**

- 12 cp FIT industry or research project
- 24 cp FIT industry or research project
- 48 cp FIT industry or research project
- 12 cp QUT post-graduate elective units

**Grad Cert Business Process Management IT61 exit point**

**only**

INN311	Enterprise Systems
INN610	Case Studies in Enterprise Systems
INN321	Business Process Management
INN320	Business Process Modelling

**Grad Cert Corporate Systems Management IT62 exit point only**

INN331	Management Issues for Information Professionals
	Project Unit (Unit code yet to be finalised)
AND	Students must choose 2 of the following units:
INN120	Corporate Systems
INN101	Impact of IT
INN122	Organisational Databases
INN123	Project Management Practice
INN124	Information Systems Development
INN220	Business Analysis
INN221	Technology Management

**Postgraduate IT Units**

**Unit List:**

INN101	Impact of IT
INN120	Corporate Systems
INN122	Organisational Databases
INN124	Information Systems Development
INN180	Computer Games Studies
INN181	Introduction to Games Production
INN210	Databases
INN220	Business Analysis
INN221	Technology Management
INN250	Foundations of Computer Science
INN251	Networks
INN255	Security
INN270	Programming
INN271	The Web
INN272	Interaction Design
INN280	Fundamentals of Game Design
INN311	Enterprise Systems
INN312	Enterprise Systems Applications
INN313	Electronic Commerce Site Development
INN320	Business Process Modelling
INN321	Business Process Management
INN322	Information Systems Consulting
INN330	Information Management
INN331	Management Issues for Information Professionals
INN332	Information Retrieval
INN333	Information Programs

## FACULTY OF SCIENCE AND TECHNOLOGY

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INN335	Information Resources	INN652	Advanced Cryptology
INN340	Database Design	INN690	Minor Project 1
INN341	Software Development With Oracle	INN691	Minor Project 2
INN342	Enterprise Data Mining and Data Analysis	INN692	Minor Project 3
INN343	Advanced Data Mining and Data Warehousing	INN693	Project
INN344	Search Engine Technology	INN694-1	Project 1
INN345	Mobile Devices	INN694-2	Project
INN346	Enterprise 2.0	INN695	Major Project
INN347	Web 2.0 Applications	INN696-1	Major Project 1
INN350	Internet Protocols and Services	INN700	Introduction To Research
INN351	Unix Network Administration	INN696-2	Major Project 2
INN352	Network Planning	INN701	Advanced Research Topics
INN353	Wireless and Mobile Networks	INN281	Advanced Game Design
INN355	Cryptology and Protocols	INS040	Professional Experience (Postgraduate)
INN365	Systems Programming	INS450	CCNA 1 and 2 Network Fundamentals and Routing
INN370	Software Development	INS451	CCNA 3 and 4 Lan Switching
INN371	Data Structures and Algorithms	INS452	CCNP1: Building Scalable Internetworks
INN372	Agile Software Development	INS454	CCNP3: Building Multi Layered Switched Networks
INN373	Web Application Development	INS456	Voice Over IP 1
INN374	Enterprise Software Architecture	INS457	CISCO VOIP
INN381	Modelling and Animation Techniques		
INN382	Real Time Rendering Techniques		
INN385	Multimedia Systems		
INN386	Advanced Multimedia Systems		
INN500	PRINCE2 (R) Project Management		
INN530	Web Content Reliability		
INN531	Information Services		
INN532	Information Literacy Education		
INN533	Information Organisation		
INN540	User Experience		
INN550	Computer Forensics		
INN570	Internationalisation of Software		
INN600	Advanced Readings 1		
INN601	Advanced Readings 2		
INN602	Advanced Readings 3		
INN605	Advanced Research 1		
INN606	Advanced Research 2		
INN607	Advanced Research 3		
INN610	Case Studies in Business Process Management		
INN632-1	Professional Practice		
INN632-2	Professional Practice		
INN632-3	Professional Practice		
INN632-4	Professional Practice		
INN632-5	Professional Practice		
INN632-6	Professional Practice		
INN650	Advanced Network Management		
INN651	Security Technologies		

## Master of Information Technology (Research) (IT60)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 020309B

**Course duration (full-time):** 1.5 years or 3 semesters

**Course duration (part-time):** 3 years or 6 semesters

**Domestic fees (indicative):** Aust citizens or PRs will be awarded an RTS/RTA place or a QUT sponsorship for tuition fees. If you exceed the max time, you will be charged - 2011: \$9,750 per semester (indicative)

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Domestic Entry:** At any time

**International Entry:** At any time

**Total credit points:** 144

**Course coordinator:** Associate Professor Terry Walsh

**Campus:** Gardens Point

### Course Overview

The Master of Information Technology (Research) provides specialist education in information technology through a program that involves either an original contribution to knowledge or an original application of existing knowledge.

Students choose a research topic from recognised areas of research concentration within the Faculty. Research can be carried out in a research centre of the Faculty, in the student's place of employment or in a sponsoring institution.

### Entry Requirements

To be eligible for this course, applicants must have:

- an approved degree in information technology from a recognised tertiary institution or an equivalent qualification, with a grade point average of 5 (on a 7-point scale), **or**
- an approved degree from a recognised tertiary institution plus evidence of professional experience and skills to satisfy the Academic Board that the applicant possesses the capacity to pursue the course of study. The evidence should include details of any project or research activities undertaken.

In addition to assessing qualifications, the Faculty must also be satisfied that adequate supervision and resources are available to support the applicant's proposed research.

### Research Areas

Areas of research interest and contact details can be obtained from the Faculty website

### Course Structure

Students entering the degree with second-class honours division A (or better) in an IT-related course will often complete the degree in one year full-time. The length of the program is generally expected to be 18 months full-time (including six months of provisional registration) or three

years part-time (including one year of provisional registration).

Assessment for this research masters is based on a program of supervised research and investigation, culminating in a thesis.

Programs may include some coursework in support of the conduct of research and preparation of a thesis. Candidates are required to have regular, face-to-face interaction with supervisors and to participate in University scholarly activities such as research seminars, teaching and publication.

### Further Information

For further information about this course, please contact:

Terry Walsh

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

### Course structure

#### Full-time Course Structure

A program of research and investigation developed in conjunction with the Principal

Supervisor and approved by the Faculty Research Committee (Workload equivalent to 48 credit points per semester)

#### Part-time Course Structure

A program of research and investigation developed in conjunction with the Principal

Supervisor and approved by the Faculty Research Committee (Workload equivalent to 24 credit points per semester)

### Potential Careers:

Business Analyst, Computer Games Developer, Data Communications Specialist, Database Manager, Electronic Commerce Developer, Internet Professional, Network Administrator, Network Manager, Programmer, Software Engineer, Systems Analyst, Systems Manager, Systems Programmer.



## **Master of Information Management(refer to IT43) (IT70)**

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 053705F

**Course duration (full-time):** 3 semesters

**Course duration (part-time):** 6 semesters

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Assumed knowledge:** See Entry Requirements

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 144

**Course coordinator:** Dr Helen Partridge

**Campus:** Gardens Point

### **Course is under review**

From semester one, 2009 this course will not be available for commencing students. IT70 will only be available for continuing students. New students - please refer to IT43. Please contact [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au) for any enquiries.

### **Course Overview**

This program provides graduates with the skills to find employment in a broad spectrum of information work in public, academic and special libraries and within corporate and government information management contexts. Students will come to understand and manage the complexities of information which impact on society.

### **Entry Requirements**

To be eligible for this course, students must have demonstrated competence in the basic skills and concepts of personal or office computer usage and must meet one of the following criteria:

- a bachelor degree in a discipline other than library or information studies with a grade point average of at least 4.5 (on a 7-point scale) **OR**
- evidence of recognised prior learning (e.g. at least five years of relevant full-time work experience).

### **Course Structure**

With the availability of a nested graduate diploma, students in the Master of Information Management may be eligible to receive a Graduate Diploma in Information Management (IT72), after completing 96 credit points (8 units), consisting of eight specified units in a concentrated area of study.

### **Professional Recognition**

The Master of Information Management is professionally recognised by the Australian Library and Information Association (ALIA).

### **Unit Incompatibility/Translation Information**

Details on the translation and incompatibility of old and new units is located here:

Postgraduate 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

### **Further Information**

For further information about this course, please contact:

Dr Helen Partridge

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

## **IT70 - Master of Information Management - Full-time (2009)**

### **Course Structure 2009**

From semester one, 2009 this course will not be available for commencing students. IT70 will only be available for continuing students. New students - please refer to IT43. Please contact [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au) for any enquiries.

#### **Year 1, Semester 1**

INN331	Management Issues for Information Professionals
INN333	Information Programs
INN335	Information Resources
INN632-1	Professional Practice
INN632-2	Professional Practice

#### **Year 1, Semester 2**

INN533	Information Organisation
INN531	Information Services
INN330	Information Management
INN632-3	Professional Practice
INN632-4	Professional Practice

#### **Year 2, Semester 1**

INN530	Web Content Reliability
INN532	Information Literacy Education
INN500	PRINCE2 (R) Project Management
INN632-5	Professional Practice
INN632-6	Professional Practice

## **IT70 - Master of Information Management - Part-time (2009)**

### **Course Structure 2009**

From semester one, 2009 this course will not be available for commencing students. IT70 will only be available for continuing students. New students - please refer to IT43. Please contact [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au) for any enquiries.

#### **Year 1, Semester 1**

INN335	Information Resources
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INN122 Organisational Databases  
INN632-1 Professional Practice

**Year 1, Semester 2**

INN330 Information Management  
INN533 Information Organisation  
INN632-2 Professional Practice

**Year 2, Semester 1**

INN331 Management Issues for Information Professionals  
INN333 Information Programs  
INN632-3 Professional Practice

**Year 2, Semester 2**

INN531 Information Services  
Elective  
INN632-4 Professional Practice

**Year 3, Semester 1**

INN530 Web Content Reliability  
INN532 Information Literacy Education  
INN632-5 Professional Practice

**Year 3, Semester 2**

INN690 Minor Project 1  
Students who choose to undertake ITS010 Cooperative Education Program substitute ITN370 for this unit  
INN632-6 Professional Practice

**IT70 - Master of Information Management - Full-time (2008)**

From semester one, 2009 this course will not be available for commencing students. IT70 will only be available for continuing students. New students - please refer to IT43. Please contact enquiry.scitech@qut.edu.au for any enquiries.

**Year 1, Semester 1**

ITN316 Digital Library Systems  
ITN274 Management Issues for Info Professionals  
ITN362 Organisational Databases  
ITN322 Information Resources  
ITN280-1 Professional Practice  
ITN280-2 Professional Practice

**Year 1, Semester 2**

ITN275 Information Organisation  
ITN276 Information Services  
ITN266 Information Management  
ITN319 Records Systems  
ITN280-3 Professional Practice

ITN280-4 Professional Practice

**Year 2, Semester 1**

ITN278 Web Content Reliability  
ITN279 Information Literacy Education  
ITN370 Project  
Students who choose to undertake ITS010 Cooperative Education Program substitute for ITN370.  
ITN280-5 Professional Practice  
ITN280-6 Professional Practice

**IT70 - Master of Information Management - Part-time (2008)**

From semester one, 2009 this course will not be available for commencing students. IT70 will only be available for continuing students. New students - please refer to IT43. Please contact enquiry.scitech@qut.edu.au for any enquiries.

**Year 1, Semester 1**

ITN322 Information Resources  
ITN362 Organisational Databases  
ITN280-1 Professional Practice

**Year 1, Semester 2**

ITN266 Information Management  
ITN275 Information Organisation  
ITN280-2 Professional Practice

**Year 2, Semester 1**

ITN274 Management Issues for Info Professionals  
ITN316 Digital Library Systems  
ITN280-3 Professional Practice

**Year 2, Semester 2**

ITN276 Information Services  
ITN319 Records Systems  
ITN280-4 Professional Practice

**Year 3, Semester 1**

ITN278 Web Content Reliability  
ITN279 Information Literacy Education  
ITN280-5 Professional Practice

**Year 3, Semester 2**

ITN370 Project  
Students who choose to undertake ITS010 Cooperative Education Program substitute ITN370 for this unit  
ITN280-6 Professional Practice

**Potential Careers:**

Administrator, Information Officer, Librarian.

**Doctor of Information Technology (IT80)****Year offered:** 2011**Admissions:** No**CRICOS code:** 063035A**Course duration (full-time):** 3 years**Course duration (part-time):** 6 years**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester**International Fees (indicative):** 2011: \$11,125 (indicative) per semester**International Entry:** February and July**Course coordinator:** Associate Professor Shlomo Geva**Campus:** Gardens Point**Course Overview**

The Doctor of Information Technology is a professional doctorate designed for candidates to contribute towards professional practice and is appropriate for those wishing to pursue a problem within their workplace expertise. The focal problem in the professional doctorate is an application of theory to an existing significant industry problem.

**Entry Requirements**

Industry experience in a field relevant to the professional doctorate and possess one of the following:

- a four-year degree or its equivalent with first-class or second-class honours division A, or
- a masters degree, or
- a three-year bachelor degree and industry experience, or
- an equivalent combination of experience and/or education and training.

Students with exemplary professional practice who do not meet one of the above criteria may still be eligible to apply and should consult the course coordinator. Before submitting an application for enrolment, potential candidates should consult the course coordinator for assistance with preparation of the appropriate application form concerning eligibility and special interests.

**Course Structure**

The degree consists of 288 credit points of which up to 96 credit points are coursework, and the balance is research. Students are expected to develop a high level of research skill and analysis and make an original contribution to knowledge and professional practice. The Doctor of Information Technology will provide focused research and coursework studies in the IT's research areas.

**Research Area**

Areas of research interest and contact details can be obtained from the Faculty website.

**Further Information**

For further information about this course, please contact:

Associate Professor Shlomo Geva

Visit [www.scitech.qut.edu.au](http://www.scitech.qut.edu.au)Email [research.scitech@qut.edu.au](mailto:research.scitech@qut.edu.au)

Phone +61 7 3138 1000

**IT81 - course structure - 2011****Notes**

This is an indicative course structure only. Students should discuss their program with the Course Coordinator.

**Year 1, Semester 1**

INNXXX PG coursework elective unit

INNXXX PG coursework elective unit

INNXXX PG coursework elective unit

INN690 Minor Project 1

Allows you an opportunity to extend your knowledge in related fields, improve your understanding of project management, develop venture capital, leadership competencies or to lead research groups.

Coursework should normally be completed within the first year, subject to unit availability. Variations to this would be made in consultation with your supervisory team.

**Year 1, Semester 2**INN701 Advanced Research Topics  
A literature review of the related theory.INN691 Minor Project 2  
A literature review of the relevant research methods and approaches that may be of use.INN692 Minor Project 3  
A pilot study of the selected theory and method to a subset of the problem in order to test the efficacy of the methods and theories selected.INN700 Introduction To Research  
Students construct an integrated research proposal.**Year 2 to Year 3****Computer Science**

IFT821 Thesis

**Information Systems**

IFT822 Thesis

**IT81 - course structure with two 96 cps thesis****Notes**

This is an indicative course structure only. Students should discuss their program with the Course Coordinator.

**Year 1, Semester 1**

INNXXX PG coursework elective unit

INNXXX PG coursework elective unit

INNXXX PG coursework elective unit

INN690 Minor Project 1

Allows you an opportunity to extend your knowledge in related fields, improve your understanding of project management, develop venture capital, leadership competencies or to lead research groups.

Coursework should normally be completed within the first year, subject to unit availability. Variations to this would be made in consultation with your supervisory team.

#### Year 1, Semester 2

INN701	Advanced Research Topics
	A literature review of the related theory.
INN691	Minor Project 2
	A literature review of the relevant research methods and approaches that may be of use.
INN692	Minor Project 3
	A pilot study of the selected theory and method to a subset of the problem in order to test the efficacy of the methods and theories selected.
INN700	Introduction To Research
	Student constructs an integrated research proposal.

#### Year 2 to Year 3

#### Computer Science

IFT821 Thesis

#### Information Systems

IFT822 Thesis

#### Postgraduate IT Units

#### Unit List:

INN101	Impact of IT
INN120	Corporate Systems
INN122	Organisational Databases
INN124	Information Systems Development
INN180	Computer Games Studies
INN181	Introduction to Games Production
INN210	Databases
INN220	Business Analysis
INN221	Technology Management
INN250	Foundations of Computer Science
INN251	Networks
INN255	Security
INN270	Programming
INN271	The Web
INN272	Interaction Design
INN280	Fundamentals of Game Design
INN311	Enterprise Systems
INN312	Enterprise Systems Applications
INN313	Electronic Commerce Site Development

INN320	Business Process Modelling
INN321	Business Process Management
INN322	Information Systems Consulting
INN330	Information Management
INN331	Management Issues for Information Professionals
INN332	Information Retrieval
INN333	Information Programs
INN335	Information Resources
INN340	Database Design
INN341	Software Development With Oracle
INN342	Enterprise Data Mining and Data Analysis
INN343	Advanced Data Mining and Data Warehousing
INN344	Search Engine Technology
INN345	Mobile Devices
INN346	Enterprise 2.0
INN347	Web 2.0 Applications
INN350	Internet Protocols and Services
INN351	Unix Network Administration
INN352	Network Planning
INN353	Wireless and Mobile Networks
INN355	Cryptology and Protocols
INN365	Systems Programming
INN370	Software Development
INN371	Data Structures and Algorithms
INN372	Agile Software Development
INN373	Web Application Development
INN374	Enterprise Software Architecture
INN381	Modelling and Animation Techniques
INN382	Real Time Rendering Techniques
INN385	Multimedia Systems
INN386	Advanced Multimedia Systems
INN500	PRINCE2 (R) Project Management
INN530	Web Content Reliability
INN531	Information Services
INN532	Information Literacy Education
INN533	Information Organisation
INN540	User Experience
INN550	Computer Forensics
INN570	Internationalisation of Software
INN600	Advanced Readings 1
INN601	Advanced Readings 2
INN602	Advanced Readings 3
INN605	Advanced Research 1
INN606	Advanced Research 2
INN607	Advanced Research 3
INN610	Case Studies in Business Process Management



INN632-1	Professional Practice
INN632-2	Professional Practice
INN632-3	Professional Practice
INN632-4	Professional Practice
INN632-5	Professional Practice
INN632-6	Professional Practice
INN650	Advanced Network Management
INN651	Security Technologies
INN652	Advanced Cryptology
INN690	Minor Project 1
INN691	Minor Project 2
INN692	Minor Project 3
INN693	Project
INN694-1	Project 1
INN694-2	Project
INN695	Major Project
INN696-1	Major Project 1
INN700	Introduction To Research
INN696-2	Major Project 2
INN701	Advanced Research Topics
INN281	Advanced Game Design
INS040	Professional Experience (Postgraduate)
INS450	CCNA 1 and 2 Network Fundamentals and Routing
INS451	CCNA 3 and 4 Lan Switching
INS452	CCNP1: Building Scalable Internetworks
INS454	CCNP3: Building Multi Layered Switched Networks
INS456	Voice Over IP 1
INS457	CISCO VOIP

## Doctor of Information Technology (IT81)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 063035A

**Course duration (full-time):** 2-3 years

**Course duration (part-time):** 4-6 years

**Domestic fees (indicative):** Aust citizens or PRs will be awarded an RTS/RTA place or a QUT sponsorship for tuition fees. If you exceed the max time, you will be charged - 2011: \$7,375 per semester (indicative)

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February, July and November

**International Entry:** February, July and November

**Total credit points:** 288

**Course coordinator:** Aspro Terry Walsh

**Discipline coordinator:** Dr Richi Nayak

**Campus:** Gardens Point

### Course Overview

The Doctor of Information Technology is a professional doctorate designed for candidates to contribute towards professional practice and is appropriate for those wishing to pursue a problem within their workplace expertise. The focal problem in the professional doctorate is an application of theory to an existing significant industry problem.

### Entry Requirements

To be eligible for this course, applicants must have industry experience in a field relevant to the professional doctorate and possess one of the following:

- a four-year degree or its equivalent with first-class or second-class honours division A
- a masters degree
- a three-year bachelor degree and industry experience
- an equivalent combination of experience and/or education and training.

Students with exemplary professional practice and who do not meet one of the above criteria may still be eligible to apply and should consult the course coordinator.

Before submitting an application for enrolment, potential candidates should consult the course coordinator for assistance with preparation of the appropriate application form concerning eligibility and special interests.

### Course Structure

The degree consists of 288 credit points of which up to 96 credit points are coursework, and the balance is research. Students are expected to develop a high level of research skill and analysis and make an original contribution to knowledge and professional practice. The Doctor of Information Technology will provide focused research and coursework studies in the IT's research areas.

### Research Area

Areas of research interest and contact details can be obtained from the Faculty website.

### Further Information

For further information about this course, please contact:

Dr Richi Nayak

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

### IT81 - course structure - 2011

#### Notes

This is an indicative course structure only. Students should discuss their program with the Course Coordinator.

#### Year 1, Semester 1

INNXXX PG coursework elective unit

INNXXX PG coursework elective unit

INNXXX PG coursework elective unit

INN690 Minor Project 1

Allows you an opportunity to extend your knowledge in related fields, improve your understanding of project management, develop venture capital, leadership competencies or to lead research groups.

Coursework should normally be completed within the first year, subject to unit availability. Variations to this would be made in consultation with your supervisory team.

#### Year 1, Semester 2

INN701 Advanced Research Topics

A literature review of the related theory.

INN691 Minor Project 2

A literature review of the relevant research methods and approaches that may be of use.

INN692 Minor Project 3

A pilot study of the selected theory and method to a subset of the problem in order to test the efficacy of the methods and theories selected.

INN700 Introduction To Research

Students construct an integrated research proposal.

#### Year 2 to Year 3

#### Computer Science

IFT821 Thesis

#### Information Systems

IFT822 Thesis

### Postgraduate IT Units

#### Unit List:

INN101 Impact of IT

## FACULTY OF SCIENCE AND TECHNOLOGY

INN120	Corporate Systems	INN385	Multimedia Systems
INN122	Organisational Databases	INN386	Advanced Multimedia Systems
INN124	Information Systems Development	INN500	PRINCE2 (R) Project Management
INN180	Computer Games Studies	INN530	Web Content Reliability
INN181	Introduction to Games Production	INN531	Information Services
INN210	Databases	INN532	Information Literacy Education
INN220	Business Analysis	INN533	Information Organisation
INN221	Technology Management	INN540	User Experience
INN250	Foundations of Computer Science	INN550	Computer Forensics
INN251	Networks	INN570	Internationalisation of Software
INN255	Security	INN600	Advanced Readings 1
INN270	Programming	INN601	Advanced Readings 2
INN271	The Web	INN602	Advanced Readings 3
INN272	Interaction Design	INN605	Advanced Research 1
INN280	Fundamentals of Game Design	INN606	Advanced Research 2
INN311	Enterprise Systems	INN607	Advanced Research 3
INN312	Enterprise Systems Applications	INN610	Case Studies in Business Process Management
INN313	Electronic Commerce Site Development		
INN320	Business Process Modelling	INN632-1	Professional Practice
INN321	Business Process Management	INN632-2	Professional Practice
INN322	Information Systems Consulting	INN632-3	Professional Practice
INN330	Information Management	INN632-4	Professional Practice
INN331	Management Issues for Information Professionals	INN632-5	Professional Practice
INN332	Information Retrieval	INN632-6	Professional Practice
INN333	Information Programs	INN650	Advanced Network Management
INN335	Information Resources	INN651	Security Technologies
INN340	Database Design	INN652	Advanced Cryptology
INN341	Software Development With Oracle	INN690	Minor Project 1
INN342	Enterprise Data Mining and Data Analysis	INN691	Minor Project 2
INN343	Advanced Data Mining and Data Warehousing	INN692	Minor Project 3
INN344	Search Engine Technology	INN693	Project
INN345	Mobile Devices	INN694-1	Project 1
INN346	Enterprise 2.0	INN694-2	Project
INN347	Web 2.0 Applications	INN695	Major Project
INN350	Internet Protocols and Services	INN696-1	Major Project 1
INN351	Unix Network Administration	INN700	Introduction To Research
INN352	Network Planning	INN696-2	Major Project 2
INN353	Wireless and Mobile Networks	INN701	Advanced Research Topics
INN355	Cryptology and Protocols	INN281	Advanced Game Design
INN365	Systems Programming	INS040	Professional Experience (Postgraduate)
INN370	Software Development	INS450	CCNA 1 and 2 Network Fundamentals and Routing
INN371	Data Structures and Algorithms	INS451	CCNA 3 and 4 Lan Switching
INN372	Agile Software Development	INS452	CCNP1: Building Scalable Internetworks
INN373	Web Application Development	INS454	CCNP3: Building Multi Layered Switched Networks
INN374	Enterprise Software Architecture	INS456	Voice Over IP 1
INN381	Modelling and Animation Techniques	INS457	CISCO VOIP
INN382	Real Time Rendering Techniques		



## **Graduate Certificate in Information Technology (IT85)**

**Year offered:** 2011

**Admissions:** Yes

**Course duration (part-time):** 1 year

**Domestic fees (indicative):** 2011: Full fee tuition \$7,500 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February and July

**Total credit points:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Ross Hayward

**Discipline coordinator:** Dr Ross Hayward

**Campus:** Gardens Point

### **Course Overview**

Information technology is now firmly ensconced in society with all the other business practices that constitute modern organisations. This Graduate Certificate course has interfaculty contributions from the Faculties of IT, Business, Creative Industries and Law, matching closely to their relevant IT research areas. Recognition of the burgeoning of specialised areas within the Information Industries is reflected in the structure of this course through ten different majors:

- No Major
- Software Architecture
- Network Management
- Enterprise Systems
- Games Production
- Games Design
- Security
- Library and Information Science
- Information Management
- Digital Environments
- Executive Information Practice

The Graduate Certificate in Information Technology IT85 is an entry point that is nested within the IT43 Masters and IT44 Masters Advanced programs. Students who successfully complete the IT85 course may articulate to IT43 Masters or IT44 Masters Advanced Programs.

The IT85 Graduate Certificate in Information Technology does not provide a pathway to follow on with a research degree. However, students who graduate from the IT85 Graduate Certificate in Information Technology may articulate to the IT43 Master of Information Technology or IT44 Master of Information Technology Advanced coursework programs.

### **Special entry requirements**

Executive Information Practice:

This major contains core units from MBA and as such must also meet the MBA entry requirements:

- Demonstrate competency in the English language
- Have a GMAT score of at least 500
- Have at least three years work experience

- At least 10 points from at least two of the three categories
- prior work experience, academic achievement and management aptitude
- For further information, please see the GSB website.

### **Entry Requirements**

To be eligible for this program, students must meet one of the following criteria:

- the Australian equivalent of a Bachelor's degree in any discipline with a grade point average of at least 4.5 (on a 7-point scale)
- OR
- evidence of recognised prior higher learning in the field of Information and Information Technology (e.g. at least five years of relevant full-time work experience). Industry certification alone is not sufficient evidence.

### **Course Structure**

Students are required to complete 48 credit points of units. Please refer to the course structures for information on specific unit requirements for each major. This course may be taken over two semesters part-time. However if the timetable permits a student may complete this course full time in one semester.

### **Course completion rules**

Students should meet the following requirements before they are able to complete the Graduate Certificate program:

- Students are required to complete 48 credit points of units.
- Students must complete the specific unit requirements for a graduate certificate in a major.

Students undertaking units from the MBA program (GSN units) in the Graduate School of Business (GSB) must meet the MBA entry requirements. Please see the GSB website for further information.

### **Further Information**

For further information about this course, please contact:

Dr Ross Hayward

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### **IT85 - Graduate Certificate In Information Technology**

#### **Major Study Areas**

Students choose one of the following majors (see Major option list):

- No Major
- Software Architecture
- Network Management
- Enterprise Systems
- Games Production
- Games Design
- Security



# FACULTY OF SCIENCE AND TECHNOLOGY

Executive Information Practice  
Library and Information Science  
Information Management  
Digital Environments

PLUS Any 1 unit from:  
INN500 PRINCE2 (R) Project Management  
INN281 Advanced Game Design  
INN600 Advanced Readings 1  
INN601 Advanced Readings 2  
KIB201 Concept Development for Game Design and Interactive Media  
KIB202 Enabling Immersion  
INN282 Games Level Design

## IT85 - Major Options

### No Major

INNXXX \*Any IT postgraduate units to the total of 48 credit points

### Software Architecture

Any four units from:  
INN371 Data Structures and Algorithms  
INN372 Agile Software Development  
INN374 Enterprise Software Architecture  
INN570 Internationalisation of Software  
INN500 PRINCE2 (R) Project Management  
INN370 Software Development

### Network Management

Any four units from:  
INN350 Internet Protocols and Services  
INN351 Unix Network Administration  
INN352 Network Planning  
INN650 Advanced Network Management  
INN500 PRINCE2 (R) Project Management

### Enterprise Systems

Any 4 units from:  
INN311 Enterprise Systems  
INN312 Enterprise Systems Applications  
INN374 Enterprise Software Architecture  
INN610 Case Studies in Business Process Management  
INN500 PRINCE2 (R) Project Management

### Games Production

INN180 Computer Games Studies  
INN181 Introduction to Games Production  
PLUS Any 2 units from:  
INN600 Advanced Readings 1  
INN601 Advanced Readings 2  
INN500 PRINCE2 (R) Project Management  
INN220 Business Analysis  
INN321 Business Process Management

### Games Design

INN180 Computer Games Studies  
INN280 Fundamentals of Game Design  
INN272 Interaction Design

### Security

INN255 Security  
INN651 Security Technologies  
PLUS Any 2 units from:  
INN700 Introduction To Research  
INN355 Cryptology and Protocols  
INN652 Advanced Cryptology  
INN550 Computer Forensics  
MGN524 Special Topic in Management 1  
AYN410 Business Law and Ethics  
MGN433 Managing High-Performance Organisations  
MGN423 Contemporary Strategic Analysis  
GSN440 Risk Management 1  
JSN106 Analytical Methods of Intelligence  
MAN778 Applications of Discrete Mathematics  
LWN139 Privacy Law  
LWN125 Electronic Commerce Law  
INN690 Minor Project 1  
INN691 Minor Project 2  
INN692 Minor Project 3  
INN694-1 Project 1  
INN694-2 Project  
INN696-1 Major Project 1  
INN696-2 Major Project 2  
INN600 Advanced Readings 1  
INN601 Advanced Readings 2  
INN602 Advanced Readings 3  
INN605 Advanced Research 1  
INN606 Advanced Research 2  
INN607 Advanced Research 3  
INN693 Project  
INN695 Major Project

### Library and Information Science

INN690 Minor Project 1  
PLUS Any 3 units from:  
INN332 Information Retrieval  
INN531 Information Services  
INN533 Information Organisation

## FACULTY OF SCIENCE AND TECHNOLOGY

INN333	Information Programs	GSN404	Financial Statements Analysis
INN530	Web Content Reliability	GSN405	Strategic Management
INN532	Information Literacy Education	GSN406	Human Resource Management Issues
INN632-1	Professional Practice	GSN407	Business Communication
INN632-2	Professional Practice	GSN408	Fundamentals of Marketing Management
INN632-3	Professional Practice	GSN409	Organisational Behaviour 1
INN632-4	Professional Practice	GSN410	Entrepreneurship
INN632-6	Professional Practice	GSN412	Business Law 1
INN632-5	Professional Practice	GSN413	Financial Management 1
INN330	Information Management	GSN415	Understanding Leadership
INN331	Management Issues for Information Professionals	GSN491	Economics in Business 1
INN271	The Web	<b>Digital Environments</b>	
INN700	Introduction To Research	INN345	Mobile Devices
INN342	Enterprise Data Mining and Data Analysis	INN346	Enterprise 2.0
INN540	User Experience	INN347	Web 2.0 Applications
INN600	Advanced Readings 1	INN500	PRINCE2 (R) Project Management
INN605	Advanced Research 1	INN540	User Experience
CLN601	Cyberlearning	KCP408	Exploring New Media Worlds
CLN603	Designing Spaces for Learning	<b>Postgraduate IT Units</b>	
CLN647	Youth, Popular Culture, and Texts	<b>Unit List:</b>	
CLN650	Information-Learning Nexus	INN101	Impact of IT
EDN611	Professional Applications of Research	INN120	Corporate Systems
KCP408	Exploring New Media Worlds	INN122	Organisational Databases
MDN642	Digital Pedagogies	INN124	Information Systems Development
INN345	Mobile Devices	INN180	Computer Games Studies
INN500	PRINCE2 (R) Project Management	INN181	Introduction to Games Production
INN347	Web 2.0 Applications	INN210	Databases
<b>Information Management</b>		INN220	Business Analysis
INN330	Information Management	INN221	Technology Management
INN335	Information Resources	INN250	Foundations of Computer Science
INN530	Web Content Reliability	INN251	Networks
PLUS	Any 1 unit from:	INN255	Security
INN122	Organisational Databases	INN270	Programming
INN255	Security	INN271	The Web
INN220	Business Analysis	INN272	Interaction Design
INN334	Information Issues and Values	INN280	Fundamentals of Game Design
INN345	Mobile Devices	INN311	Enterprise Systems
INN346	Enterprise 2.0	INN312	Enterprise Systems Applications
INN540	User Experience	INN313	Electronic Commerce Site Development
INN347	Web 2.0 Applications	INN320	Business Process Modelling
<b>Executive Information Practice</b>		INN321	Business Process Management
INN630	Evidence Based Practice	INN322	Information Systems Consulting
INN631	Executive Coaching	INN330	Information Management
PLUS	Any 2 units from:	INN331	Management Issues for Information Professionals
GSN401	Managing in the Global Business Environment	INN332	Information Retrieval
GSN403	Understanding Data		

## FACULTY OF SCIENCE AND TECHNOLOGY

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INN333	Information Programs	INN651	Security Technologies
INN335	Information Resources	INN652	Advanced Cryptology
INN340	Database Design	INN690	Minor Project 1
INN341	Software Development With Oracle	INN691	Minor Project 2
INN342	Enterprise Data Mining and Data Analysis	INN692	Minor Project 3
INN343	Advanced Data Mining and Data Warehousing	INN693	Project
INN344	Search Engine Technology	INN694-1	Project 1
INN345	Mobile Devices	INN694-2	Project
INN346	Enterprise 2.0	INN695	Major Project
INN347	Web 2.0 Applications	INN696-1	Major Project 1
INN350	Internet Protocols and Services	INN700	Introduction To Research
INN351	Unix Network Administration	INN696-2	Major Project 2
INN352	Network Planning	INN701	Advanced Research Topics
INN353	Wireless and Mobile Networks	INN281	Advanced Game Design
INN355	Cryptology and Protocols	INS040	Professional Experience (Postgraduate)
INN365	Systems Programming	INS450	CCNA 1 and 2 Network Fundamentals and Routing
INN370	Software Development	INS451	CCNA 3 and 4 Lan Switching
INN371	Data Structures and Algorithms	INS452	CCNP1: Building Scalable Internetworks
INN372	Agile Software Development	INS454	CCNP3: Building Multi Layered Switched Networks
INN373	Web Application Development	INS456	Voice Over IP 1
INN374	Enterprise Software Architecture	INS457	CISCO VOIP
INN381	Modelling and Animation Techniques		
INN382	Real Time Rendering Techniques		
INN385	Multimedia Systems		
INN386	Advanced Multimedia Systems		
INN500	PRINCE2 (R) Project Management		
INN530	Web Content Reliability		
INN531	Information Services		
INN532	Information Literacy Education		
INN533	Information Organisation		
INN540	User Experience		
INN550	Computer Forensics		
INN570	Internationalisation of Software		
INN600	Advanced Readings 1		
INN601	Advanced Readings 2		
INN602	Advanced Readings 3		
INN605	Advanced Research 1		
INN606	Advanced Research 2		
INN607	Advanced Research 3		
INN610	Case Studies in Business Process Management		
INN632-1	Professional Practice		
INN632-2	Professional Practice		
INN632-3	Professional Practice		
INN632-4	Professional Practice		
INN632-5	Professional Practice		
INN632-6	Professional Practice		
INN650	Advanced Network Management		

## Graduate Certificate in Information Technology (Computer Networks) (IT90)

**Year offered:** 2011

**Admissions:** No

**Course duration (part-time):** 2 semesters or 26 weeks  
(based on completing 2 units/sem)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375  
(indicative) per semester

**Assumed knowledge:** See Entry Requirements

**Preparatory studies:** For information on acquiring  
assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 48

**Course coordinator:** Dr Ernest Foo

**Campus:** Gardens Point

### IT90 Graduate Certificate in IT (Computer Networks)

#### 4 Units to be completed

INN350	Internet Protocols and Services
INN351	Unix Network Administration
INN353	Wireless and Mobile Networks
INN650	Advanced Network Management

## Graduate Certificate in Information Technology (Information Security) (IT92)

**Year offered:** 2011

**Admissions:** No

**Course duration (part-time):** 2 semesters or 26 weeks (based on completing 2 units/sem)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**Assumed knowledge:** See entry requirements

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 48

**Course coordinator:** Dr Ernest Foo

**Campus:** Gardens Point

### IT92 Grad Cert in Information Technology (Information Security)

Four (4) units to be completed

INN690	Minor Project 1
INN255	Security
INN355	Cryptology and Protocols
INN652	Advanced Cryptology

#### Potential Careers:

Data Communications Specialist, Internet Professional, Network Administrator, Network Manager.



## Graduate Certificate in Information Technology (Enterprise Wide Software) (IT93)

**Year offered:** 2011

**Admissions:** No

**Course duration (part-time):** 2 semesters or 26 weeks (based on completing 2 units/sem)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**Domestic Entry:** February and July

**Assumed knowledge:** See Entry Requirements

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 48

**Course coordinator:** Dr Ernest Foo

**Campus:** Gardens Point

### IT93 - Graduate Certificate in IT (Enterprise Wide Software)

#### Four (4) units to be completed

INN311	Enterprise Systems
INN312	Enterprise Systems Applications
INN610	Case Studies in Business Process Management
INN321	Business Process Management

## Graduate Certificate in Information Technology (Electronic Commerce) (IT94)

**Year offered:** 2011

**Admissions:** No

**Course duration (part-time):** 2 semesters or 26 weeks (based on completing 2 units/sem)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**Domestic Entry:** February and July

**Assumed knowledge:** See Entry Requirements

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 48

**Course coordinator:** Dr Ernest Foo

**Campus:** Gardens Point

### IT94 - Graduate Certificate in IT (Electronic Commerce)

Four (4) units to be selected from the following

INN271	The Web
INN340	Database Design
INN313	Electronic Commerce Site Development
INN255	Security

## Graduate Certificate in Information Technology (Project) (IT95)

**Year offered:** 2011

**Admissions:** No

**Course duration (part-time):** 2 semesters or 26 weeks  
(based on completing 2 units/sem)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375  
(indicative) per semester

**Domestic Entry:** February and July

**Assumed knowledge:** See Entry Requirements

**Preparatory studies:** For information on acquiring  
assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 48

**Course coordinator:** Dr Hamish Bentley

**Campus:** Gardens Point

### IT95 - Graduate Certificate in IT (Project)

48 credit points to be completed either full time or part-time

INN695 Major Project  
INN696-1 Major Project 1  
INN696-2 Major Project 2  
IT Elective

#### Potential Careers:

Data Communications Specialist, Internet Professional,  
Network Administrator, Network Manager, Programmer,  
Software Engineer, Systems Analyst, Systems Manager,  
Systems Programmer.

## Graduate Certificate in Information Technology (Information Technology Management) (IT96)

**Year offered:** 2011

**Admissions:** No

**Course duration (part-time):** 2 semesters or 26 weeks  
(based on completing 2 units/sem)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375  
(indicative) per semester

**Assumed knowledge:** See Entry Requirements

**Preparatory studies:** For information on acquiring  
assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 48

**Course coordinator:** Dr Ernest Foo

**Campus:** Gardens Point

### IT96 - Graduate Certificate in IT (Information Technology Management)

Four (4) units to be completed

INN221	Technology Management
INN322	Information Systems Consulting
INN330	Information Management
INN500	PRINCE2 (R) Project Management

## Graduate Certificate in Information Technology (Generic) (IT97)

**Year offered:** 2011

**Admissions:** No

**Course duration (full-time):** 1 semester

**Course duration (part-time):** 2 semesters

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**Domestic Entry:** February and July

**Total credit points:** 48

**Course coordinator:** Dr Ernest Foo

**Campus:** Gardens Point and External

**IT97 is an exit option only**

### IT97 Graduate Certificate in IT

ITN272 Information Technology Project Management

AND Three of the following Basic units:

ITN200 Database Systems

ITN201 Enterprise Architectures

ITN701 Networks and Systems

OPTIONAL One of the following Basic units:  
L

ITN700 Programming Principles

ITB001 Problem Solving and Programming

### Potential Careers:

Data Communications Specialist, Internet Professional, Network Administrator, Network Manager, Programmer, Software Engineer, Systems Analyst, Systems Manager.



## Graduate Certificate in Information Technology (Multimedia) (IT98)

**Year offered:** 2011

**Admissions:** No

**Course duration (part-time):** 2 semesters or 26 weeks  
(based on completing 2 units/sem)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375  
(indicative) per semester

**Domestic Entry:** February and July

**Assumed knowledge:** See Entry Requirements

**Preparatory studies:** For information on acquiring  
assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 48

**Course coordinator:** Dr Ernest Foo

**Campus:** Gardens Point

### IT98 - Graduate Certificate in IT (Multimedia)

Four (4) units to be selected from the following

INN271	The Web
INN272	Interaction Design
INN385	Multimedia Systems
INN386	Advanced Multimedia Systems

## Graduate Certificate in Information Technology (Component Software and Web Services) (IT99)

**Year offered:** 2011

**Admissions:** No

**Course duration (part-time):** 2 semesters or 26 weeks (based on completing 2 units/sem)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**Domestic Entry:** February and July

**Assumed knowledge:** See Entry Requirements

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 48

**Course coordinator:** Ernest Foo

**Campus:** Gardens Point

### Course Overview

Please note: From 2009, this course is discontinued - please refer to IT85.

The Graduate Certificate in Information Technology consists of four designated units (48 credit points) which highlight career specialisations. The GCert IT (Component Software and Web Services) provides a firm basis for a career in web applications technology across a variety of platforms.

### Entry Requirements

An approved Bachelor's degree in Information Technology from a recognised tertiary institution with a grade point average of at least 4.5 (7-point scale); OR provide other evidence of such qualifications (for example Recognised Prior Learning) and significant full-time IT work experience, as will satisfy the Dean of Faculty, that the applicant possesses the capacity to pursue the course of study.

Assumed skills: Programming skills at non-elementary level, including OO concepts, basic computer security, analysis skills (eg software engineering, systems analysis or enterprise modelling), relational database.

International students cannot gain direct entry to Graduate Certificates in IT as they are only currently available as part of a Masters program or an exit point.

### International Student Entry

International students cannot gain direct entry into this program as it is offered on a part-time basis only.

### Course Structure

Students can directly enrol in the Master of IT (IT Graduates)(IT40) and gain credit for one or more graduate certificate awards while completing the program. They may also exit or graduate early from the course upon the successful completion of a graduate certificate (48 credit points) and/or a graduate diploma (96 credit points).

### Further Information

For further information about this course, please contact:

Ernest Foo

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### IT99 - Graduate Certificate in IT (Component Software and Web Services)

#### Four (4) units to be completed

INN372	Agile Software Development
INN370	Software Development
INN373	Web Application Development
INN374	Enterprise Software Architecture

## Bachelor of Applied Science/Bachelor of Education (Secondary) (IX02)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 020322E

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,721 (indicative) per semester

**International Fees (indicative):** 2011: \$11,750 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 409112

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 432

**Standard credit points per full-time semester:** 48 (semesters 1, 6-8), 60 (semesters 2-5)

**Course coordinator:** Dr Perry Hartfield (Science & Technology); Dr Mal Shield (Secondary). For science enquiries email: [scitech.enquiry@qut.edu.au](mailto:scitech.enquiry@qut.edu.au). For education enquires email: [educationenq@qut.edu.au](mailto:educationenq@qut.edu.au) or phone 3138 8947

**Discipline coordinator:** Dr Perry Hartfield (Biochemistry Major); Dr Marion Bateson (Biotechnology Major); Dr Dennis Arnold (Chemistry Major); Dr Ian Williamson (Ecology Major); Dr Robin Thwaites (Environmental Science Major); Dr Gary Huftile (Geoscience Major); Prof Graeme Pettet (Mathematics Major); Dr Christine Knox (Microbiology Major); Dr Stephen Hughes (Physics Major)

**Campus:** Gardens Point and Kelvin Grove

### Course Overview

This double degree enables you to work as a science professional or pursue a career in scientific research. Alternatively, the Bachelor of Education (Secondary) prepares you to teach in two curriculum areas in secondary school. The science majors that are most relevant if you are intending to follow a career in secondary school teaching are chemistry, ecology, geoscience, mathematics or physics.

### Career Outcomes

You will be equipped to work as a science professional or undertake research after graduation if you desire. The Bachelor of Education (Secondary) prepares you to teach in two curriculum areas in secondary schools. Teaching areas will depend on the major and teaching combinations chosen, but combinations should be appropriate for either science studies (general science) combined with biology, chemistry, earth science, physics, or mathematics.

The Bachelor of Education (Secondary) prepares you to teach in two curriculum areas in secondary school. The science majors that are most relevant to students intending to follow a career in secondary school teaching are

chemistry, ecology, geoscience, mathematics or physics.

### Professional Recognition

This course meets the requirements for registration as a teacher in Queensland. It is recognised nationally and internationally, however additional requirements may be needed for some locations.

Graduates will also satisfy the requirements for membership of the relevant professional body for their chosen science major. See Studyfinder for details on the Bachelor of Applied Science majors.

### Other Course Requirements

#### Blue Card

Student teachers must be issued with a blue card prior to units having contact with children. For more information and an application form visit [Blue Card](#).

#### Literacy

Students must meet the Queensland College of Teachers' literacy standards by the end of Year 3. For more information please visit [Studyfinder](#).

### Recommended Study

At least one of the sciences. For the majors in biochemistry, biotechnology and microbiology - Biological Science and Chemistry are recommended; for the major in physics - Maths C is recommended.

### Course Design

See the Bachelor of Applied Science course information for details of major areas of study. To allow you to complete the double degree in a shorter period of time, co-majors are to be taken from the education technology program.

### 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](#).

### Limits on grades of 3

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

### Further Information

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

**Science & Technology Coordinator**

Dr Perry Hartfield  
 Phone: +61 7 3138 2984  
 Email: p.hartfield@qut.edu.au  
 Alternative phone contact: +61 7 3138 2782  
 Alternative email contact: enquiry.scitech@qut.edu.au

**Education Coordinator**

Dr Mal Shield  
 Phone: +61 7 3138 3323  
 Email: m.shield@qut.edu.au

*Faculty of Education Office*

Phone: +61 7 3138 3948  
 Fax: +61 7 3138 3949  
 Email: jo.wakefield@qut.edu.au

**Discipline Coordinators**

**Biochemistry Major (Cell and Molecular Biosciences Discipline)**

Dr Perry Hartfield  
 Phone: +61 7 3138 2984  
 Email: p.hartfield@qut.edu.au  
 Alternative phone contact: +61 7 3138 2782  
 Alternative email contact: enquiry.scitech@qut.edu.au

**Biotechnology Major (Cell and Molecular Biosciences Discipline)**

Dr Marion Bateson  
 Phone: +61 7 3138 1269  
 Email: m.bateson@qut.edu.au

**Chemistry Major (Chemistry Discipline)**

Dr Dennis Arnold  
 Phone: +61 7 3138 2482  
 Email: d.arnold@qut.edu.au  
 Alternative phone contact: +61 7 3138 2782  
 Alternative email contact: enquiry.scitech@qut.edu.au

**Ecology Major (Biogeosciences Discipline)**

Dr Ian Williamson  
 Phone: +61 7 3138 2782  
 Email: enquiry.scitech@qut.edu.au

**Environmental Science Major (Biogeosciences Discipline)**

Dr Robin Thwaites  
 Phone: +61 7 3138 2782  
 Email: enquiry.scitech@qut.edu.au

**Geoscience Major (Biogeosciences Discipline)**

Dr Gary Huftile  
 Phone: +61 7 3138 2782  
 Email: enquiry.scitech@qut.edu.au

**Mathematics Major (Mathematical Sciences Discipline)**

Prof Graeme Pettet  
 Phone: +61 7 3138 2782  
 Email: enquiry.scitech@qut.edu.au

**Microbiology Major (Cell and Molecular Biosciences Discipline)**

Dr Christine Knox  
 Phone: +61 7 3138 2782  
 Email: enquiry.scitech@qut.edu.au

**Physics Major (Physics Discipline)**

Dr Stephen Hughes  
 Phone: +61 7 3138 2782  
 Email: enquiry.scitech@qut.edu.au

**Course structure**

**Year 1, Semester 1**

Science Major Unit  
 Science Major Unit  
 Science Major Unit  
 Science Major Unit

**Year 1, Semester 2**

Science Major Unit  
 Science Major Unit  
 Science Major Unit  
 Science Major Unit  
 Science Major Unit

**Year 2, Semester 1**

EDB002 Teaching and Learning Studies 2:  
 Development and Learning  
 EDB031 Secondary Field Studies 1  
 Curriculum Studies 1X (See List 1)  
 Science Major Unit  
 Science Major Unit

Please note: The teaching prac component of EDB031 will be organised to commence as soon as schools return for Term 1 in January. Students will have to be available for four weeks prior to commencement of semester 1. This is to alleviate the problem of students studying 13 week discipline units in the same semester as a teaching prac. Contact the Student Affairs Office on 3138 3948 for further information.

**Year 2, Semester 2**

MDB454 Science, Technology and Society  
 Science Major Unit  
 Science Major Unit  
 Science Major Unit  
 Science Major Unit

**Year 3, Semester 1**

Curriculum Studies 1Y (See List 1)  
 Science Major Unit  
 Science Major Unit  
 Science Major Unit  
 Science Major Unit

## Year 3, Semester 2

EDB003	Teaching and Learning Studies 3: Practising Education
EDB032	Secondary Field Studies 2 Curriculum Studies 2X (See List 2) Curriculum Studies 2Y (See List 2)

## Year 4, Semester 1

EDB004	Teaching and Learning Studies 4: Inclusive Education
EDB033	Secondary Field Studies 3 Curriculum Studies 3X (See List 3) Curriculum Studies 3Y (See List 3)

## Year 4, 6TP4

EDB005	Teaching and Learning Studies 5: Professional Work of Teachers
EDB007	Culture Studies: Indigenous Education (students must enrol in the 6TP4 mode for both EDB005 and EDB007) EDB005 is delivered through the Stepping Out Conference, which runs over 3 days in 'O' Week of Semester 2 (dates TBA).

## Year 4, Semester 2

Please note that successful completion of all other coursework is required before students can commence the final Field Studies EDB034 and Internship EDB035.

EDB034	Secondary Field Studies 4
EDB035	Internship (Secondary)

## Course structure - Major in Biochemistry

### Year 1, Semester 1

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1
SCB112	Cellular Basis of Life Plus either:
MAB101	Statistical Data Analysis 1 Or
MAB105	Preparatory Mathematics

### Year 1, Semester 2

SCB120	Plant and Animal Physiology
SCB121	Chemistry 2
SCB122	Cell and Molecular Biology
SCB123	Physical Science Applications
SCB222	Exploration of the Universe

### Year 2, Semester 1

LQB381	Biochemistry: Structure and Function
LQB383	Molecular and Cellular Regulation

## Year 2, Semester 2

LQB481	Biochemical Pathways and Metabolism
LQB483	Molecular Biology Techniques
MDB454	Science, Technology and Society
LQB681	Biochemical Research Skills Science Elective (See list)

## Year 3, Semester 1

LQB581	Functional Biochemistry
LQB582	Biomedical Research Technologies
LQB583	Genetic Research Technology Science Elective (See list)

## Course structure - Major in Biotechnology

### Year 1, Semester 1

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1
SCB112	Cellular Basis of Life Plus either:
MAB101	Statistical Data Analysis 1 Or
MAB105	Preparatory Mathematics

### Year 1, Semester 2

SCB120	Plant and Animal Physiology
SCB121	Chemistry 2
SCB122	Cell and Molecular Biology
SCB123	Physical Science Applications
SCB222	Exploration of the Universe

### Year 2, Semester 1

LQB381	Biochemistry: Structure and Function
LQB383	Molecular and Cellular Regulation

### Year 2, Semester 2

LQB483	Molecular Biology Techniques
LQB484	Introduction to Genomics and Bioinformatics Science Elective (See list) Science Elective (See list)
MDB454	Science, Technology and Society

### Year 3, Semester 1

LQB582	Biomedical Research Technologies
LQB583	Genetic Research Technology
LQB584	Medical Cell Biology
LQB585	Plant Genetic Manipulation

## Course structure - Major in Chemistry

### Year 1, Semester 1

SCB110	Science Concepts and Global Systems
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# FACULTY OF SCIENCE AND TECHNOLOGY

SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Plus either:
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

## Year 1, Semester 2

MAB120	Algebra and Calculus
SCB121	Chemistry 2
SCB123	Physical Science Applications
SCB131	Experimental Chemistry
SCB222	Exploration of the Universe

## Year 2, Semester 1

PQB312	Analytical Chemistry For Scientists and Technologists
PQB331	Structure and Bonding

## Year 2, Semester 2

PQB401	Reaction Kinetics, Thermodynamics and Mechanisms
PQB442	Chemical Spectroscopy
PQB631	Advanced Inorganic Chemistry
	Science Elective (See list)
MDB454	Science, Technology and Society

## Year 3, Semester 1

PQB502	Advanced Physical Chemistry
PQB513	Instrumental Analysis
PQB531	Organic Mechanisms and Synthesis
	Science Elective (See list)

## Course structure - Major in Ecology

### Year 1, Semester 1

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Plus either
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

### Year 1, Semester 2

NQB201	Planet Earth
NQB202	History of Life on Earth
NQB422	Genetics and Evolution
SCB120	Plant and Animal Physiology
SCB222	Exploration of the Universe

### Year 2, Semester 1

NQB321	Ecology
NQB322	Invertebrate Biology

## Year 2, Semester 2

MDB454	Science, Technology and Society
NQB421	Experimental Design
NQB622	Conservation Biology
	Plus either
SCB122	Cell and Molecular Biology
	Or
SCB123	Physical Science Applications
	Science Elective (See list)

## Year 3, Semester 1

NQB502	Field Methods in Natural Resource Sciences
NQB521	Population Genetics and Molecular Ecology
NQB523	Population Management
	Science Elective (See list)

## Course structure - Major in Environmental Science

### Year 1, Semester 1

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Plus either:
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

### Year 1, Semester 2

NQB201	Planet Earth
NQB202	History of Life on Earth
SCB120	Plant and Animal Physiology
SCB123	Physical Science Applications
SCB222	Exploration of the Universe

### Year 2, Semester 1

NQB302	Earth Surface Systems
NQB321	Ecology

### Year 2, Semester 2

NQB403	Soils and the Environment
NQB421	Experimental Design
NQB601	Sustainable Environmental Management
	Science Elective (See list)
MDB454	Science, Technology and Society

### Year 3, Semester 1

NQB501	Environmental Modelling
NQB502	Field Methods in Natural Resource Sciences

# FACULTY OF SCIENCE AND TECHNOLOGY

NQB503 Spatial Analysis of Environmental Systems  
Science Elective (See list)

## Course structure - Major in Geoscience

### Year 1, Semester 1

SCB110 Science Concepts and Global Systems  
SCB111 Chemistry 1  
SCB112 Cellular Basis of Life  
Plus either:  
MAB101 Statistical Data Analysis 1  
Or  
MAB105 Preparatory Mathematics

### Year 1, Semester 2

NQB201 Planet Earth  
NQB202 History of Life on Earth  
SCB120 Plant and Animal Physiology  
SCB123 Physical Science Applications  
SCB222 Exploration of the Universe

### Year 2, Semester 1

NQB311 Mineralogy  
NQB314 Sedimentary Geology

### Year 2, Semester 2

NQB411 Petrology of Igneous and Metamorphic Rocks  
NQB412 Structural Geology and Field Methods  
NQB615 Geochemistry  
Science Elective (See list)  
MDB454 Science, Technology and Society

### Year 3, Semester 1

NQB502 Field Methods in Natural Resource Sciences  
NQB503 Spatial Analysis of Environmental Systems  
NQB513 Geophysics  
Science Elective (See list)

## Course structure - Major in Mathematics (WITH Maths C from Senior)

### WITH PHYSICS AS A SECOND TEACHING AREA

#### Year 1, Semester 1

MAB101 Statistical Data Analysis 1  
MAB121 Calculus and Differential Equations  
SCB110 Science Concepts and Global Systems  
SCB111 Chemistry 1

#### Year 1, Semester 2

MAB122 Algebra and Analytic Geometry  
MAB210 Statistical Modelling 1

MAB220 Computational Mathematics 1  
PQB250 Mechanics and Electromagnetism  
SCB112 Cellular Basis of Life

#### Year 2, Semester 1

MAB311 Advanced Calculus  
MAB315 Operations Research 2

#### Year 2, Semester 2

MAB625 Operations Research 3B  
MDB454 Science, Technology and Society  
PQB251 Waves and Optics  
Plus either  
MAB414 Applied Statistics 2  
Or  
MAB422 Mathematical Modelling  
Plus ONE unit from the following:  
MAB313 Mathematics of Finance  
MAB413 Differential Equations  
MAB414 Applied Statistics 2  
MAB422 Mathematical Modelling  
MAB461 Discrete Mathematics  
MAB480 Introduction to Scientific Computation

#### Year 3, Semester 1

Select THREE units from the following:  
MAB521 Applied Mathematics 3  
MAB525 Operations Research 3A  
MAB533 Statistical Techniques  
MAB672 Advanced Mathematical Modelling  
Plus  
PQB350 Thermodynamics of Solids and Gases

### WITH GENERAL SCIENCE AS A SECOND TEACHING AREA

#### Year 1, Semester 1

MAB101 Statistical Data Analysis 1  
MAB121 Calculus and Differential Equations  
SCB110 Science Concepts and Global Systems  
SCB111 Chemistry 1

#### Year 1, Semester 2

MAB122 Algebra and Analytic Geometry  
MAB210 Statistical Modelling 1  
MAB220 Computational Mathematics 1  
SCB112 Cellular Basis of Life  
SCB222 Exploration of the Universe

#### Year 2, Semester 1

MAB311 Advanced Calculus

MAB315 Operations Research 2

Plus either

**Year 2, Semester 2**

MAB625 Operations Research 3B

MDB454 Science, Technology and Society

Science Elective (See list)

Plus either

MAB414 Applied Statistics 2

Or

MAB422 Mathematical Modelling

Plus ONE unit from the following:

MAB313 Mathematics of Finance

MAB413 Differential Equations

MAB414 Applied Statistics 2

MAB422 Mathematical Modelling

MAB461 Discrete Mathematics

MAB480 Introduction to Scientific Computation

MAB414 Applied Statistics 2

Or

MAB422 Mathematical Modelling

MDB454 Science, Technology and Society

PQB251 Waves and Optics

Plus select ONE unit from the following:

MAB313 Mathematics of Finance

MAB413 Differential Equations

MAB414 Applied Statistics 2

MAB422 Mathematical Modelling

MAB461 Discrete Mathematics

MAB480 Introduction to Scientific Computation

**Year 3, Semester 1**

Select THREE units from the following:

MAB521 Applied Mathematics 3

MAB525 Operations Research 3A

MAB533 Statistical Techniques

MAB672 Advanced Mathematical Modelling

Plus

PQB350 Thermodynamics of Solids and Gases

**WITH GENERAL SCIENCE AS A SECOND TEACHING AREA**

**Year 1, Semester 1**

MAB101 Statistical Data Analysis 1

MAB120 Algebra and Calculus

SCB110 Science Concepts and Global Systems

SCB111 Chemistry 1

**Year 1, Semester 2**

MAB121 Calculus and Differential Equations

MAB122 Algebra and Analytic Geometry

MAB210 Statistical Modelling 1

MAB220 Computational Mathematics 1

SCB222 Exploration of the Universe

**Year 2, Semester 1**

MAB311 Advanced Calculus

MAB315 Operations Research 2

**Year 2, Semester 2**

MAB625 Operations Research 3B

Plus either

MAB414 Applied Statistics 2

Or

MAB422 Mathematical Modelling

MDB454 Science, Technology and Society

**Course structure - Major in Mathematics (WITHOUT Maths C)**

**WITH PHYSICS AS A SECOND TEACHING AREA**

**Year 1, Semester 1**

MAB101 Statistical Data Analysis 1

MAB120 Algebra and Calculus

SCB110 Science Concepts and Global Systems

SCB111 Chemistry 1

**Year 1, Semester 2**

MAB121 Calculus and Differential Equations

MAB122 Algebra and Analytic Geometry

MAB210 Statistical Modelling 1

MAB220 Computational Mathematics 1

PQB250 Mechanics and Electromagnetism

**Year 2, Semester 1**

MAB311 Advanced Calculus

MAB315 Operations Research 2

**Year 2, Semester 2**

MAB625 Operations Research 3B

Science Elective (See list)

Plus select ONE unit from the following:

MAB313	Mathematics of Finance
MAB413	Differential Equations
MAB414	Applied Statistics 2
MAB422	Mathematical Modelling
MAB461	Discrete Mathematics
MAB480	Introduction to Scientific Computation

#### Year 3, Semester 1

Select THREE units from the following:

MAB521	Applied Mathematics 3
MAB525	Operations Research 3A
MAB533	Statistical Techniques
MAB672	Advanced Mathematical Modelling

Plus

Science Elective (See list)

#### Course structure - Major in Microbiology

##### Year 1, Semester 1

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1
SCB112	Cellular Basis of Life

Plus either:

MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

##### Year 1, Semester 2

SCB120	Plant and Animal Physiology
SCB121	Chemistry 2
SCB122	Cell and Molecular Biology
SCB123	Physical Science Applications
SCB222	Exploration of the Universe

##### Year 2, Semester 1

LQB381	Biochemistry: Structure and Function
LQB386	Microbial Structure and Function

##### Year 2, Semester 2

LQB483	Molecular Biology Techniques
LQB486	Clinical Microbiology 1
LQB687	Applied Microbiology 2: Food and Quality Assurance
MDB454	Science, Technology and Society
	Science Elective (See list)

##### Year 3, Semester 1

LQB586	Clinical Microbiology 2
LQB587	Applied Microbiology 1: Water, Air and Soil

Either

LQB582	Biomedical Research Technologies
	Or
LQB583	Genetic Research Technology
	Science Elective (See list)

#### Course structure - Major in Physics (WITH Maths C from Senior)

##### WITH GENERAL SCIENCE AS A SECOND TEACHING AREA

##### Year 1, Semester 1

MAB121	Calculus and Differential Equations
SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1
SCB112	Cellular Basis of Life

##### Year 1, Semester 2

MAB122	Algebra and Analytic Geometry
MAB220	Computational Mathematics 1
PQB250	Mechanics and Electromagnetism
PQB251	Waves and Optics
SCB222	Exploration of the Universe

##### Year 2, Semester 1

MAB311	Advanced Calculus
PQB350	Thermodynamics of Solids and Gases

##### Year 2, Semester 2

MDB454	Science, Technology and Society
PQB450	Energy, Fields and Radiation
PQB451	Electronics and Instrumentation
PQB661	Lasers and Photonics
	Science Elective (see list)

##### Year 3, Semester 1

PQB550	Quantum and Condensed Matter Physics
PQB551	Physical Analytical Techniques
PQB651	Experimental Physics
	Science Elective (see list)

##### WITH MATHEMATICS AS A SECOND TEACHING AREA

##### Year 1, Semester 1

MAB121	Calculus and Differential Equations
SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1
SCB112	Cellular Basis of Life

##### Year 1, Semester 2

MAB122	Algebra and Analytic Geometry
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# FACULTY OF SCIENCE AND TECHNOLOGY

MAB220	Computational Mathematics 1
PQB250	Mechanics and Electromagnetism
PQB251	Waves and Optics
	Plus either
MAB101	Statistical Data Analysis 1
	Or
MAB210	Statistical Modelling 1

## Year 2, Semester 1

MAB311	Advanced Calculus
PQB350	Thermodynamics of Solids and Gases

## Year 2, Semester 2

MDB454	Science, Technology and Society
PQB450	Energy, Fields and Radiation
PQB451	Electronics and Instrumentation
PQB661	Lasers and Photonics
	Plus select ONE unit from the following:
MAB210	Statistical Modelling 1
MAB313	Mathematics of Finance
MAB413	Differential Equations
MAB422	Mathematical Modelling
MAB480	Introduction to Scientific Computation

## Year 3, Semester 1

MAB312	Linear Algebra
PQB550	Quantum and Condensed Matter Physics
PQB551	Physical Analytical Techniques
PQB651	Experimental Physics

## Course structure - Major in Physics (WITHOUT Maths C from Senior)

### WITH GENERAL SCIENCE AS A SECOND TEACHING AREA

#### Year 1, Semester 1

MAB120	Algebra and Calculus
SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1
SCB112	Cellular Basis of Life

#### Year 1, Semester 2

MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry
PQB250	Mechanics and Electromagnetism
PQB251	Waves and Optics
SCB222	Exploration of the Universe

#### Year 2, Semester 1

MAB311	Advanced Calculus
PQB350	Thermodynamics of Solids and Gases

## Year 2, Semester 2

MDB454	Science, Technology and Society
PQB450	Energy, Fields and Radiation
PQB451	Electronics and Instrumentation
PQB661	Lasers and Photonics
	Science Elective (See list)

## Year 3, Semester 1

PQB550	Quantum and Condensed Matter Physics
PQB551	Physical Analytical Techniques
PQB651	Experimental Physics
	Science Elective (See list)

### WITH MATHEMATICS AS A SECOND TEACHING AREA

#### Year 1, Semester 1

MAB120	Algebra and Calculus
SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1
SCB112	Cellular Basis of Life

#### Year 1, Semester 2

MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry
MAB220	Computational Mathematics 1
PQB250	Mechanics and Electromagnetism
PQB251	Waves and Optics

#### Year 2, Semester 1

MAB311	Advanced Calculus
PQB350	Thermodynamics of Solids and Gases

#### Year 2, Semester 2

MDB454	Science, Technology and Society
PQB450	Energy, Fields and Radiation
PQB451	Electronics and Instrumentation
PQB661	Lasers and Photonics
	Plus select ONE unit from the following:
MAB210	Statistical Modelling 1
MAB313	Mathematics of Finance
MAB413	Differential Equations
MAB422	Mathematical Modelling
MAB480	Introduction to Scientific Computation

#### Year 3, Semester 1

PQB550	Quantum and Condensed Matter Physics
PQB551	Physical Analytical Techniques
PQB651	Experimental Physics
	Either



MAB101 Statistical Data Analysis 1

Or

MAB210 Statistical Modelling 1

Prerequisites: Curriculum Studies 1X & 1Y

MDB010 Biology Curriculum Studies 2

(MDB010 is suitable for students studying Biochemistry, Biotechnology, Ecology, Environmental Science, Microbiology)

## Second Teaching Area - General Science

SCB120 Plant and Animal Physiology

Or

SCB222 Exploration of the Universe

Plus

MDB454 Science, Technology and Society

In addition, choose 2 units from the Science Electives List

MDB013 Chemistry Curriculum Studies 2

(MDB013 is suitable for students majoring in Biochemistry or Biotechnology – contains more emphasis on chemistry rather than biology)

MDB019 Earth Science Curriculum Studies 2

(MDB019 is suitable for students majoring in Environmental Science or Geoscience – contains more emphasis on geology rather than biology)

## Science Electives

Select TWO units that you have not already done from the following:

### Semester 1 Units:

NQB302 Earth Surface Systems

NQB321 Ecology

NQB322 Invertebrate Biology

NQB323 Plant Biology

SCB121 Chemistry 2

### Semester 2 Units:

NQB201 Planet Earth

NQB202 History of Life on Earth

NQB403 Soils and the Environment

NQB423 Vertebrate Biology

PQB250 Mechanics and Electromagnetism

SCB120 Plant and Animal Physiology

SCB121 Chemistry 2

SCB122 Cell and Molecular Biology

SCB123 Physical Science Applications

## List 3: Curriculum Studies 3X & 3Y

Prerequisites: Curriculum Studies 2X & 2Y.

Students undertaking a double Science major will undertake MDB033 as Curriculum Studies 3X, and an education elective as Curriculum Studies 3Y.

Students studying Maths or Physics as a major or minor will take MDB023 as Curriculum Studies 3X, and can take MDB033 as their Curriculum Studies 3Y unit.

MDB023 Mathematics Curriculum Studies 3

MDB033 Science Education Curriculum Studies 3

See Education Electives list below for Curriculum Studies 3Y alternatives.

## List 1: Curriculum Studies 1X & 1Y

Prerequisite for curriculum studies: normally a minimum of 24 credit points of relevant discipline.

Students undertaking a double Science major will undertake MDB031 as Curriculum Studies 1X, and an education elective as Curriculum Studies 1Y.

Students studying Maths or Physics as a major or minor will take MDB031 as Curriculum Studies 1X, and can take MDB021 as their Curriculum Studies 1Y unit.

MDB021 Mathematics Curriculum Studies 1

MDB031 Science Education Curriculum Studies 1

See Education Electives list below for Curriculum Studies 1Y alternatives.

## List 2: Curriculum Studies 2X & 2Y

## Education Electives

### LIST 4: EDUCATION ELECTIVES

CLB049 The Global Teacher

MDB021 Mathematics Curriculum Studies 1

SPB012 Classroom and Behaviour Management

SPB018 Teaching Strategies

SPB020 Classroom Assessment Practices

SPB006 Educational Counselling

(If enrolled in SPB006, must choose BLOCK option as teaching prac commences in week 10)

## Potential Careers:

Actuary, Analytical Chemist, Astrophysicist, Biochemist, Biologist, Biotechnologist, Chemist, Chemist Industrial, Coastal Scientist, Conservation Biologist, Database Manager, Ecologist, Environmental Scientist, Forensic Scientist, Geologist, Geophysicist, Geoscientist, Health Physicist, Hydrogeologist, Immunologist, Industrial Chemist,

Laboratory Technician (Chemistry), Marine Scientist,  
Mathematician, Medical Biotechnologist, Medical Physicist,  
Microbiologist, Natural Resource Scientist, Physicist, Plant  
Biotechnologist, Population Ecologist, Programmer,  
Quantitative Analyst, Statistician, Virologist.

## Bachelor of Applied Science/Bachelor of Education (Primary) (IX14)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 037540M

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,299 (indicative) per semester

**International Fees (indicative):** 2011: \$11,500 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 409142

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr Perry Hartfield (Science and Technology). For Education contact Student Affairs 07 3138 3947, or [educationeq@qut.edu.au](mailto:educationeq@qut.edu.au).

**Discipline coordinator:** Education Course Coordinator Dr Mary Ryan. Science Discipline Coordinators: Dr Perry Hartfield (Biochemistry Major); Dr Marion Bateson (Biotechnology Major); Dr John McMurtrie (Chemistry Major); Dr Ian Williamson (Ecology Major); Dr Robin Thwaites (Environmental Science Major); Dr Gary Huftile (Geoscience Major); Dr Scott McCue (Mathematics Major); Dr Christine Knox (Microbiology Major); Dr Greg Michael (Physics Major)

**Campus:** Gardens Point and Kelvin Grove

### Course Overview

This double degree enables you to work as a science professional or pursue a career in scientific research. Alternatively, the Bachelor of Education (Primary) will prepare you to teach at all levels of primary school. You may also complete a discipline and content studies major in one of the key learning areas of the Queensland school curriculum.

### Career Outcomes

The Bachelor of Applied Science allows multidisciplinary programs of study that help you position yourself within the broad range of science disciplines and also qualifies you as a competent professional in your chosen field. You will be equipped to work as a science professional or undertake research after graduation if you desire.

The Bachelor of Education (Primary) prepares you to teach at all levels of primary school. Students may also complete a discipline/content studies major in one of the key learning areas of the Queensland school curriculum.

### Professional Recognition

This course meets the requirements for registration as a teacher in Queensland. It is recognised nationally and

internationally, however additional requirements may be needed for some locations.

Graduates will also satisfy the requirements for membership of the relevant professional body for their chosen science major. See Studyfinder for details on the Bachelor of Applied Science majors.

### Other Course Requirements

#### Blue Card

Student teachers must be issued with a blue card prior to having contact with children. For more information and an application form visit Blue Card.

#### Literacy

Students must meet the Queensland College of Teachers' literacy standards by the end of Year 3. For more information please visit Studyfinder.

### Course Design

Graduates from this double degree will have a science degree with the same core support and choice of major study areas as the graduates from the Bachelor of Applied Science (SC01) program. Education studies will comprise the co-major component. Field Studies units will be taken in Queensland schools.

### 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.

### Further Information

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

#### Science Coordinator

Dr Perry Hartfield

Phone: +61 7 3138 2984

Email: [p.hartfield@qut.edu.au](mailto:p.hartfield@qut.edu.au)

#### Faculty of Education

Student Affairs

Phone: +61 7 3138 3947

Email: [educationeq@qut.edu.au](mailto:educationeq@qut.edu.au)

### Discipline Coordinators

#### Biochemistry

Dr Perry Hartfield

Phone: +61 7 3138 2984

Email: [p.hartfield@qut.edu.au](mailto:p.hartfield@qut.edu.au)

#### Biotechnology

Dr Marion Bateson

Phone: +61 7 3138 1269

Email: [m.bateson@qut.edu.au](mailto:m.bateson@qut.edu.au)

#### Chemistry

Dr John McMurtrie  
Phone: +61 7 3138 1220  
Email: j.mcmurtrie@qut.edu.au

### **Ecology**

Dr Ian Williamson  
Phone: +61 7 3138 2779  
Email: i.williamson@qut.edu.au

### **Environmental Science**

Dr Robin Thwaites  
Phone: +61 7 3138 2400  
Email: r.thwaites@qut.edu.au

### **Geoscience**

Dr Gary Huftile  
Phone: +61 7 3138 4470  
Email: g.huftile@qut.edu.au

### **Mathematics**

Dr Scott McCue  
Phone: +61 7 3138 4295  
Email: scott.mccue@qut.edu.au

### **Microbiology**

Dr Christine Knox  
Phone: +61 7 3138 2301  
Email: c.knox@qut.edu.au

### **Physics**

Dr Greg Michael  
Phone: +61 7 3138 1584  
Email: g.michael@qut.edu.au top

### **Course structure**

PLEASE NOTE THAT SOME COURSEWORK UNITS CANNOT BE STUDIED IN THE SAME SEMESTER AS A FIELD STUDIES UNIT. If students do not follow the standard course progression (eg due to a fail grade, or non enrolment in units), time will be added onto the course duration, and you should contact Student Affairs for progression advice, nm.kyle@qut.edu.au.

All other course requirements must have been successfully completed before commencing EDB024 and EDB025 in your final semester of study. This is a University and Queensland College of Teachers requirement.

Students must have a valid Bluecard to be eligible for Field Studies units.

#### **Year 1, Semester 1**

EDB002 Teaching and Learning Studies 2: Development and Learning  
Science Major Unit  
Science Major Unit  
Science Major Unit

#### **Year 1, Semester 2**

EDB021 Primary Field Studies 1: Development and

Learning in the Field  
Designated Unit: EDB021  
Science Major Unit  
Science Major Unit  
Science Major Unit

#### **Year 2, Semester 1**

MDB120 Mathematics Curriculum and Pedagogies  
Science Major Unit  
Science Major Unit  
Science Major Unit

#### **Year 2, Semester 2**

CLB008 Teaching Primary SOSE  
Science Major Unit  
Science Major Unit  
Science Major Unit

#### **Year 3, Semester 1**

Science Major Unit  
Science Major Unit  
Science Major Unit  
Science Major Unit

#### **Year 3, Semester 2**

CLB006 Teaching Reading and Writing  
EDB003 Teaching and Learning Studies 3: Practising Education  
EDB022 Primary Field Studies 2: Practising Education in the Field  
Designated Unit: EDB022  
HMB300 Teaching Primary HPE

#### **Year 4, Semester 1**

EDB004 Teaching and Learning Studies 4: Inclusive Education  
EDB023 Primary Field Studies 3: Inclusive Educational Practices  
KKB202 Teaching Primary Dance and Drama  
Designated Unit: EDB023  
MDB006 Teaching Primary Science

#### **Year 4, 6TP4 (unit is run between 4 July and 20 August - see individual class timetable)**

EDB005 Teaching and Learning Studies 5: Professional Work of Teachers  
MDB004 Teaching Primary ICT

#### **Year 4, Semester 2**

EDB024 Primary Field Studies 4: Professional Work of Teachers - Induction into the Field  
Designated Unit: EDB024  
EDB025 Internship (Primary)

Please note that successful completion of all other coursework is required before students can commence the final Internship unit EDB025.

Designated Unit: EDB025

**Course structure - Major in Biochemistry**

**Year 1, Semester 1**

SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Plus either
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

**Year 1, Semester 2**

SCB120	Plant and Animal Physiology
SCB121	Chemistry 2
SCB122	Cell and Molecular Biology

**Year 2, Semester 1**

LQB381	Biochemistry: Structure and Function
LQB383	Molecular and Cellular Regulation
LQB386	Microbial Structure and Function

**Year 2, Semester 2**

LQB481	Biochemical Pathways and Metabolism
LQB483	Molecular Biology Techniques
LQB681	Biochemical Research Skills

**Year 3, Semester 1**

LQB581	Functional Biochemistry
LQB582	Biomedical Research Technologies
LQB583	Genetic Research Technology
	Science Elective

**Course structure - Major in Biotechnology**

**Year 1, Semester 1**

SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Plus either
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

**Year 1, Semester 2**

SCB120	Plant and Animal Physiology
SCB121	Chemistry 2
SCB122	Cell and Molecular Biology

**Year 2, Semester 1**

LQB381	Biochemistry: Structure and Function
LQB383	Molecular and Cellular Regulation
LQB386	Microbial Structure and Function

**Year 2, Semester 2**

LQB483	Molecular Biology Techniques
LQB484	Introduction to Genomics and Bioinformatics
	Plus select ONE unit from the following:
LQB481	Biochemical Pathways and Metabolism
LQB486	Clinical Microbiology 1
LQB489	Plant Physiology and Cell Biology

**Year 3, Semester 1**

LQB582	Biomedical Research Technologies
LQB583	Genetic Research Technology
LQB584	Medical Cell Biology
LQB585	Plant Genetic Manipulation

**Course structure - Major in Chemistry**

**Year 1, Semester 1**

SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Plus either
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

**Year 1, Semester 2**

MAB120	Algebra and Calculus
SCB121	Chemistry 2
SCB131	Experimental Chemistry

**Year 2, Semester 1**

PQB312	Analytical Chemistry For Scientists and Technologists
PQB313	Analytical Chemistry For Industry
PQB331	Structure and Bonding

**Year 2, Semester 2**

PQB401	Reaction Kinetics, Thermodynamics and Mechanisms
PQB442	Chemical Spectroscopy
PQB631	Advanced Inorganic Chemistry

**Year 3, Semester 1**

PQB502	Advanced Physical Chemistry
PQB513	Instrumental Analysis
	Plus either
PQB525	Unit Operations
	Or
PQB531	Organic Mechanisms and Synthesis



Science Elective

**Course structure - Major in Ecology**

**Year 1, Semester 1**

SCB110	Science Concepts and Global Systems
SCB112	Cellular Basis of Life
	Plus either
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

**Year 1, Semester 2**

NQB202	History of Life on Earth
NQB422	Genetics and Evolution
SCB120	Plant and Animal Physiology

**Year 2, Semester 1**

NQB321	Ecology
SCB111	Chemistry 1
	Plus either
NQB322	Invertebrate Biology
	Or
NQB323	Plant Biology

**Year 2, Semester 2**

NQB421	Experimental Design
NQB622	Conservation Biology
	Science Elective

**Year 3, Semester 1**

NQB502	Field Methods in Natural Resource Sciences
NQB521	Population Genetics and Molecular Ecology
NQB523	Population Management
	Science Elective

**Course structure - Major in Environmental Science**

**Year 1, Semester 1**

SCB110	Science Concepts and Global Systems
SCB112	Cellular Basis of Life
	Plus either
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

**Year 1, Semester 2**

NQB201	Planet Earth
NQB202	History of Life on Earth
SCB120	Plant and Animal Physiology

**Year 2, Semester 1**

NQB302	Earth Surface Systems
NQB321	Ecology
SCB111	Chemistry 1

**Year 2, Semester 2**

NQB403	Soils and the Environment
NQB421	Experimental Design
NQB601	Sustainable Environmental Management

**Year 3, Semester 1**

NQB501	Environmental Modelling
NQB502	Field Methods in Natural Resource Sciences
NQB503	Spatial Analysis of Environmental Systems
	Science Elective

**Course structure - Major in Geoscience**

**Year 1, Semester 1**

SCB110	Science Concepts and Global Systems
SCB112	Cellular Basis of Life
	Plus either
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

**Year 1, Semester 2**

NQB201	Planet Earth
NQB202	History of Life on Earth
SCB222	Exploration of the Universe

**Year 2, Semester 1**

NQB311	Mineralogy
NQB314	Sedimentary Geology
SCB111	Chemistry 1

**Year 2, Semester 2**

NQB411	Petrology of Igneous and Metamorphic Rocks
NQB412	Structural Geology and Field Methods
NQB615	Geochemistry

**Year 3, Semester 1**

NQB502	Field Methods in Natural Resource Sciences
NQB512	Economic Geology
NQB513	Geophysics
	Science Elective

**Course structure - Major in Mathematics (WITH Maths C)**

**Year 1, Semester 1**

MAB101	Statistical Data Analysis 1
MAB121	Calculus and Differential Equations

SCB110 Science Concepts and Global Systems

**Year 1, Semester 2**

MAB122 Algebra and Analytic Geometry

MAB210 Statistical Modelling 1

SCB111 Chemistry 1

**Year 2, Semester 1**

MAB220 Computational Mathematics 1

MAB311 Advanced Calculus

MAB315 Operations Research 2

**Year 2, Semester 2**

MAB625 Operations Research 3B

Plus either

MAB414 Applied Statistics 2

Or

MAB422 Mathematical Modelling

Plus select ONE unit from the following:

MAB313 Mathematics of Finance

MAB413 Differential Equations

MAB414 Applied Statistics 2

MAB422 Mathematical Modelling

MAB461 Discrete Mathematics

MAB480 Introduction to Scientific Computation

**Year 3, Semester 1**

SCB112 Cellular Basis of Life

Plus select THREE units from the following:

MAB521 Applied Mathematics 3

MAB525 Operations Research 3A

MAB533 Statistical Techniques

MAB672 Advanced Mathematical Modelling

**Course structure - Major in Mathematics (WITHOUT Maths C)**

**Year 1, Semester 1**

MAB101 Statistical Data Analysis 1

MAB120 Algebra and Calculus

SCB110 Science Concepts and Global Systems

**Year 1, Semester 2**

MAB121 Calculus and Differential Equations

MAB122 Algebra and Analytic Geometry

MAB210 Statistical Modelling 1

**Year 2, Semester 1**

MAB220 Computational Mathematics 1

MAB311 Advanced Calculus

MAB315 Operations Research 2

**Year 2, Semester 2**

MAB625 Operations Research 3B

Plus either

MAB414 Applied Statistics 2

Or

MAB422 Mathematical Modelling

Plus select ONE unit from the following:

MAB313 Mathematics of Finance

MAB413 Differential Equations

MAB414 Applied Statistics 2

MAB422 Mathematical Modelling

MAB461 Discrete Mathematics

MAB480 Introduction to Scientific Computation

**Year 3, Semester 1**

Select ONE unit from the following:

SCB111 Chemistry 1

SCB112 Cellular Basis of Life

Plus select THREE units from the following:

MAB521 Applied Mathematics 3

MAB525 Operations Research 3A

MAB533 Statistical Techniques

MAB672 Advanced Mathematical Modelling

**Course structure - Major in Microbiology**

**Year 1, Semester 1**

SCB111 Chemistry 1

SCB112 Cellular Basis of Life

Plus either

MAB101 Statistical Data Analysis 1

Or

MAB105 Preparatory Mathematics

**Year 1, Semester 2**

SCB120 Plant and Animal Physiology

SCB121 Chemistry 2

SCB122 Cell and Molecular Biology

**Year 2, Semester 1**

LQB381 Biochemistry: Structure and Function

LQB383 Molecular and Cellular Regulation

LQB386 Microbial Structure and Function

**Year 2, Semester 2**

LQB483 Molecular Biology Techniques

LQB486 Clinical Microbiology 1

LQB687 Applied Microbiology 2: Food and Quality Assurance

**Year 3, Semester 1**

## FACULTY OF SCIENCE AND TECHNOLOGY

LQB586	Clinical Microbiology 2	MAB312	Linear Algebra
LQB587	Applied Microbiology 1: Water, Air and Soil Plus either	NQB311	Mineralogy
LQB582	Biomedical Research Technologies Or	NQB322	Invertebrate Biology
LQB583	Genetic Research Technology Science Elective	NQB323	Plant Biology
		PCB593	Digital Image Processing
		PQB360	Global Energy Balance and Climate Change
		SCB121	Chemistry 2

### Course structure - Major in Physics

#### Year 1, Semester 1

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1 Plus either
MAB120	Algebra and Calculus Or
MAB121	Calculus and Differential Equations  NOTE: Students without Senior Mathematics C must take MAB120 in Semester 1 and MAB121 in Semester 2

#### Year 1, Semester 2

MAB122	Algebra and Analytic Geometry
PQB250	Mechanics and Electromagnetism Plus either
MAB121	Calculus and Differential Equations Or
PQB251	Waves and Optics

#### Year 2, Semester 1

MAB311	Advanced Calculus
PQB350	Thermodynamics of Solids and Gases
SCB112	Cellular Basis of Life

#### Year 2, Semester 2

PQB450	Energy, Fields and Radiation
PQB451	Electronics and Instrumentation
PQB661	Lasers and Photonics

#### Year 3, Semester 1

PQB550	Quantum and Condensed Matter Physics
PQB551	Physical Analytical Techniques
PQB651	Experimental Physics Science elective for Physics major (See list)

### Course structure - Science Elective for Physics Major

Students must select units that they have not already taken, and for which they have the appropriate prerequisites:

MAB101	Statistical Data Analysis 1
MAB220	Computational Mathematics 1

### Potential Careers:

Actuary, Analytical Chemist, Astrophysicist, Biochemist, Biologist, Biotechnologist, Chemist, Chemist Industrial, Coastal Scientist, Conservation Biologist, Database Manager, Ecologist, Environmental Scientist, Forensic Scientist, Geologist, Geophysicist, Geoscientist, Health Physicist, Hydrogeologist, Immunologist, Industrial Chemist, Laboratory Technician (Chemistry), Marine Scientist, Mathematician, Medical Biotechnologist, Medical Physicist, Microbiologist, Molecular Biologist, Natural Resource Scientist, Physicist, Plant Biotechnologist, Population Ecologist, Programmer, Quantitative Analyst, Statistician, Virologist.

## **Bachelor of Engineering (Software Engineering) (IX25)**

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 053707D

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,878 (indicative)  
per semester

**International Fees (indicative):** 2011: \$12,000 (indicative)  
per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419502

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring  
assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-Iyer

**Discipline coordinator:** Dr Jasmine Banks

**Campus:** Gardens Point

### **DISCONTINUATION**

As of Semester 1 2009, IX25 has been discontinued.

Software Engineering is now available in the EN40 Bachelor  
of Engineering course.

### **Special Note**

Any remaining students should seek advice from the Course  
Coordinator regarding their remaining course program.

### **Further Information**

For further information about this course, please contact:

Phone +61 7 3138 2678

Fax +61 7 3138 1515

Email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

## **Bachelor of Applied Science/Bachelor of Information Technology (IX26)**

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 020327M

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,878 per semester (indicative)

**International Fees (indicative):** 2011: \$11,750 (indicative) per semester

**QTAC code:** 419302

**Past rank cut-off:** 74

**Past OP cut-off:** 13

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Course coordinator:** Dr Perry Hartfield (Science), Mr Richard Thomas (Information Systems)

**Discipline coordinator:** Dr Perry Hartfield (Biochemistry Major); Dr Marion Bateson (Biotechnology Major); Dr Robert Johnson (Chemistry Major); Dr Ian Williamson (Ecology Major); Dr Robin Thwaites (Environmental Science Major); Dr Emad Kiriakous (Forensic Science Major); Dr Gary Huftile (Geoscience Major); Dr Christine Knox (Microbiology Major); Dr Greg Michael (Physics Major)

**Campus:** Gardens Point

### **Information Systems Major**

#### **Compulsory Units**

INB311	Enterprise Systems
INB340	Database Design
INB220	Business Analysis

#### **IS Elective Units**

INB312	Enterprise Systems Applications
INB342	Enterprise Data Mining and Data Analysis
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB320	Business Process Modelling
INB124	Information Systems Development
INB221	Technology Management

### **Network Systems Major**

#### **Compulsory Units**

INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB255	Security

#### **Electives**

INB312	Enterprise Systems Applications
INB365	Systems Programming

INB353	Wireless and Mobile Networks
INB355	Cryptology and Protocols

### **Software Architecture Major**

#### **Compulsory Units**

INB340	Database Design
INB371	Data Structures and Algorithms
INB372	Agile Software Development

#### **Electives**

	Choose 3 Electives
INB341	Software Development With Oracle
INB311	Enterprise Systems
INB312	Enterprise Systems Applications
INB272	Interaction Design
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB320	Business Process Modelling
INB365	Systems Programming
INB370	Software Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques
MAB281	Mathematics for Computer Graphics
	MAB281 is only to be used as a prereq for INB381

## **IX26 - Bachelor of Applied Science/Bachelor of Information Technology Course Structure 2009**

### **Course Structure 2009**

From semester one, 2009 this course will not be available for commencing students. IX26 will only be available for continuing students. New students - please refer to IX55. Please contact enquiry.scitech@qut.edu.au for any enquiries.

#### **Year 1, Semester 1**

INB103	Industry Insights
INB250	Systems Architecture
	Science Core Unit
	Science Core Unit

#### **Year 1, Semester 2**

INB210	Databases
INB251	Networks
	Science Major Unit
	Science Major Unit

#### **Year 2, Semester 1**



# FACULTY OF SCIENCE AND TECHNOLOGY

INB104 Building IT Systems  
Choose one unit from: Intermediate Level Elective list. This choice will replace ITB008 from 2009 course summary.  
Science Major Unit  
Science Major Unit

## Year 2, Semester 2

INB270 Programming  
INB271 The Web  
Science Major Unit  
Science Major Unit

## Year 3, Semester 1

IT Major Unit  
IT Major Unit  
Science Major Unit  
Science Major Unit

## Year 3, Semester 2

INB301 The Business of IT  
IT Major Unit  
Science Major Unit  
Science Major Unit

## Year 4, Semester 1

INB302 Capstone Project  
IT Major Unit  
Science Major Unit  
Science Major Unit

## Year 4, Semester 2

IT Major Unit  
IT Major Unit  
Science Major Unit  
Science Major Unit

## IX26 - Bachelor of Applied Science/Bachelor of Information Technology Course Structure 2008

## Year 1, Semester 1

ITB002 IT Professional Studies  
ITB005 Systems Architecture  
Science Core Unit  
Science Core Unit

## Year 1, Semester 2

ITB004 Database Systems  
ITB006 Networks  
Science Core Unit  
Science Core Unit

## Year 2, Semester 1

ITB001 Problem Solving and Programming  
ITB008 Modelling Analysis and Design  
Science Core Unit  
Science Major Unit

## Year 2, Semester 2

ITB003 Object Oriented Programming  
ITB007 Web Development  
Science Core Unit  
Science Major Unit

## Year 3, Semester 1

IT Major Unit  
IT Major Unit  
Science Major Unit  
Science Major Unit

## Year 3, Semester 2

ITB009 Core Project Management  
IT Major Unit  
Science Major Unit  
Science Major Unit

## Year 4, Semester 1

ITB010 Core Project Implementation  
IT Major Unit  
Science Major Unit  
Science Major Unit

## Year 4, Semester 2

IT Major Unit  
IT Major Unit  
Science Major Unit  
Science Major Unit

## Potential Careers:

Analytical Chemist, Astrophysicist, Biochemist, Biologist, Biotechnologist, Chemist, Chemist Industrial, Coastal Scientist, Conservation Biologist, Data Communications Specialist, Ecologist, Environmental Scientist, Forensic Scientist, Geologist, Geophysicist, Geoscientist, Health Physicist, Hydrogeologist, Immunologist, Industrial Chemist, Laboratory Technician (Chemistry), Marine Scientist, Medical Biotechnologist, Medical Physicist, Microbiologist, Molecular Biologist, Natural Resource Scientist, Network Administrator, Network Manager, Physicist, Plant Biotechnologist, Population Ecologist, Software Engineer, Systems Analyst, Virologist.

## Bachelor of Creative Industries / Bachelor of Information Technology (IX27)

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 059227E

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,299 per semester (indicative)

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Domestic Entry:** February

**QTAC code:** 409872

**Past rank cut-off:** 86

**Past OP cut-off:** 8

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA), and for games technology and security majors, Maths B (4, SA), or for all other majors, 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:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Head, Undergraduate Studies (Creative Industries); Mr Richard Thomas (Science and Technology)

**Campus:** Gardens Point and Kelvin Grove

### Overview

This four-year program gives you the opportunity to allow your creative side to shine through as it complements your technical information technology skills. The integrated program consists of 16 creative industries units and 16 information technology units so that you will study both creative industries and information technology units in each semester. You will choose one information technology major from business systems engineering, databases, electronic business, games technology, information and knowledge management, information systems, information technology management, intelligent systems, security, network systems, software architecture, or web services and applications.

The Bachelor of Creative Industries emphasises the use of technology through digital media and film production in the interdisciplinary major. You can choose a creative industries Second major that will build complementary skill sets, such as digital media or film, television and screen. Alternatively, you may choose a creative industries area of interest to diversify your IT studies.

Creative Industries Second majors include art and design history; creative and professional writing; dance; digital media, fashion; film, television and screen; interactive and visual design; journalism; media and communication; literary and cultural studies.

### Course Update

From Semester 1, 2009, a revised version of this double degree program has been introduced. This course has been

recoded IX56 Bachelor of Creative Industries/Bachelor of Information Technology. The current IX27 Bachelor of Creative Industries/Bachelor of Information Technology will be offered for continuing students only.

### Career Outcomes

The creative industries Second majors in this double degree have been specifically chosen for their relevance to careers in information technology. You will undertake the Bachelor of Creative Industries interdisciplinary major as well as one creative industries second major. Your information technology degree component comprises eight core units and eight units in your information technology major.

You will learn creative and technical skills within a contextual framework, so you will be well placed to build your career in digital product and new media strategy.

### Course Structure

This course is made up of 384 credit points. Each component (i.e. Creative Industries and Information Technology) comprises 192 credit points.

The Creative Industries component is made up of 24 credit points of Faculty Foundation units, 168 credit points from Creative Industries interdisciplinary units.

The Information Technology component is made up of 120 credit points of Faculty core units and 72 credit points of units from an IT major.

### Professional Recognition

Graduates of the Bachelor of Information Technology component meet the knowledge requirements for admission to the Australian Computer Society (ACS).

### OP Guarantee

The OP Guarantee does not apply to this course.

### 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

### Further Information

For further information regarding this course, please contact the following:

#### **Science and Technology Coordinator**

Mr Richard Thomas

Phone: +61 073138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

#### **Creative Industries Coordinator**

Phone +61 7 3138 8114

Fax +61 7 3138 8116

Email: [creativeindustries@qut.edu.au](mailto:creativeindustries@qut.edu.au)

**Overview for students who commenced in 2008**

**Year 1, Semester 1**

INB103	Industry Insights
INB250	Foundations of Computer Science
KKB101	Creative Industries: People and Practices
SELECT	A Creative Industries Discipline Unit

**Year 1, Semester 2**

INB210	Databases
INB251	Networks
KKB102	Creative Industries: Making Connections
SELECT	A Creative Industries Discipline Unit

**Year 2, Semester 1**

INB104	Building IT Systems
	Choose one unit from: Intermediate Level Elective list. This choice will replace ITB008 from 2009 course summary.
SELECT	A Creative Industries Discipline Unit
SELECT	A Creative Industries Discipline Unit

**Year 2, Semester 2**

INB270	Programming
INB271	The Web
SELECT	A Creative Industries Discipline Unit
SELECT	A Creative Industries Discipline Unit

**Year 3, Semester 1**

	IT Major Unit
	IT Major Unit
SELECT	A Creative Industries Discipline Unit
SELECT	A Creative Industries Discipline Unit

**Year 3, Semester 2**

INB301	The Business of IT
	IT Major Unit
SELECT	A Creative Industries Discipline Unit
SELECT	A Creative Industries Discipline Unit

**Year 4, Semester 1**

INB302	IT Capstone Project
	IT Major Unit
SELECT	A Creative Industries Discipline Unit
SELECT	A Creative Industries Unit Option

**Year 4, Semester 2**

	IT Major Unit
	IT Major Unit
SELECT	A Creative Industries Discipline Unit
SELECT	A Creative Industries Unit Option

**Communication Design course structure for students**

**who commenced in 2008**

**Year 1, Semester 1**

KKB101	Creative Industries: People and Practices
KIB101	Visual Communication

**Year 1, Semester 2**

KKB102	Creative Industries: Making Connections
KIB102	Visual Interactions

**Year 2, Semester 1**

SELECT	A Creative Industries Unit Option
KIB103	Introduction to Web Design and Development

**Year 2, Semester 2**

SELECT	A Creative Industries Unit Option
KIB104	Digital Media

**Year 3, Semester 1**

KIB214	Design for Interactive Media
SELECT	Either KIB230 or KKB216:
KIB230	Interface and Information Design
KKB216	Graphical Development Environments for Media Interaction

**Year 3, Semester 2**

KIB216	Advanced Web Design
SELECT	Either KIB205 or KVB204:
KIB205	Programming for Visual Designers and Artists
KVB204	Graphic Design

**Year 4, Semester 1**

KIB315	Contemporary Issues in Digital Media
SELECT	Either KIB309 or KIB335:
KIB309	Embodied Interactions
KIB335	Typography and Illustration

**Year 4, Semester 2**

KIB322	Design Project
SELECT	Either KIB314 or KKB338:
KIB314	Tangible Media
KIB338	Print Media

**Interdisciplinary course structure for students who commenced in 2008**

**Year 1, Semester 1**

KKB101	Creative Industries: People and Practices
SELECT	Either KPB101 or KVB104:
KPB101	Introduction to Film, TV and New Media Production
KVB104	Photomedia and Artistic Practice

**Year 1, Semester 2**

## FACULTY OF SCIENCE AND TECHNOLOGY

KKB102	Creative Industries: Making Connections
KCB103	Strategic Speech Communication

### Year 2, Semester 1

KKB221	Approaching Interdisciplinarity
SELECT	Creative Industries co-major: First Unit

### Year 2, Semester 2

KKB222	Interdisciplinarity in Practice
SELECT	Creative Industries co-major: Second Unit

### Year 3, Semester 1

SELECT	Creative Industries co-major: Third Unit
SELECT	Creative Industries co-major: Fourth Unit

### Year 3, Semester 2

SELECT	Creative Industries co-major: Fifth Unit
SELECT	Creative Industries co-major: Sixth Unit

### Year 4, Semester 1

SELECT	Transitions to New Professional Environment Unit
SELECT	Creative Industries co-major: Seventh Unit

### Year 4, Semester 2

SELECT	Transitions to New Professional Environment Unit
SELECT	Creative Industries co-major: Eighth Unit

### Music course structure for students who commenced in 2008

#### Year 1, Semester 1

KKB101	Creative Industries: People and Practices
SELECT	Either KMB003 or KMB005-1:
KMB003	Sex Drugs Rock 'N' Roll
KMB005-1	Group Music

#### Year 1, Semester 2

KKB102	Creative Industries: Making Connections
KMB105	Music and Sound Technology
SELECT	KMB005-2 if KMB005-1 was completed in semester 1:
KMB005-2	Group Music

#### Year 2, Semester 1

KMB130	Core Musicianship 1
SELECT	Either KMB110 or KMB120:
KMB110	Music Production 1
KMB120	Music Performance 1

#### Year 2, Semester 2

KMB131	Core Musicianship 2
SELECT	Either KMB111 or KMB121:

KMB111	Music Production 2
KMB121	Music Performance 2

### Year 3, Semester 1

SELECT	A Music Unit Option (List A)
KMB214-1	Music and Sound: Principal Study A

### Year 3, Semester 2

SELECT	A Music Unit Option (List B)
KMB214-2	Music and Sound: Principal Study A

### Year 4, Semester 1

SELECT	A Creative Industries Unit Option
SELECT	A Music Unit Option (List A)

### Year 4, Semester 2

SELECT	A Creative Industries Unit Option
SELECT	A Music Unit Option (List B)

### LIST A: Music Unit Options

KMB003	Sex Drugs Rock 'N' Roll
KMB004	World Music
KMB108	Sound Recording and Acoustics
KMB113	Multi-Instrumental Music A
KMB119	Music and Sound Production 1
KMB122	Music and Sound Concepts 1
KMB200	Music Scenes and Subcultures
KMB209	Conducting
KMB213	Multi-Instrumental Music B

Note: KMB206 and KMB207 are permitted to count as List A Music Unit Options if completed in 2010 or earlier.

### LIST B: Music Unit Options

KMB002	Music and Spirituality
KMB107	Sound, Image, Text
KMB108	Sound Recording and Acoustics
KMB129	Music and Sound Production 2
KMB132	Music and Sound Concepts 2
KMB212	Arranging
KMB252	Multi-Platform Sound Design
KMB301	The Music Industry

Note: KMB106, KMB205 and KMB208 are permitted to count as List B Music Unit Options if completed in 2010 or earlier.

### Sound Design course structure for students who commenced in 2008

#### Year 1, Semester 1

KKB101	Creative Industries: People and Practices
KMB105	Music and Sound Technology

## Year 1, Semester 2

KKB102 Creative Industries: Making Connections

KMB106 Music and Sound for Multimedia

\*Please note: KMB106 will be discontinued at the end of 2010 and replaced by KMB252.

## Year 2, Semester 1

KMB104 Music and Sound Skills

KMB110 Music Production 1

## Year 2, Semester 2

KMB107 Sound, Image, Text

KMB111 Music Production 2

## Year 3, Semester 1

SELECT A Sound Design Unit Option (List A)

KMB214-1 Music and Sound: Principal Study A

## Year 3, Semester 2

KMB205 Sound Media Musicianship

KMB214-2 Music and Sound: Principal Study A

## Year 4, Semester 1

SELECT A Creative Industries Unit Option

SELECT A Creative Industries Unit Option

## Year 4, Semester 2

KMB301 The Music Industry

SELECT A Sound Design Unit Option (List B)

## LIST A: Sound Design Unit Options

KIB103 Introduction to Web Design and Development

KIB108 Animation History and Practices

KMB003 Sex Drugs Rock 'N' Roll

KMB004 World Music

## LIST B: Sound Design Unit Options

KCB207 Exploring New Media Worlds

KIB104 Digital Media

KIB105 Animation and Motion Graphics

KPB101 Introduction to Film, TV and New Media Production

## Overview for students who commenced in 2007

### Year 1, Semester 1

INB103 Industry Insights

INB250 Foundations of Computer Science

SELECT A Creative Industries Core Unit

SELECT A Creative Industries Discipline Unit

### Year 1, Semester 2

INB210 Databases

INB251 Networks

SELECT A Creative Industries Core Unit

SELECT A Creative Industries Discipline Unit

### Year 2, Semester 1

INB104 Building IT Systems

Choose one unit from: Intermediate Level Elective list. This choice will replace ITB008 from 2009 course summary.

SELECT A Creative Industries Discipline Unit

SELECT A Creative Industries Discipline Unit

### Year 2, Semester 2

INB270 Programming

INB271 The Web

SELECT A Creative Industries Discipline Unit

SELECT A Creative Industries Discipline Unit

### Year 3, Semester 1

IT Major Unit

IT Major Unit

SELECT A Creative Industries Discipline Unit

SELECT A Creative Industries Discipline Unit

### Year 3, Semester 2

INB301 The Business of IT

IT Major Unit

SELECT A Creative Industries Discipline Unit

SELECT A Creative Industries Discipline Unit

### Year 4, Semester 1

INB302 IT Capstone Project

IT Major Unit

SELECT A Creative Industries Discipline Unit

SELECT A Creative Industries Unit Option

### Year 4, Semester 2

IT Major Unit

IT Major Unit

SELECT A Creative Industries Discipline Unit

SELECT A Creative Industries Unit Option

## Communication Design course structure for students who commenced in 2007

### Year 1, Semester 1

SELECT A Creative Industries Core Unit

KIB101 Visual Communication

### Year 1, Semester 2

SELECT A Creative Industries Core Unit

KIB102 Visual Interactions



**Year 2, Semester 1**

SELECT A Creative Industries Unit Option  
KIB103 Introduction to Web Design and Development

**Year 2, Semester 2**

SELECT A Creative Industries Unit Option  
KIB104 Digital Media

**Year 3, Semester 1**

KIB214 Design for Interactive Media  
SELECT Either KIB230 or KKB216:  
KIB230 Interface and Information Design  
KKB216 Graphical Development Environments for Media Interaction

**Year 3, Semester 2**

KIB216 Advanced Web Design  
SELECT Either KIB205 or KVB204:  
KIB205 Programming for Visual Designers and Artists  
KVB204 Graphic Design

**Year 4, Semester 1**

KIB315 Contemporary Issues in Digital Media  
SELECT Either KIB309 or KIB335:  
KIB309 Embodied Interactions  
KIB335 Typography and Illustration

**Year 4, Semester 2**

KIB322 Design Project  
SELECT Either KIB314 or KKB338:  
KIB314 Tangible Media  
KIB338 Print Media

**Interdisciplinary course structure for students who commenced in 2007**

**Year 1, Semester 1**

SELECT A Creative Industries Core Unit  
SELECT Sub-Major 1: First Unit

**Year 1, Semester 2**

SELECT A Creative Industries Core Unit  
SELECT Sub-Major 1: Second Unit

**Year 2, Semester 1**

SELECT Sub-Major 1: Third Unit  
SELECT Sub-Major 2: First Unit

**Year 2, Semester 2**

SELECT Sub-Major 1: Fourth Unit  
SELECT Sub-Major 2: Second Unit

**Year 3, Semester 1**

SELECT Sub-Major 1: Fifth Unit  
SELECT Sub-Major 2: Third Unit

**Year 3, Semester 2**

SELECT Sub-Major 1: Sixth Unit  
SELECT Sub-Major 2: Fourth Unit

**Year 4, Semester 1**

SELECT A Creative Industries Unit Option  
SELECT Sub-Major 2: Fifth Unit

**Year 4, Semester 2**

SELECT A Creative Industries Unit Option  
SELECT Sub-Major 2: Sixth Unit

Please note: At least eight of your sub-major units must be K-coded units

**Music course structure for students who commenced in 2007**

**Year 1, Semester 1**

SELECT A Creative Industries Core Unit  
SELECT Either KMB003 or KMB005-1:  
KMB003 Sex Drugs Rock 'N' Roll  
KMB005-1 Group Music

**Year 1, Semester 2**

SELECT A Creative Industries Core Unit  
KMB105 Music and Sound Technology  
SELECT KMB005-2 if KMB005-1 was completed in semester 1:  
KMB005-2 Group Music

**Year 2, Semester 1**

KMB130 Core Musicianship 1  
SELECT Either KMB110 or KMB120:  
KMB110 Music Production 1  
KMB120 Music Performance 1

**Year 2, Semester 2**

KMB131 Core Musicianship 2  
SELECT Either KMB111 or KMB121:  
KMB111 Music Production 2  
KMB121 Music Performance 2

**Year 3, Semester 1**

SELECT A Music Unit Option (List A)  
KMB214-1 Music and Sound: Principal Study A

**Year 3, Semester 2**

SELECT A Music Unit Option (List B)  
KMB214-2 Music and Sound: Principal Study A

## Year 4, Semester 1

- SELECT A Creative Industries Unit Option  
 SELECT A Music Unit Option (List A)

## Year 4, Semester 2

- SELECT A Creative Industries Unit Option  
 SELECT A Music Unit Option (List B)

## LIST A: Music Unit Options

- KMB003 Sex Drugs Rock 'N' Roll  
 KMB004 World Music  
 KMB108 Sound Recording and Acoustics  
 KMB113 Multi-Instrumental Music A  
 KMB119 Music and Sound Production 1  
 KMB122 Music and Sound Concepts 1  
 KMB200 Music Scenes and Subcultures  
 KMB209 Conducting  
 KMB213 Multi-Instrumental Music B  
 Note: KMB206 and KMB207 are permitted to count as List A Music Unit Options if completed in 2010 or earlier.

## LIST B: Music Unit Options

- KMB002 Music and Spirituality  
 KMB107 Sound, Image, Text  
 KMB108 Sound Recording and Acoustics  
 KMB129 Music and Sound Production 2  
 KMB132 Music and Sound Concepts 2  
 KMB212 Arranging  
 KMB252 Multi-Platform Sound Design  
 KMB301 The Music Industry  
 Note: KMB106, KMB205 and KMB208 are permitted to count as List B Music Unit Options if completed in 2010 or earlier.

## Sound Design course structure for students who commenced in 2007

### Year 1, Semester 1

- SELECT A Creative Industries Core Unit  
 KMB105 Music and Sound Technology

### Year 1, Semester 2

- SELECT A Creative Industries Core Unit  
 KMB106 Music and Sound for Multimedia  
 \*Please note: KMB106 will be discontinued at the end of 2010 and replaced by KMB252.

### Year 2, Semester 1

- KMB104 Music and Sound Skills  
 KMB110 Music Production 1

### Year 2, Semester 2

- KMB107 Sound, Image, Text  
 KMB111 Music Production 2

### Year 3, Semester 1

- SELECT A Sound Design Unit Option (List A)  
 KMB214-1 Music and Sound: Principal Study A

### Year 3, Semester 2

- KMB205 Sound Media Musicianship  
 KMB214-2 Music and Sound: Principal Study A

### Year 4, Semester 1

- SELECT A Creative Industries Unit Option  
 SELECT A Creative Industries Unit Option

### Year 4, Semester 2

- KMB301 The Music Industry  
 SELECT A Sound Design Unit Option (List B)

## LIST A: Sound Design Unit Options

- KIB103 Introduction to Web Design and Development  
 KIB108 Animation History and Practices  
 KMB003 Sex Drugs Rock 'N' Roll  
 KMB004 World Music

## LIST B: Sound Design Unit Options

- KCB207 Exploring New Media Worlds  
 KIB104 Digital Media  
 KIB105 Animation and Motion Graphics  
 KPB101 Introduction to Film, TV and New Media Production

## Creative Industries Second Major Options

### INSTRUCTIONS FOR SECOND MAJORS/CO-MAJORS

Please refer to the following study sequences to plan your program. You must complete 96 credit points (normally eight 12 credit point subjects) from the specified units to achieve a second major, following semester of offer and unit requisites (where applicable) to determine order of enrolment. Any unit(s) that appear in these second majors and are also mandatory elsewhere in your course can not contribute towards the completion of these second majors. Any unit(s) that appear in multiple second majors can only contribute towards the completion of one of these second majors.

### Advertising

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this second major.

- AMB200 Consumer Behaviour  
 AMB201 Marketing and Audience Research  
 AMB220 Advertising Theory and Practice  
 AMB318 Advertising Copywriting

AMB319	Media Planning
AMB320	Advertising Management
AMB330	Advertising Planning Portfolio
BSB126	Marketing
Note: AMB221 and AMB339 are permitted to count towards the completion of this unit set if completed in 2009 or earlier.	

## Animation

Description: This second major provides you with important skills in the skills, principles, concepts and history of animation. Beginning with drawing for animation and an exploration of the history of the animation industry and its practices, you will then apply this knowledge to current and emerging fields within the animation industry including motion graphics, 3D modelling and animation, real-time 3D and character animation. Through the creation of an interactive virtual environment you will be given the opportunity to refine your skills and expand your knowledge of the 3D animation industry.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this second major.

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

## Architectural Studies

A full list of the units offered in this study package is available from:  
<http://www.bee.qut.edu.au/study/current/2majors/min/majors/>

## Art and Design History

Description: This second major equips you with the educational base necessary for a career in the arts professions, such as curatorial work, art criticism and arts administration. It offers a coherent and sequential set of units that provide a platform for a research-based study of the visual arts, design and architecture. In conjunction with further study, this second major will assist in preparing you for work as a professional in these disciplines.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this second major.

DAB325	Architecture in the 20th Century
DAB420	Architecture, Culture and Space
DEB202	Introducing Design History

KVB102	Modernism
KVB103	Australian Art
KVB108	Contemporary Asian Visual Culture
KVB211	Post 1945 Art
KVB212	Australian Art, Architecture and Design
KVB304	Contemporary Art Issues
KVB306	Video Art and Culture

## Creative and Professional Writing

Description: The aim of this second major is to prepare students to graduate with adequate skills and knowledge in the area of creative and professional writing; to provide a thorough grounding in a variety of genres that include fiction, creative non-fiction, media writing and corporate writing and editing, thereby equipping graduates with the versatility required of professional writers; to enhance the critical, analytical and peer-reviewing skills of students; to provide and understanding of creative writing in its social and generic contexts.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this second major.

Instructions: Of the eight units you need to complete, you must select at least three units coded 200 or above.

KWB101	Introduction to Creative Writing
KWB102	Media Writing
KWB103	Persuasive Writing
KWB104	Creative Writing: the Short Story
KWB106	Corporate Writing and Editing
KWB107	Creative Non-Fiction
KWB206	Youth and Children's Writing
KWB207	Great Books: Creative Writing Classics
KWB211	Stylistics and Poetics
KWB303	Writing and Publishing Industry
KWB313	Novel and Memoir

## Dance Studies

Description: This second major aims to provide a broad grounding in practical and theoretical aspects of dance. You will gain skills in contemporary dance, ballet, commercially driven genres, choreography and critical thinking and writing together with an understanding of the social and historical context of ballet, contemporary dance, and popular and world dance.

Assumed Knowledge: Previously acquired knowledge or skill IS required for you to undertake this second major. It is essential that you be physically able, fit and have basic knowledge in a dance technique, either ballet, jazz or contemporary dance.

Instructions: Of the eight units you need to complete, you must select at least two units coded 200 or above.

KDB103	Dance Technique Studies 1
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# FACULTY OF SCIENCE AND TECHNOLOGY

KDB104	Dance Technique Studies 2	KDB225	Music Theatre Skills
KDB105	Architecture of the Body	KTB101	20th Century Performance
KDB106	Dance Analysis	KTB103	Performing Skills 1: Character and Scene
KDB107	Choreographic Studies 1	KTB104	Performance Innovation
KDB108	World Dance	KTB106	Performing Skills 2: Style and Form
KDB109	Funk, Tap and all that Jazz	KTB204	Understanding Performance
KDB110	Deconstructing Dance in History	KTB207	Staging Australia
KDB204	Australian Dance	KTB210	Creative Industries Management
KDB205	Dance in Education	KTB211	Creative Industries Events and Festivals
KDB225	Music Theatre Skills	KTB305	The Entrepreneurial Artist
	*Please note that the Dance Studies major in the Bachelor of Creative Industries is NOT a pathway to secondary dance teaching	KTB306	Directing for Performance Events and Festivals

## Digital Media

Description: Online and interactive technologies now dominate creative and professional life. This second major provides you with the opportunity to develop websites, multimedia projects, wikis and blogs, as well as allowing you to understand the guiding principals behind these new modes of communication and creative practice.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this second major.

KCB101	Introduction to Media and Communication: Texts
SELECT:	Either KCB102 or KJB101:
KCB102	Media Myth Busting 1
KJB101	Digital Journalism
SELECT	Either KCB104 or KPB110:
KCB104	Media and Communications: Industries
KPB110	The Movie, TV & New Media Business
KCB206	New Media: Internet, Self and Beyond
KCB207	Exploring New Media Worlds
KCB203	Consumption Matters: Consumer Cultures and Identity
KIB101	Visual Communication
KIB103	Introduction to Web Design and Development
KVB306	Video Art and Culture

## Drama

Description: The second major offers a balance of performance theory and practice. It is designed as a learning sequence, beginning with introductory concepts and practices, through intermediate and on to advanced learning. Underpinning the second major is a twin focus on contemporary performance-making and events management. Both of these areas are balanced by studies in theatre history and theory. Core topics include acting; directing; twentieth-century performance theory and practice; and events management.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this second major.

## Entertainment Industries

Description: On completion of this second major, you will be able to demonstrate the knowledge and skills required to pursue a career in the Entertainment Industry. These include an understanding of the characteristics of mainstream commercial culture that appeal to large audiences; an understanding both of business and creative processes; an ability to balance the two of these; and an awareness of historical and current Entertainment content and business.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this second major.

SELECT	Either BSB126 or KPB101 (BSB126 is mandatory unless you are already undertaking it as part of another study package):
BSB126	Marketing
KPB101	Introduction to Film, TV and New Media Production
AMB207	Entertainment Marketing
KXB101	Introduction to Entertainment
KXB102	Global Entertainment
KXB201	Entertainment Practice: Balancing Creativity and Business
KXB301	Entertainment? Industries Map
LWS008	Entertainment Law
LWS009	Introduction to Law

Note: LWS009 will be first offered in semester 2 2011. KXB301 and LWS008 will first be offered in semester 1 2012. AMB200, KCB301 or KWB102 will be permitted to count towards this study package if completed in 2010 or earlier.

## Entrepreneurship

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this second major.

AMB251	Innovation and Brand Management
BSB115	Management
BSB126	Marketing
MGB200	Leading Organisations
MGB223	Entrepreneurship and Innovation



## FACULTY OF SCIENCE AND TECHNOLOGY

MGB324	Managing Business Growth		knowledge required as a prerequisite to undertaking this second major.
SELECT	Two units from the Advanced AMB Unit Options list OR two units from the Advanced MGB Unit Options list	KPB101	Introduction to Film, TV and New Media Production
	Advanced AMB Unit Options (AMB240 is mandatory):	KPB104	Film and Television Production Resource Management
AMB201	Marketing and Audience Research	KPB105	Narrative Production
AMB240	Marketing Planning and Management	KPB109	Film and TV History
	Advanced MGB Unit Options (MGB310 is mandatory):	KPB110	The Movie, TV & New Media Business
MGB210	Managing Operations	KPB112	TV and Film Genres
MGB225	Intercultural Communication and Negotiation Skills	KPB113	TV and Film Text Analysis
MGB310	Sustainability in A Changing Environment	KPB202	Film and Television Business Skills: Entrepreneurship and Investment
	Note: AMB230, EFB210, MGB207, MGB216, MGB222 and MGB335 are permitted to count towards the completion of this unit set if completed in 2009 or earlier. AMB336 and AMB340 are permitted to count towards the Advanced AMB Unit Options if completed in semester 1 2011 or earlier.	KPB205	Documentary Theory and Practice
		KPB206	International Cinema
		KPB212	Australian Film and TV
		KPB303	Critical Thinking About Television
		KPB313	How to be a Producer <sup>^</sup>

\* Please Note: KPB203 is permitted to count towards this unit set.

<sup>^</sup>KPB313 will be offered from 2012.

### Fashion

Description: This second major has been designed to offer a mix of theoretical and practical units. The theory units will develop your knowledge and understanding of the history, industry and consumption of fashion and will introduce you to the critical legal issues surrounding the production and distribution of fashion. The practical units provide you with a variety of options to develop fashion related skills focusing on textile design, portfolio development and fashion journalism.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this second major.

KCB203	Consumption Matters: Consumer Cultures and Identity
KFB103	Introduction to Fashion
KFB106	Unspeakable Beauty: A History of Fashion and Style
KFB107	Drawing for Fashion
KFB205	Fashion and Style Journalism
KFB206	Fashion and Modernity
KFB207	Contemporary Fashion
KFB208	Fashion Portfolio
KFB209	Ragtrade: Wholesaling Fashion
KFB304	Fashion, Law and the Real World
KVB213	Graphic Investigation

### Film, Television and Screen

Description: The aim of this second major is to provide students with a range of understandings in the theory and practice of film, television and screen. This study area aims to enhance creative, technical and organisational abilities as well as building story telling and communication skills.

Assumed Knowledge: There is no specific prior

### Games Design

Description: The aim of this second major is to provide you with a thorough and balanced education in the skills and knowledge required of a game or interactive media designer. You will gain an understanding of the design process associated with interactive environments and, through experience and analysis of the creative process, an understanding of how their work contributes to the computer games and interactive entertainment industry.

Assumed Knowledge: To be eligible to undertake INB272 you must have passed either INB103 or KIB101.

INB180	Computer Games Studies
INB181	Introduction to Games Production
INB280	Fundamentals of Game Design
INB272	Interaction Design
INB104	Building IT Systems
INB281	Advanced Game Design
KIB201	Concept Development for Game Design and Interactive Media
KIB202	Enabling Immersion

Note: KIB101 and KIB102 are permitted to count towards this major if they were completed in 2009 or earlier.

### Industrial Design

A full list of the units offered in this study package is available from:  
<http://www.bee.qut.edu.au/study/current/2major/min/majors/>

### Interior Design



A full list of the units offered in this study package is available from:  
<http://www.bee.qut.edu.au/study/current/2major/min/majors/>

## Integrated Marketing Communication

AMB202	Integrated Marketing Communication
AMB220	Advertising Theory and Practice
AMB263	Introduction To Public Relations
AMB331	Direct Marketing
AMB350	Sales and Customer Relationship Management
BSB126	Marketing
SELECT	Two units from AMB208, AMB230 or AMB261:
AMB208	Events Marketing
AMB230	Digital Promotions
AMB261	Media Relations and Publicity

Note: AMB240 and AMB260 are permitted to count towards the completion of this unit set if completed in 2009 or earlier.

## Interactive and Visual Design

Description: This second major will provide you with the design concepts and principles, practical skills and working methods needed by a contemporary designer of visual and interactive media. You will learn how to design effectively for print and electronic media, Web and mobile media and computer games and become equipped with a versatile set of design practices to support you to enter careers in marketing, web design, electronic publishing, interaction design and the creative aspects of game design.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this second major.

KIB101	Visual Communication
KIB102	Visual Interactions
KIB103	Introduction to Web Design and Development
KIB104	Digital Media
KIB214	Design for Interactive Media
KIB216	Advanced Web Design
KIB230	Interface and Information Design
KIB315	Contemporary Issues in Digital Media
KVB105	Drawing for Design
KVB204	Graphic Design

## Journalism, Media and Communication

Description: This second major offers you a range of options to develop an understanding of the parameters of the journalism and professional communication fields. You can choose a mix of units to suit your career aspirations. If you choose to focus more on the Journalism (KJB) units, the second major will introduce you to a range of journalism writing styles and offers an insight into some specialist areas of reporting. If you choose to focus more on the Media and Communication (KCB) units, it has been designed to enable you to develop

the skills and knowledge to prepare media material for organisations that wish to build, and maintain, a media profile.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this second major.

SELECT	Either KCB102 or KJB101:
KCB102	Media Myth Busting 1
KJB101	Digital Journalism
KJB120	Newswriting
KCB104	Media and Communications: Industries
KJB121	Journalistic Inquiry
KCB103	Strategic Speech Communication
KJB224	Feature Writing
KJB239	Journalism Ethics and Issues
SELECT	Either KFB205 or KJB280:
KFB205	Fashion and Style Journalism
KJB280	International Journalism
KCB301	Media Audiences
KCB302	Political Communication
SELECT	Either KCB304 or KJB337:
KCB304	Designing Communication Resources
KJB337	Public Affairs Reporting

## Landscape Architecture Studies

A full list of the units offered in this study package is available from:  
<http://www.bee.qut.edu.au/study/current/2major/min/majors/>

## Literary Studies

Description: The aims of this second major are to prepare students to graduate with adequate skills and knowledge in the area of literary and cultural studies; to provide a thorough grounding in a range of texts, both literary and popular, ranging from Shakespeare to nineteenth and twentieth century literature and culture; to provide graduates with enhanced skills in critical thinking, writing and analysis; to provide graduates with an understanding of the social and historical context of literary and popular written texts; to provide some understanding of the major approaches in literary theory.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this second major.

KWB108	Introduction To Literary Studies
KWB109	Writing Australia
KWB206	Youth and Children's Writing
KWB207	Great Books: Creative Writing Classics
KWB208	Modern Times (Literature and Culture in the 20th Century)
KWB209	Shakespeare, Then and Now
KWB210	Imagining the Americas: Contemporary American Literature and Culture

# FACULTY OF SCIENCE AND TECHNOLOGY

KWB308	Wonderlands: Literature and Culture in the 19th Century
KWB309	Popular Fictions, Popular Culture
	* KWB210 will be offered for the first time in semester 1 2012.

## Marketing

AMB200	Consumer Behaviour
AMB201	Marketing and Audience Research
AMB202	Integrated Marketing Communication
AMB240	Marketing Planning and Management
AMB335	E-marketing Strategies
AMB336	International Marketing
AMB340	Services Marketing
BSB126	Marketing
	Note: AMB359 is permitted to count towards the completion of this unit set if completed in 2009 or earlier.

## Music

Description: This second major aims to impart a broad understanding of music practice in contemporary social, cultural and economic contexts. It aims to provide students with a combination of practical and theoretical skills to support a career in music within administrative, business, or organisational areas.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this second major.

KDB225	Music Theatre Skills
KMB003	Sex Drugs Rock 'N' Roll
KMB004	World Music
KMB107	Sound, Image, Text
KMB119	Music and Sound Production 1
KMB122	Music and Sound Concepts 1
KMB129	Music and Sound Production 2
KMB132	Music and Sound Concepts 2
KMB200	Music Scenes and Subcultures
KMB301	The Music Industry

Please note: KKB345 is permitted to count towards this unit set if completed in 2010 or earlier.

## Online Environments

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this second major.

INB104	Building IT Systems
	Choose 3 of the following units (INB122 and INB210 cannot both be taken)
INB122	Organisational Databases
INB210	Databases
INB270	Programming
INB271	The Web

INB272	Interaction Design
	Choose 4 of the following INB 300-level units
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB340	Database Design
INB345	Mobile Devices
INB346	Enterprise 2.0
INB347	Web 2.0 Applications
INB370	Software Development
INB373	Web Application Development

## Public Relations

AMB201	Marketing and Audience Research
AMB202	Integrated Marketing Communication
AMB263	Introduction To Public Relations
AMB264	Public Relations Techniques
AMB372	Public Relations Planning
AMB373	Corporate Communication
AMB374	Global Public Relations Cases
BSB126	Marketing
	Note: AMB261, AMB262, AMB379 are permitted to count towards the completion of this unit set if completed in 2009 or earlier.

## Creative Industries Sub-Majors

### Art and Visual Culture (KAV)

Instructions: Complete any six of the below units.

KVB102	Modernism
KVB103	Australian Art
KVB108	Contemporary Asian Visual Culture
KVB110	2D Media and Processes
KVB111	3D Media and Processes
KVB211	Post 1945 Art
KVB304	Contemporary Art Issues
KVB306	Video Art and Culture

### Art History, Architecture and Design (KAA)

Instructions: Complete any six of the below units.

DAB325	Architecture in the 20th Century
DAB420	Architecture, Culture and Space
DAB525	Architecture and the City
DEB202	Introducing Design History
KVB102	Modernism
KVB211	Post 1945 Art
KVB212	Australian Art, Architecture and Design
KVB307	Theories of Spatial Culture

### Communication (KCN)

# FACULTY OF SCIENCE AND TECHNOLOGY

Instructions: Complete any six of the below units.

KCB101 Introduction to Media and Communication: Texts

KCB103 Strategic Speech Communication

KCB104 Media and Communications: Industries

KCB105 Media Myth Busting 2

KCB302 Political Communication

KKB004 Indigenous Creative Industries

KWB102 Media Writing

KWB106 Corporate Writing and Editing

## Computational Arts (KKC)

Instructions: Complete any six of the below units.

KIB101 Visual Communication

KIB103 Introduction to Web Design and Development

KIB105 Animation and Motion Graphics

KMB107 Sound, Image, Text

KMB129 Music and Sound Production 2

KVB211 Post 1945 Art

Note: ITB001, ITB003, KKB210, KKB211 and KVB202 are permitted to count towards this sub-major.

## Creative and Professional Writing (KCW)

Instructions: Complete any six of the below units.

KWB101 Introduction to Creative Writing

KWB102 Media Writing

KWB103 Persuasive Writing

KWB104 Creative Writing: the Short Story

KWB106 Corporate Writing and Editing

KWB107 Creative Non-Fiction

KWB206 Youth and Children's Writing

Note: KWB204 is permitted to count towards this sub-major.

## Creative Industries Management (KCI)

Instructions: Complete any six of the below units.

BSB115 Management

BSB126 Marketing

KTB104 Performance Innovation

KTB207 Staging Australia

KTB210 Creative Industries Management

KTB211 Creative Industries Events and Festivals

KTB306 Directing for Performance Events and Festivals

MGB223 Entrepreneurship and Innovation

## Dance (KDN)

KDB105 Architecture of the Body

KDB106 Dance Analysis

KDB108 World Dance

KDB109 Funk, Tap and all that Jazz

KDB110 Deconstructing Dance in History

KDB204 Australian Dance

## Digital Media (KDM)

Instructions: Complete any six of the below units.

KCB102 Media Myth Busting 1

KCB203 Consumption Matters: Consumer Cultures and Identity

KCB206 New Media: Internet, Self and Beyond

KCB207 Exploring New Media Worlds

KIB101 Visual Communication

KIB103 Introduction to Web Design and Development

KPB110 The Movie, TV & New Media Business

KVB306 Video Art and Culture

## Fashion, Art and Communication (KFA)

Instructions: Complete any six of the below units.

KCB203 Consumption Matters: Consumer Cultures and Identity

KFB103 Introduction to Fashion

KFB205 Fashion and Style Journalism

KFB206 Fashion and Modernity

KVB104 Photomedia and Artistic Practice

KVB108 Contemporary Asian Visual Culture

KVB212 Australian Art, Architecture and Design

Note: KFB203 is permitted to count towards this sub-major.

## Indigenous Studies (KIS)

Instructions: Complete any six of the below units.

EDB007 Culture Studies: Indigenous Education

EDB038 Indigenous Australian Culture Studies

EDB039 Indigenous Politics and Political Culture

EDB040 Indigenous Knowledge: Research Ethics and Protocols

EDB041 Indigenous Australia: Country, Kin and Culture

KWB109 Writing Australia

Note: JSB352, KKB004 and KWB307 are permitted to count towards this sub-major.

## Interaction Design (KIN)

Instructions: Complete any six of the below units.

KIB101 Visual Communication

KIB102 Visual Interactions

KIB103 Introduction to Web Design and Development

KIB104 Digital Media

# FACULTY OF SCIENCE AND TECHNOLOGY

KIB214	Design for Interactive Media
KIB230	Interface and Information Design
	Note: KIB210 (24 cps) is permitted to count towards this sub-major.

## Journalism (KJO)

	Instructions: Complete any six of the below units.
KFB205	Fashion and Style Journalism
KJB101	Digital Journalism
KJB120	Newsriting
KJB121	Journalistic Inquiry
KJB224	Feature Writing
KJB239	Journalism Ethics and Issues
KJB280	International Journalism
KJB337	Public Affairs Reporting

## Literary and Cultural Studies (KLC)

	Instructions: Complete any six of the below units.
KWB103	Persuasive Writing
KWB108	Introduction To Literary Studies
KWB109	Writing Australia
KWB206	Youth and Children's Writing
KWB207	Great Books: Creative Writing Classics
KWB208	Modern Times (Literature and Culture in the 20th Century)
KWB209	Shakespeare, Then and Now
KWB308	Wonderlands: Literature and Culture in the 19th Century
KWB309	Popular Fictions, Popular Culture

## Music and Sound Studies (KMS)

	Instructions: Complete any six of the below units.
KMB003	Sex Drugs Rock 'N' Roll
KMB004	World Music
KMB107	Sound, Image, Text
KMB119	Music and Sound Production 1
KMB122	Music and Sound Concepts 1
KMB129	Music and Sound Production 2
KMB301	The Music Industry
	Note: KMB002, KMB007, KMB104 and KMB204 are permitted to count towards this sub-major.

## Performance Studies (KTP)

	Instructions: Complete any six of the below units.
KTB101	20th Century Performance
KTB102	Process Drama
KTB103	Performing Skills 1: Character and Scene
KTB104	Performance Innovation

KTB106	Performing Skills 2: Style and Form
KTB204	Understanding Performance
KTB207	Staging Australia
KTB209	Applied Performance

## Screen Studies (KSC)

	Instructions: Complete any six of the below units.
KPB109	Film and TV History
KPB112	TV and Film Genres
KPB113	TV and Film Text Analysis
KPB205	Documentary Theory and Practice
KPB206	International Cinema
KPB212	Australian Film and TV

## Television (KTV)

KPB101	Introduction to Film, TV and New Media Production
KPB104	Film and Television Production Resource Management
KPB105	Narrative Production
KPB110	The Movie, TV & New Media Business
KPB112	TV and Film Genres
KPB303	Critical Thinking About Television

## IMPORTANT

Where it allows, students can take a maximum of 8 units outside the Creative Industries Faculty (depending on the course the student is currently enrolled in). The following submajors/minors are offered through the Faculty of Business. Students may take only ONE of these as a complete submajor. For information about availability of non-Creative Industries Units, contact the Course Coordinator

## Advertising (KAD)

AMB200	Consumer Behaviour
AMB220	Advertising Theory and Practice
AMB318	Advertising Copywriting
AMB319	Media Planning
AMB320	Advertising Management
BSB126	Marketing

## Entrepreneurship (KEN)

	Instructions: Complete any six of the below units.
AMB251	Innovation and Brand Management
BSB115	Management
BSB126	Marketing
MGB200	Leading Organisations
MGB223	Entrepreneurship and Innovation
MGB324	Managing Business Growth
	Note: BSB212 and AMB202 are permitted to



be counted towards this sub-major if completed in 2009 or earlier.

## Public Relations (KPR)

AMB201	Marketing and Audience Research
AMB263	Introduction To Public Relations
AMB264	Public Relations Techniques
AMB372	Public Relations Planning
AMB373	Corporate Communication
BSB126	Marketing

Note: AMB261 and AMB262 are permitted to count towards this sub-major if completed in 2009 or earlier.

## Creative Industries Minor Options

### INSTRUCTIONS FOR MINORS

\* Minors offered by other faculties can be accessed through 'University Wide Minor Options' and 'Language Minor Options'. Some minors to consider include: Advertising, Architectural Studies, Collaborative Digital Design, Game Design, Entrepreneurship, Information Technology, Integrated Marketing Communication, Interior Design Studies, International Business, Lighting, Management, Marketing, Mathematics, and Public Relations.

Please refer to the following study sequences to plan your program. You must complete 48 credit points (normally four 12 credit point subjects) from the specified units to achieve a minor, following semester of offer and unit prerequisites (where applicable) to determine order of enrolment. Any unit(s) that appear in these majors and/or minors and are also mandatory elsewhere in your course can not contribute towards the completion of these majors and/or minors. Any unit(s) that appear in multiple majors and/or minors can only contribute towards the completion of one of these majors or minors.

## Advanced Interactive Media

Description: This minor focuses on the design of interactive projects at the intersection of social and tangible media. Classes across the minor employ studio based approaches to teaching and learning, and as such provide students with space to develop their design practice through engaging project briefs.

KKB216	Graphical Development Environments for Media Interaction
KIB205	Programming for Visual Designers and Artists
KIB309	Embodied Interactions
KIB314	Tangible Media

## Animation

Description: The aim of this minor is to provide you with a broad understanding of animation through the combination of units that encompass drawing for animation with a unit that addresses computer animation processes. This is then contextualized through Animation Practices, which covers the history of

animation and considers the cultural significance of the form, and the diversity of practices.

Instructions: Choose any four (4) of the following six units:

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

## Art History

Description: This minor presents an introduction to the Second major art movements and issues in twentieth- and twenty-first century art. It actively fosters skills of visual and textual literacy by combining both in a coherent package of study. It will supplement the study for those interested in the arts as well as cognate disciplines such as design, fashion, media and architecture.

KVB102	Modernism
KVB103	Australian Art
KVB211	Post 1945 Art
KVB304	Contemporary Art Issues

## Art, Design and Architecture

Description: This minor introduces you to the cognate disciplines of art, design and architecture. Aspiring practitioners who wish to understand the historical and intellectual traditions of their fields will benefit from this minor, as will those who are considering future honours and postgraduate study in this field.

DAB325	Architecture in the 20th Century
DEB202	Introducing Design History
KVB212	Australian Art, Architecture and Design
KVB306	Video Art and Culture

## Audience and User Research

Description: The value of much creative and business activity is determined by its success with audiences and users and the ability to understand and research the people who engage with your outputs is vital. This minor provides you with a conceptual understanding of how audiences use media and cultural products and teaches practical skills in conducting qualitative and quantitative audience research.

KCB102	Media Myth Busting 1
KCB105	Media Myth Busting 2
KCB203	Consumption Matters: Consumer Cultures and Identity
KCB301	Media Audiences

## Communication for the Professions

Description: This minor provides you with



opportunity to understand the parameters of the journalism and professional communication fields.

Instructions: Choose any four (4) of the following five units:

KCB103	Strategic Speech Communication
KCB302	Political Communication
KCB304	Designing Communication Resources
KWB103	Persuasive Writing
KWB106	Corporate Writing and Editing

## Creative Writing

Description: This minor aims to prepare you with skills and knowledge in the area of creative writing and to enhance your critical, analytical and peer-reviewing skills.

Instructions: Choose any four (4) of the following six units:

KWB101	Introduction to Creative Writing
KWB102	Media Writing
KWB104	Creative Writing: the Short Story
KWB107	Creative Non-Fiction
KWB207	Great Books: Creative Writing Classics
KWB313	Novel and Memoir

\* Please note: KWB204 is permitted to count towards this unit set.

## Dance Studies

Description: This minor provides the opportunity to approach dance as a subject for critical, analytical and contextual study.

Instructions: Choose any four (4) of the following five units:

KDB105	Architecture of the Body
KDB106	Dance Analysis
KDB110	Deconstructing Dance in History
KDB204	Australian Dance
KDB225	Music Theatre Skills

## Digital Media

Description: This minor provides you with the opportunity to understand the guiding principles behind new modes of communication and creative industries practice.

Instructions: Choose any four (4) of the following five units:

KIB101	Visual Communication
KIB103	Introduction to Web Design and Development
KCB206	New Media: Internet, Self and Beyond
KCB207	Exploring New Media Worlds
KVB306	Video Art and Culture

## Drama

Description: This minor provides you with introductory concepts and practices

underpinning contemporary performance-making.

Instructions: Choose any four (4) of the following six units:

KDB225	Music Theatre Skills
KTB103	Performing Skills 1: Character and Scene
KTB104	Performance Innovation
KTB106	Performing Skills 2: Style and Form
KTB204	Understanding Performance
KTB305	The Entrepreneurial Artist

## Entertainment

Description: This minor provides you with an understanding of the characteristics of mainstream commercial culture that appeal to large audiences and an understanding both of business and creative processes.

BSB126	Marketing
KXB101	Introduction to Entertainment
KXB102	Global Entertainment
KXB201	Entertainment Practice: Balancing Creativity and Business

Note: KWB102 will be permitted to count towards this study package if completed in 2010 or earlier.

## Fashion

Description: This minor will provide you with an in depth knowledge and understanding of the history, theory and context of international fashion.

KFB103	Introduction to Fashion
KFB106	Unspeakable Beauty: A History of Fashion and Style
KFB206	Fashion and Modernity
KFB207	Contemporary Fashion

## Graphic Design

Description: This minor aims to prepare you with skills and knowledge in the area of visual design and communication for a range of print and electronic media contexts. It will provide you with a foundation in the conceptual and theoretical aspects of visual communication, graphic design and print media, and the technical skills required to apply them in studio projects.

Instructions: Choose any four (4) of the following five units:

KIB101	Visual Communication
KIB230	Interface and Information Design
KIB335	Typography and Illustration
KIB338	Print Media
KVB204	Graphic Design

## Interactive and Visual Design

Description: This minor aims to provide you with a foundational understanding of the design

concepts and principles, practical skills and working methods needed by a contemporary designer of visual and interactive media, including an introduction to visual communication, print media, web and interactive media and temporal digital media formats.

KIB101	Visual Communication
KIB102	Visual Interactions
KIB103	Introduction to Web Design and Development
KIB104	Digital Media

## Journalism

Description: This minor will introduce you to a range of key journalistic principles, approaches and writing styles.

KJB101	Digital Journalism
KJB120	Newsriting
KJB121	Journalistic Inquiry
KJB224	Feature Writing

## Literature

Description: This minor will provide you with a thorough grounding in a range of texts, literary, cultural and popular.

Instructions: Choose any four (4) of the following six units:

KWB108	Introduction To Literary Studies
KWB207	Great Books: Creative Writing Classics
KWB209	Shakespeare, Then and Now
KWB210	Imagining the Americas: Contemporary American Literature and Culture
KWB308	Wonderlands: Literature and Culture in the 19th Century
KWB309	Popular Fictions, Popular Culture

\* Please note: KWB307 is permitted to count towards this unit set. KWB109, KWB206 and KWB208 are permitted to count towards this unit set if completed in 2010 or earlier.

\* KWB210 will be offered for the first time in semester 1 2012.

## Modern and Popular Literature and Culture

Description: This minor will provide you with a thorough grounding in a range of modern, cultural and popular texts.

Instructions: Choose any four (4) of the following six units:

KWB109	Writing Australia
KWB206	Youth and Children's Writing
KWB208	Modern Times (Literature and Culture in the 20th Century)
KWB210	Imagining the Americas: Contemporary American Literature and Culture
KWB308	Wonderlands: Literature and Culture in the 19th Century
KWB309	Popular Fictions, Popular Culture

\* Please note: KWB108 is permitted to count towards this unit set if completed in 2010 or earlier.

\* KWB210 will be offered for the first time in semester 1 2012.

## Music Studies

Description: This minor provides you with understandings of new directions in music across styles, genres, cultures, disciplines and beliefs.

Instructions: Choose any four (4) of the following five units:

KDB225	Music Theatre Skills
KMB003	Sex Drugs Rock 'N' Roll
KMB004	World Music
KMB107	Sound, Image, Text
KMB200	Music Scenes and Subcultures

\* Please note: KMB002 is permitted to count towards this unit set.

## Performance Events and Festivals

Description: This minor provides you with understandings and skills in creative industries performance and management.

Instructions: Choose any four (4) of the following units. Only one unit may be selected from BSB126, KCB103 or KWB106:

KTB101	20th Century Performance
KTB207	Staging Australia
KTB210	Creative Industries Management
KTB211	Creative Industries Events and Festivals
KTB306	Directing for Performance Events and Festivals
SELECT	One unit from either BSB126, KCB103 or KWB106:
BSB126	Marketing
KCB103	Strategic Speech Communication
KWB106	Corporate Writing and Editing

## Professional Writing, Publishing and Editing

Description: The aim of this minor is to provide you with skills and knowledge in a variety of genres in the area of professional writing and to understand the demands of the writing and publishing industry.

Instructions: Choose any four (4) of the following five units:

KWB102	Media Writing
KWB103	Persuasive Writing
KWB106	Corporate Writing and Editing
KWB303	Writing and Publishing Industry
KWB304	Editing and Developing the Manuscript

## Scenography

Description: This minor will provide you with the practical and theoretical skills associated with the scenographic arts. It has been

designed to deliver a learning model that imparts broad design related skills for live performance. The focus will be on the traditional arts of model making, text analysis and drafting, incorporating contemporary approaches to current scenographic demands in the industry. These include the creation and control of time based media content and the display of the moving image.

Note: This minor is only available to Creative Industries Faculty single degree and IF27 students.

- KRB120 Scenography and the Art of Technical Theatre
- KRB121 Visual Theatre
- KRB220 The Scenographic Divide
- KRB221 Intermedial Applications for the Theatre
- Please note: KRB220 and KRB221 will be offered for the first time in 2012.

#### Screen Studies

Description: The aim of this minor is to provide students with an understanding of film and media, and their influence in social and cultural contexts.

Instructions: Choose any four (4) of the following five units:

- KPB109 Film and TV History
- KPB112 TV and Film Genres
- KPB205 Documentary Theory and Practice
- KPB206 International Cinema
- KPB212 Australian Film and TV

\* Please note: KPB203 is permitted to count towards this unit set.

#### Sound Design

Description: This minor introduces you to the practical world of sound production tools and techniques together with a secure theoretical underpinning.

Instructions: Choose any four (4) of the following five units:

- KKB216 Graphical Development Environments for Media Interaction
- KMB107 Sound, Image, Text
- KMB119 Music and Sound Production 1
- KMB129 Music and Sound Production 2
- KMB252 Multi-Platform Sound Design

\* Please note: Units completed as part of the Sound Studies minor (KKB004, KMB106, and KMB301) are permitted to towards this unit set if completed in 2010 or earlier.

#### Television

Description: The aim of this minor is to provide students with theoretical and practical understandings of television production, distribution and reception.

Instructions: Choose any four (4) of the following six units:

- KPB104 Film and Television Production Resource Management
- KPB110 The Movie, TV & New Media Business
- KPB112 TV and Film Genres
- KPB202 Film and Television Business Skills: Entrepreneurship and Investment
- KPB303 Critical Thinking About Television
- KPB313 How to be a Producer\*

\*This unit will be offered from 2012

#### Visual Arts Practice

Description: This minor introduces you to the essential principles of visual literacy. You will develop the fundamental skills of working with 2D and 3D media and understand the frameworks of display and audience engagement in the visual arts.

Instructions: Choose any four (4) of the following five units:

- KVB104 Photomedia and Artistic Practice
- KVB110 2D Media and Processes
- KVB111 3D Media and Processes
- KVB200 Exhibition and Display in the Visual Arts
- KVB213 Graphic Investigation

#### Creative Industries Transitions to New Professional Environments Unit Options

A maximum of 48 credit points may be taken from the following units:

- KKB341 Creative Industries Internship 1
- KKB342 Creative Industries Internship 2
- KKB345 Creative Industries Project 1
- KKB346 Creative Industries Project 2
- KKB347 Becoming A Researcher: Understandings, Skills and Practices
- KKB350 Creative Industries International Study Tour

\* Please note: KKB343 and KKB344 are permitted to count as Transitions to New Professional Environments Unit Options if completed in 2010 or earlier.

#### Creative Industries Faculty Undergraduate University Wide Unit Options (previously elective options)

##### Creative Industries Faculty Undergraduate University Wide Units

Please note: From 2010 elective units have been re-named Unit Options.

These unit offerings are current at the time of publication but are subject to change.

Rules for selecting Unit Options:

\* you must obey any Unit Option rules as set out in your course requirements

\* you cannot select a unit that forms part of the compulsory units of your course or the compulsory units of your chosen major area.

- \* you must have successfully completed any pre/co-requisite units applicable
- \* the offering of these units is subject to sufficient student enrolment numbers and staff availability
- \* some units are subject to quota restrictions
- \* KK33, KK34, KJ32, KM32, IX07, IX16 and IF27 students ONLY are permitted to select Unit Options from outside the Faculty of Creative Industries

## Creative Writing & Literary Studies

KWB101	Introduction to Creative Writing
KWB102	Media Writing
KWB103	Persuasive Writing
KWB104	Creative Writing: the Short Story
KWB106	Corporate Writing and Editing
KWB107	Creative Non-Fiction
KWB108	Introduction To Literary Studies
KWB109	Writing Australia
KWB206	Youth and Children's Writing
KWB207	Great Books: Creative Writing Classics
KWB208	Modern Times (Literature and Culture in the 20th Century)
KWB209	Shakespeare, Then and Now
KWB210	Imagining the Americas: Contemporary American Literature and Culture
KWB308	Wonderlands: Literature and Culture in the 19th Century
KWB309	Popular Fictions, Popular Culture
* Please note: KWB307 is permitted to count as a Unit Option if completed in 2009 or earlier.	
* KWB210 will be offered for the first time in semester 1 2012.	

## Dance

KDB105	Architecture of the Body
KDB106	Dance Analysis
KDB108	World Dance
KDB109	Funk, Tap and all that Jazz
KDB110	Deconstructing Dance in History
KDB204	Australian Dance
KDB225	Music Theatre Skills

## Entertainment

KXB101	Introduction to Entertainment
KXB102	Global Entertainment
KXB201	Entertainment Practice: Balancing Creativity and Business

## Faculty

KKB101	Creative Industries: People and Practices
KKB102	Creative Industries: Making Connections
KKB216	Graphical Development Environments for

	Media Interaction
KKB345	Creative Industries Project 1
KKB346	Creative Industries Project 2

## Fashion

KFB103	Introduction to Fashion
KFB106	Unspeakable Beauty: A History of Fashion and Style
KFB205	Fashion and Style Journalism
KFB206	Fashion and Modernity
KFB207	Contemporary Fashion
KFB208	Fashion Portfolio
KFB209	Ragtrade: Wholesaling Fashion

## Film & Television

KPB101	Introduction to Film, TV and New Media Production
KPB104	Film and Television Production Resource Management
KPB109	Film and TV History
KPB110	The Movie, TV & New Media Business
KPB112	TV and Film Genres
KPB113	TV and Film Text Analysis
KPB205	Documentary Theory and Practice
KPB206	International Cinema
KPB207	Film and Television Scriptwriting
KPB303	Critical Thinking About Television
Please note the following unit changes:	
*KPB102, KPB103, KPB106, KPB107, and KPB108 are permitted to count as Unit Options if completed in 2009 or earlier.	
*KPB203 is permitted to count as a Unit Option if completed in 2010 or earlier.	
*KPB104 is permitted to count as a Unit Option if completed in 2011 or earlier.	

## Interactive & Visual Design

KIB101	Visual Communication
KIB102	Visual Interactions
KIB103	Introduction to Web Design and Development
KIB104	Digital Media
KIB105	Animation and Motion Graphics
KIB108	Animation History and Practices
KIB201	Concept Development for Game Design and Interactive Media
KIB202	Enabling Immersion

## Journalism

KJB101	Digital Journalism
KJB120	Newswriting
KJB121	Journalistic Inquiry
KJB224	Feature Writing



# FACULTY OF SCIENCE AND TECHNOLOGY

KJB239	Journalism Ethics and Issues
KJB280	International Journalism
KJB337	Public Affairs Reporting

## Media & Communication

KCB101	Introduction to Media and Communication: Texts
KCB102	Media Myth Busting 1
KCB103	Strategic Speech Communication
KCB104	Media and Communications: Industries
KCB105	Media Myth Busting 2
KCB206	New Media: Internet, Self and Beyond
KCB207	Exploring New Media Worlds
KCB203	Consumption Matters: Consumer Cultures and Identity
KCB302	Political Communication

## Music & Sound

KMB003	Sex Drugs Rock 'N' Roll
KMB004	World Music
KMB107	Sound, Image, Text
KMB119	Music and Sound Production 1
KMB122	Music and Sound Concepts 1
KMB129	Music and Sound Production 2
KMB132	Music and Sound Concepts 2
KMB200	Music Scenes and Subcultures
KMB252	Multi-Platform Sound Design
* Please note: KMB002, KMB007, KMB104, KMB105, and KMB108 are permitted to count as Unit Options if completed in 2009 or earlier. KMB106 is permitted to count as a Unit Option if completed in 2010 or earlier.	

## Performance Studies

KRB120	Scenography and the Art of Technical Theatre
KRB220	The Scenographic Divide
KTB101	20th Century Performance
KTB103	Performing Skills 1: Character and Scene
KTB104	Performance Innovation
KTB106	Performing Skills 2: Style and Form
KTB204	Understanding Performance
KTB207	Staging Australia
KTB210	Creative Industries Management
KTB211	Creative Industries Events and Festivals
* Please note: KSB215 is permitted to count as Unit Options if completed in 2010 or earlier.	
* KRB220 will be offered for the first time in 2012.	

## Visual Arts

KVB102	Modernism
KVB103	Australian Art

KVB104	Photomedia and Artistic Practice
KVB105	Drawing for Design
KVB106	Drawing for Animation
KVB108	Contemporary Asian Visual Culture
KVB110	2D Media and Processes
KVB111	3D Media and Processes
KVB211	Post 1945 Art
KVB212	Australian Art, Architecture and Design
KVB213	Graphic Investigation
KVB304	Contemporary Art Issues
KVB306	Video Art and Culture
KVB307	Theories of Spatial Culture

## Network Systems Major

### Compulsory Units

INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB255	Security

### Electives

INB312	Enterprise Systems Applications
INB365	Systems Programming
INB353	Wireless and Mobile Networks
INB355	Cryptology and Protocols

## Software Architecture Major

### Compulsory Units

INB340	Database Design
INB371	Data Structures and Algorithms
INB372	Agile Software Development

### Electives

Choose 3 Electives	
INB341	Software Development With Oracle
INB311	Enterprise Systems
INB312	Enterprise Systems Applications
INB272	Interaction Design
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB320	Business Process Modelling
INB365	Systems Programming
INB370	Software Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques
MAB281	Mathematics for Computer Graphics



MAB281 is only to be used as a prereq for  
INB381

### **Information Systems Major**

#### **Compulsory Units**

INB311	Enterprise Systems
INB340	Database Design
INB220	Business Analysis

#### **IS Elective Units**

INB312	Enterprise Systems Applications
INB342	Enterprise Data Mining and Data Analysis
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB320	Business Process Modelling
INB124	Information Systems Development
INB221	Technology Management

### **Potential Careers:**

Advertising Professional, Animator, Artist, Arts Administrator, Composer, Computer Game Programmer, Computer Games Developer, Creative Writer, D.J, Digital Composer, Film Composer, Film/Television Producer, Information Officer, Information Security Specialist, Internet Professional, Marketing Officer/Manager, Media Industry Specialist, Multimedia Designer, Music Agent/Manager, Music Publisher, Music Sampler, Music Teacher, Music Technologist, Musical Director, Musician, Organisational Communication Specialist, Public Relations Officer/Consultant, Recording Engineer, Song Writer, Sound and Music Producer, Sound Designer, Sound/Audio Engineer, Technical Officer, Web Designer.

## Bachelor of Information Technology/Bachelor of Mathematics (IX29)

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 059226F

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,027 per semester (indicative)

**International Fees (indicative):** 2011: \$11,375 (indicative) per semester

**QTAC code:** 419552

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA) and Maths B (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Course coordinator:** Dr Gary Carter (Mathematics Major), Mr Richard Thomas (Information Systems Major)

**Campus:** Gardens Point

### Course Update

From semester one, 2009 this course will not be available for commencing students. IX29 will only be available for continuing students. New students - please refer to IX57. Please contact [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au) for any enquiries.

### Professional Recognition

On graduation, students will be eligible for membership of the Mathematical Society of Australia, the Statistical Society of Australia Inc and, depending on unit selection, the Australian Society for Operations Research. Graduates of the Bachelor of Information Technology meet the knowledge requirement for admission to the Australian Computer Society.

### Course Design

This double degree comprises 384 credit points with 192 credit points from Information Technology and 192 credit points from Mathematics. All majors in the Bachelor of Information Technology are available.

### Cooperative Education Program

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your degree. Students wishing to participate in the Cooperative Education Program should be aware that they will not receive financial support as a Dean's Scholar for the duration of the placement.

Find out more about the Cooperative Education Program.

### Mathematics Bursaries

Students enrolled in this course can apply for industry-sponsored bursaries. These bursaries are awarded to

Australian citizens or permanent residents on a competitive basis. Applications should be submitted by 1 December of the year preceding entry to the course. For further information see [www.maths.qut.edu.au](http://www.maths.qut.edu.au)

### 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.

### Further Information

For further information about this course, please contact

Gary Carter (Mathematics) or Mr Richard Thomas (Information Systems)

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### Mathematics Units

#### Level 2 Units

MAB311	Advanced Calculus
MAB312	Linear Algebra
MAB313	Mathematics of Finance
MAB314	Statistical Modelling 2
MAB315	Operations Research 2
MAB413	Differential Equations
MAB414	Applied Statistics 2
MAB420	Computational Mathematics 2
MAB422	Mathematical Modelling
MAB461	Discrete Mathematics
MAB480	Introduction to Scientific Computation

Note: MAB311 Advanced Calculus and MAB312 Linear Algebra are mandatory units.

#### Level 3 Units - at least 4 units must be selected

MAB521	Applied Mathematics 3
MAB522	Computational Mathematics 3
MAB524	Statistical Inference
MAB525	Operations Research 3A
MAB533	Statistical Techniques
MAB536	Time Series Analysis
MAB613	Partial Differential Equations
MAB623	Financial Mathematics
MAB624	Applied Statistics 3

MAB625	Operations Research 3B
MAB640	Industry Project
MAB672	Advanced Mathematical Modelling
	Note: MAB523 Introduction to Quality Management and MAB621 Discrete Mathematics do not contribute to the mandatory 48 credit points minimum from Level 3 Mathematics units.

INB370	Software Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques
MAB281	Mathematics for Computer Graphics
	MAB281 is only to be used as a prereq for INB381

## Intelligent Systems Major (pre 2008)

### Compulsory Units

INB335	Information Resources
INB342	Enterprise Data Mining and Data Analysis
INB371	Data Structures and Algorithms
INB860	Computational Intelligence for Control and Embedded Systems
	IT Elective (INB383 and INB343 recommended)
	IT Elective
	6 Units required

## Network Systems Major

### Compulsory Units

INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB255	Security

### Electives

INB312	Enterprise Systems Applications
INB365	Systems Programming
INB353	Wireless and Mobile Networks
INB355	Cryptology and Protocols

## Software Architecture Major

### Compulsory Units

INB340	Database Design
INB371	Data Structures and Algorithms
INB372	Agile Software Development

### Electives

	Choose 3 Electives
INB341	Software Development With Oracle
INB311	Enterprise Systems
INB312	Enterprise Systems Applications
INB272	Interaction Design
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB320	Business Process Modelling
INB365	Systems Programming

## Course structure

This course has been discontinued. Currently enrolled students should check the Course Summary Sheet (via QUT Virtual) for enrolment and unit information.

## Potential Careers:

Actuary, Computer Game Programmer, Data Communications Specialist, Database Manager, Market Research Manager, Mathematician, Network Administrator, Network Manager, Programmer, Quantitative Analyst, Software Engineer, Statistician, Systems Analyst.

## Bachelor of Applied Science / Bachelor of Business (IX31)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 042263G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,358 per semester (indicative)

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419832

**Past rank cut-off:** 81

**Past OP cut-off:** 10

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr Perry Hartfield (Science and Technology); Director of Undergraduate Studies, QUT Business School; email: [bus@qut.edu.au](mailto:bus@qut.edu.au)

**Discipline coordinator:** Ms Sherrena Buckby (Accountancy); ASPRO Gayle Kerr (Advertising); Dr Tommy Tang (Economics); Dr John Chen (Finance); Mr Greg Southey (Human Resource Management); Mr Michael Cox (International Business); Dr Henri Burgers (Management); Mr Bill Proud (Marketing); and Ms Amisha Mehta (Public Relations); Science Discipline Coordinator details are listed under further information.

**Campus:** Gardens Point

### Overview

Through the combination of science and business, you will equip yourself for an exciting career at the cutting edge of scientific innovation within a range of public, private and non-profit industries. Your business degree will give you a broad base of commercial knowledge as well as the opportunity to major in a specific business area. This understanding of business makes you more attractive to employers, even if you wish to work predominantly in a science-based career.

### Career Outcomes

With a double degree in business and science you could gain employment as a consultant, marketer or project manager within firms developing and taking scientific research to the marketplace. You will also develop the entrepreneurial skills necessary to sell your abilities to a range of employers including government agencies, private enterprise and not-for-profit organisations.

### Professional Recognition

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

### 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.

### Further Information

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

#### Science Coordinator

Dr Perry Hartfield

Phone: +61 7 3138 2984

Email: [p.hartfield@qut.edu.au](mailto:p.hartfield@qut.edu.au)

#### Business Coordinator

Phone: +61 7 3138 2050

Email: [bus@qut.edu.au](mailto:bus@qut.edu.au)

### Science Discipline Coordinators

#### Biochemistry

Dr Perry Hartfield

Phone: +61 7 3138 2984

Email: [p.hartfield@qut.edu.au](mailto:p.hartfield@qut.edu.au)

#### Biotechnology

Dr Marion Bateson

Phone: +61 7 3138 1206

Email: [m.bateson@qut.edu.au](mailto:m.bateson@qut.edu.au)

#### Chemistry

Dr John McMurtrie

Phone: +61 7 3138 1220

Email: [j.mcmurtrie@qut.edu.au](mailto:j.mcmurtrie@qut.edu.au)

#### Ecology

Dr Ian Williamson

Phone: +61 7 3138 2779

Email: [i.williamson@qut.edu.au](mailto:i.williamson@qut.edu.au)

#### Environmental Science

Dr Robin Thwaites

Phone: +61 7 3138 2400

Email: [r.thwaites@qut.edu.au](mailto:r.thwaites@qut.edu.au)

#### Forensic Science

Dr Emad Kiriakous

Phone: +61 7 3138 2501

Email: [e.kiriakous@qut.edu.au](mailto:e.kiriakous@qut.edu.au)

#### Geoscience

Dr Gary Huftile

Phone: +61 7 3138 4470

Email: [g.huftile@qut.edu.au](mailto:g.huftile@qut.edu.au)

#### Microbiology

Dr Christine Knox

Phone: +61 7 3138 2304

Email: [c.knox@qut.edu.au](mailto:c.knox@qut.edu.au)

**Physics**

Dr Greg Michael  
 Phone: +61 7 3138 1584  
 Email: g.michael@qut.edu.au

**Full Time Course structure**

**Year 1 Semester 1**

Business School Core Unit  
 Business School Core Unit  
 Science Faculty Unit  
 Science Faculty Unit

**Year 1 Semester 2**

Business School Core Unit  
 Business School Core Unit  
 Science Faculty Unit  
 Science Faculty Unit

**Year 2 Semester 1**

Business School Core Unit  
 Business School Core Unit  
 Science Faculty Unit  
 Science Faculty Unit

**Year 2 Semester 2**

Business School Core Unit  
 Business School Major Unit  
 Science Faculty Unit  
 Science Faculty Unit

**Year 3 Semester 1**

Business School Major Unit  
 Business School Major Unit  
 Science Faculty Unit  
 Science Faculty Unit

**Year 3 Semester 2**

Business School Major Unit  
 Business School Major Unit  
 Science Faculty Unit  
 Science Faculty Unit

**Year 4 Semester 1**

Business School Major Unit  
 Business School Major Unit  
 Science Faculty Unit  
 Science Faculty Unit

**Year 4 Semester 2**

Business School Major Unit  
 Business School Major Unit

Science Faculty Unit

Science Faculty Unit

**Accountancy Major**

**Year 1 Semester 1**

BSB110    Accounting  
 BSB115    Management

**Year 1 Semester 2**

BSB124    Working in Business  
 BSB126    Marketing

**Year 2 Semester 1**

BSB111    Business Law and Ethics  
 BSB113    Economics

**Year 2 Semester 2**

AYB200    Financial Accounting  
 AYB225    Management Accounting

**Year 3 Semester 1**

EFB210    Finance 1  
 AYB221    Computerised Accounting Systems

**Year 3 Semester 2**

AYB219    Taxation Law  
 AYB340    Company Accounting

**Year 4 Semester 1**

AYB230    Corporations Law  
 AYB321    Strategic Management Accounting

**Year 4 Semester 2**

AYB301    Audit and Assurance  
 AYB311    Financial Accounting Issues

**Advertising Major**

**Year 1 Semester 1**

BSB126    Marketing  
 BSB113    Economics

**Year 1 Semester 2**

BSB110    Accounting  
 BSB115    Management

**Year 2 Semester 1**

BSB124    Working in Business  
 BSB119    Global Business

**Year 2 Semester 2**

AMB200    Consumer Behaviour  
 AMB220    Advertising Theory and Practice



**Year 3 Semester 1**

BSB111	Business Law and Ethics
AMB201	Marketing and Audience Research

**Year 3 Semester 2**

AMB318	Advertising Copywriting
AMB319	Media Planning

**Year 4 Semester 1**

AMB320	Advertising Management
AMB330	Advertising Planning Portfolio

**Year 4 Semester 2**

AMB339	Advertising Campaigns
MGB223	Entrepreneurship and Innovation

**Economics Major**

**Year 1 Semester 1**

BSB113	Economics
BSB115	Management

**Year 1 Semester 2**

BSB110	Accounting
BSB124	Working in Business

**Year 2 Semester 1**

BSB111	Business Law and Ethics
MGB223	Entrepreneurship and Innovation

**Year 2 Semester 2**

EFB222	Quantitative Methods For Economics and Finance
EFB223	Economics 2

**Year 3 Semester 1**

EFB330	Intermediate Macroeconomics
EFB331	Intermediate Microeconomics

**Year 3 Semester 2**

Choice units or remaining Business School Core Units

Choice units or remaining Business School Core Units

**Year 4 Semester 1**

Choice units or remaining Business School Core Units

Choice units or remaining Business School Core Units

**Year 4 Semester 2**

EFB338	Contemporary Application of Economic Theory
	Choice units or remaining Business School Core Units

**Choice units**

Choose any three of the following:

EFB332	Applied Behavioural Economics
EFB333	Introductory Econometrics
EFB334	Environmental Economics and Policy
EFB336	International Economics
EFB337	Game Theory and Applications

**Remaining Business Core Units**

Students must complete both remaining Business School Core Units

BSB119	Global Business
BSB126	Marketing

**Finance Major**

**Year 1 Semester 1**

BSB113	Economics
BSB115	Management

**Year 1 Semester 2**

BSB124	Working in Business
BSB126	Marketing

**Year 2 Semester 1**

BSB110	Accounting
BSB111	Business Law and Ethics

**Year 2 Semester 2**

BSB119	Global Business
MGB223	Entrepreneurship and Innovation

**Year 3 Semester 1**

EFB210	Finance 1
EFB222	Quantitative Methods For Economics and Finance

**Year 3 Semester 2**

EFB201	Financial Markets
EFB307	Finance 2

**Year 4 Semester 1**

EFB223	Economics 2
EFB335	Investments

**Year 4 Semester 2**

EFB312	International Finance
EFB340	Finance Capstone

**Human Resource Management Major**

**Year 1 Semester 1**

BSB113	Economics
BSB115	Management

**Year 1 Semester 2**

BSB124 Working in Business  
BSB126 Marketing

**Year 2 Semester 1**

BSB110 Accounting  
BSB111 Business Law and Ethics

**Year 2 Semester 2**

BSB119 Global Business  
MGB223 Entrepreneurship and Innovation

**Year 3 Semester 1**

MGB207 Human Resource Issues and Strategy  
MGB220 Business Research Methods

**Year 3 Semester 2**

MGB200 Leading Organisations  
MGB201 Contemporary Employment Relations

**Year 4 Semester 1**

MGB331 Learning and Development in Organisations  
MGB339 Performance and Reward

**Year 4 Semester 2**

MGB320 Recruitment and Selection  
MGB370 Personal and Professional Development

**International Business Major**

**Year 1 Semester 1**

BSB119 Global Business  
BSB126 Marketing

**Year 1 Semester 2**

BSB110 Accounting  
BSB115 Management

**Year 2 Semester 1**

BSB113 Economics  
BSB124 Working in Business

**Year 2 Semester 2**

BSB111 Business Law and Ethics  
MGB223 Entrepreneurship and Innovation

**Year 3 Semester 1**

AYB227 International Accounting  
MGB225 Intercultural Communication and Negotiation Skills

**Year 3 Semester 2**

AMB210 Importing and Exporting  
EFB240 Finance for International Business

**Year 4 Semester 1**

AMB303 International Logistics  
AMB336 International Marketing

**Year 4 Semester 2**

MGB340 International Business in the Asia-Pacific  
AMB369 International Business Strategy

**Management Major**

**Year 1 Semester 1**

BSB113 Economics  
BSB115 Management

**Year 1 Semester 2**

BSB124 Working in Business  
BSB126 Marketing

**Year 2 Semester 1**

BSB110 Accounting  
BSB111 Business Law and Ethics

**Year 2 Semester 2**

BSB119 Global Business  
MGB223 Entrepreneurship and Innovation

**Year 3 Semester 1**

MGB201 Contemporary Employment Relations  
MGB210 Managing Operations

**Year 3 Semester 2**

MGB200 Leading Organisations  
MGB225 Intercultural Communication and Negotiation Skills

**Year 4 Semester 1**

MGB309 Strategic Management  
MGB324 Managing Business Growth

**Year 4 Semester 2**

MGB310 Sustainability in A Changing Environment  
MGB335 Project Management

**Marketing Major**

**Year 1 Semester 1**

BSB113 Economics  
BSB126 Marketing

**Year 1 Semester 2**

BSB111 Business Law and Ethics  
BSB115 Management

**Year 2 Semester 1**

## FACULTY OF SCIENCE AND TECHNOLOGY

BSB119	Global Business
BSB124	Working in Business

### Year 2 Semester 2

BSB110	Accounting
MGB223	Entrepreneurship and Innovation

### Year 3 Semester 1

AMB200	Consumer Behaviour
AMB201	Marketing and Audience Research

### Year 3 Semester 2

AMB202	Integrated Marketing Communication
AMB240	Marketing Planning and Management

### Year 4 Semester 1

AMB335	E-marketing Strategies
AMB340	Services Marketing

### Year 4 Semester 2

AMB336	International Marketing
AMB359	Strategic Marketing

### Public Relations Major

#### Year 1 Semester 1

BSB119	Global Business
BSB126	Marketing

#### Year 1 Semester 2

BSB110	Accounting
BSB115	Management

#### Year 2 Semester 1

BSB113	Economics
BSB124	Working in Business

#### Year 2 Semester 2

AMB263	Introduction To Public Relations
AMB264	Public Relations Techniques

#### Year 3 Semester 1

AMB201	Marketing and Audience Research
BSB111	Business Law and Ethics

#### Year 3 Semester 2

AMB372	Public Relations Planning
AMB373	Corporate Communication

#### Year 4 Semester 1

AMB374	Global Public Relations Cases
AMB375	Public Relations Management

#### Year 4 Semester 2

AMB379	Public Relations Campaigns
MGB223	Entrepreneurship and Innovation

### Course structure - Major in Biochemistry

#### Year 1, Semester 1

SCB111	Chemistry 1
SCB112	Cellular Basis of Life

#### Year 1, Semester 2 (Life Sciences Pre-Major Strand)

SCB120	Plant and Animal Physiology
SCB121	Chemistry 2

#### Year 2, Semester 1

SCB110	Science Concepts and Global Systems
	Plus either:
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

#### Year 2, Semester 2

SCB122	Cell and Molecular Biology
SCB123	Physical Science Applications

#### Year 3, Semester 1

LQB381	Biochemistry: Structure and Function
LQB383	Molecular and Cellular Regulation

#### Year 3, Semester 2

LQB481	Biochemical Pathways and Metabolism
LQB483	Molecular Biology Techniques

#### Year 4, Semester 1

LQB581	Functional Biochemistry
LQB582	Biomedical Research Technologies

#### Year 4, Semester 2

LQB681	Biochemical Research Skills
LQB682	Protein Biochemistry and Bioengineering

### Course structure - Major in Biotechnology

#### Year 1, Semester 1

SCB111	Chemistry 1
SCB112	Cellular Basis of Life

#### Year 1, Semester 2 (Life Sciences Pre-Major Strand)

SCB120	Plant and Animal Physiology
SCB121	Chemistry 2

#### Year 2, Semester 1

SCB110	Science Concepts and Global Systems
	Plus either:
MAB101	Statistical Data Analysis 1

Or  
MAB105 Preparatory Mathematics

**Year 2, Semester 2**

SCB122 Cell and Molecular Biology  
SCB123 Physical Science Applications

**Year 3, Semester 1**

LQB381 Biochemistry: Structure and Function  
LQB383 Molecular and Cellular Regulation

**Year 3, Semester 2**

LQB483 Molecular Biology Techniques  
LQB484 Introduction to Genomics and Bioinformatics

**Year 4, Semester 1**

TWO units selected from:  
LQB583 Genetic Research Technology  
LQB584 Medical Cell Biology  
LQB585 Plant Genetic Manipulation

**Year 4, Semester 2**

TWO units selected from:  
LQB682 Protein Biochemistry and Bioengineering  
LQB684 Medical Biotechnology  
LQB685 Plant Microbe Interactions

**Course structure - Major in Chemistry**

**Year 1, Semester 1**

SCB111 Chemistry 1  
Plus either:  
MAB101 Statistical Data Analysis 1  
Or  
MAB105 Preparatory Mathematics

**Year 1, Semester 2 (Chemistry Pre-Major Strand)**

SCB112 Cellular Basis of Life  
SCB121 Chemistry 2

**Year 2, Semester 1**

MAB120 Algebra and Calculus  
SCB110 Science Concepts and Global Systems

**Year 2, Semester 2**

SCB123 Physical Science Applications  
SCB131 Experimental Chemistry

**Year 3, Semester 1**

PQB312 Analytical Chemistry For Scientists and Technologists  
PQB331 Structure and Bonding

**Year 3, Semester 2**

PQB401 Reaction Kinetics, Thermodynamics and Mechanisms

PQB442 Chemical Spectroscopy

**Year 4, Semester 1**

PQB502 Advanced Physical Chemistry  
PQB531 Organic Mechanisms and Synthesis

**Year 4, Semester 2**

PQB631 Advanced Inorganic Chemistry  
PQB642 Chemical Research

**Course structure - Major in Ecology**

**Year 1, Semester 1**

SCB111 Chemistry 1  
SCB112 Cellular Basis of Life

**Year 1, Semester 2 (Ecology and Environmental Science Pre-Major Strand)**

SCB120 Plant and Animal Physiology  
SCB122 Cell and Molecular Biology

**Year 2, Semester 1**

SCB110 Science Concepts and Global Systems  
Plus either:  
MAB101 Statistical Data Analysis 1  
Or  
MAB105 Preparatory Mathematics

**Year 2, Semester 2**

NQB201 Planet Earth  
NQB202 History of Life on Earth

**Year 3, Semester 1**

NQB302 Earth Surface Systems  
NQB321 Ecology

**Year 3, Semester 2**

NQB421 Experimental Design  
NQB422 Genetics and Evolution

**Year 4, Semester 1**

NQB521 Population Genetics and Molecular Ecology  
NQB523 Population Management

**Year 4, Semester 2**

NQB622 Conservation Biology  
NQB623 Ecological Systems

**Course structure - Major in Environmental Science**

**Year 1, Semester 1**

SCB111 Chemistry 1

# FACULTY OF SCIENCE AND TECHNOLOGY

SCB112 Cellular Basis of Life

## Year 1, Semester 2 (Ecology and Environmental Science Pre-Major Strand)

SCB120 Plant and Animal Physiology

SCB121 Chemistry 2

## Year 2, Semester 1

SCB110 Science Concepts and Global Systems

Plus either:

MAB101 Statistical Data Analysis 1

Or

MAB105 Preparatory Mathematics

## Year 2, Semester 2

NQB202 History of Life on Earth

SCB123 Physical Science Applications

## Year 3, Semester 1

NQB302 Earth Surface Systems

NQB321 Ecology

## Year 3, Semester 2

NQB403 Soils and the Environment

NQB421 Experimental Design

## Year 4, Semester 1

NQB501 Environmental Modelling

NQB502 Field Methods in Natural Resource Sciences

## Year 4, Semester 2

NQB601 Sustainable Environmental Management

NQB602 Environmental Chemistry

## Course structure - Major in Forensic Science

### Year 1, Semester 1

SCB111 Chemistry 1

SCB112 Cellular Basis of Life

### Year 1, Semester 2 (Forensic Science Pre-Major Strand)

SCB121 Chemistry 2

SCB122 Cell and Molecular Biology

### Year 2, Semester 1

SCB110 Science Concepts and Global Systems

Plus either:

MAB101 Statistical Data Analysis 1

Or

MAB105 Preparatory Mathematics

### Year 2, Semester 2

SCB123 Physical Science Applications

SCB131 Experimental Chemistry

## Year 3, Semester 1

LQB383 Molecular and Cellular Regulation

SCB384 Forensic Sciences - From Crime Scene to Court

## Year 3, Semester 2

JSB979 Forensic Scientific Evidence

PQB312 Analytical Chemistry For Scientists and Technologists

## Year 4, Semester 1

PQB513 Instrumental Analysis

PQB584 Forensic Physical Evidence

## Year 4, Semester 2

LQB680 Forensic DNA Profiling

PQB684 Forensic Analysis

## Course structure - Major in Geoscience

### Year 1, Semester 1

SCB111 Chemistry 1

SCB112 Cellular Basis of Life

### Year 1, Semester 2 (Geoscience Pre-Major Strand)

NQB201 Planet Earth

SCB123 Physical Science Applications

### Year 2, Semester 1

SCB110 Science Concepts and Global Systems

Plus either:

MAB101 Statistical Data Analysis 1

Or

MAB105 Preparatory Mathematics

### Year 2, Semester 2

NQB202 History of Life on Earth

SCB222 Exploration of the Universe

### Year 3, Semester 1

NQB311 Mineralogy

NQB314 Sedimentary Geology

### Year 3, Semester 2

NQB411 Petrology of Igneous and Metamorphic Rocks

NQB412 Structural Geology and Field Methods

### Year 4, Semester 1

NQB502 Field Methods in Natural Resource Sciences

NQB513 Geophysics

### Year 4, Semester 2



# FACULTY OF SCIENCE AND TECHNOLOGY

NQB613 Plate Tectonics  
NQB615 Geochemistry

## Course structure - Major in Microbiology

### Year 1, Semester 1

SCB111 Chemistry 1  
SCB112 Cellular Basis of Life

### Year 1, Semester 2 (Life Sciences Pre-Major Strand)

SCB120 Plant and Animal Physiology  
SCB121 Chemistry 2

### Year 2, Semester 1

SCB110 Science Concepts and Global Systems  
Plus either:  
MAB101 Statistical Data Analysis 1  
Or  
MAB105 Preparatory Mathematics

### Year 2, Semester 2

SCB122 Cell and Molecular Biology  
SCB123 Physical Science Applications

### Year 3, Semester 1

LQB381 Biochemistry: Structure and Function  
LQB386 Microbial Structure and Function

### Year 3, Semester 2

LQB483 Molecular Biology Techniques  
LQB486 Clinical Microbiology 1

### Year 4, Semester 1

LQB586 Clinical Microbiology 2  
LQB587 Applied Microbiology 1: Water, Air and Soil

### Year 4, Semester 2

LQB686 Microbial Technology and Immunology  
LQB687 Applied Microbiology 2: Food and Quality Assurance

## Course structure - Major in Physics

### Year 1, Semester 1

MAB121 Calculus and Differential Equations  
Or  
MAB120 Algebra and Calculus  
SCB111 Chemistry 1  
Students who have completed only Maths B are required to take MAB120. Students who have completed both Maths B and Maths C should take MAB121.

### Year 1, Semester 2 (Physics Pre-Major Strand)

MAB122 Algebra and Analytic Geometry

PQB250 Mechanics and Electromagnetism

### Year 2, Semester 1

SCB110 Science Concepts and Global Systems  
SCB112 Cellular Basis of Life

### Year 2, Semester 2

MAB220 Computational Mathematics 1  
Or  
MAB121 Calculus and Differential Equations  
PQB251 Waves and Optics

### Year 3, Semester 1

MAB311 Advanced Calculus  
PQB350 Thermodynamics of Solids and Gases

### Year 3, Semester 2

PQB450 Energy, Fields and Radiation  
PQB451 Electronics and Instrumentation

### Year 4, Semester 1

PQB550 Quantum and Condensed Matter Physics  
PQB551 Physical Analytical Techniques

### Year 4, Semester 2

PQB650 Advanced Theoretical Physics  
PQB651 Experimental Physics

## Accountancy Major - Students who commenced in 2007-2008

### Year 1 Semester 1

BSB110 Accounting  
BSB115 Management

### Year 1 Semester 2

BSB114 now replaced by BSB124 Working in Business  
BSB126 Marketing  
or  
BSB119 Global Business

### Year 2 Semester 1

BSB111 Business Law and Ethics  
BSB113 Economics

### Year 2 Semester 2

AYB200 Financial Accounting  
AYB230 Corporations Law

### Year 3 Semester 1

AYB225 Management Accounting  
AYB340 Company Accounting

### Year 3 Semester 2

AYB219 Taxation Law  
 AYB221 Computerised Accounting Systems

## Year 4 Semester 1

AYB301 Audit and Assurance  
 AYB321 Strategic Management Accounting  
 or  
 AYB311 Financial Accounting Issues

## Year 4 Semester 2

AYB339 Accountancy Capstone  
 EFB210 Finance 1

## International Business Major - Students who commenced in 2007-2008

### Year 1 Semester 1

BSB119 Global Business  
 BSB126 Marketing

### Year 1 Semester 2

BSB110 Accounting  
 BSB115 Management

### Year 2 Semester 1

BSB113 Economics  
 BSB124 Working in Business

### Year 2 Semester 2

BSB111 Business Law and Ethics  
 EFB240 Finance for International Business

### Year 3 Semester 1

MGB225 Intercultural Communication and Negotiation Skills  
 IBB208 Please contact the School of AMPR regarding alternative unit  
 or  
 IBB217 Please contact the School of AMPR regarding alternative unit

### Year 3 Semester 2

AMB210 Importing and Exporting  
 MGB340 International Business in the Asia-Pacific

### Year 4 Semester 1

AMB369 International Business Strategy  
 IBB304 Please contact the School of AMPR regarding alternative unit

### Year 4 Semester 2

AMB303 International Logistics  
 AMB336 International Marketing

## Public Relations Major - Students who commenced in

**2007-2008**

### Year 1 Semester 1

BSB119 Global Business  
 BSB126 Marketing

### Year 1 Semester 2

BSB110 Accounting  
 BSB115 Management

### Year 2 Semester 1

AMB201 Marketing and Audience Research  
 BSB114 now replaced by BSB124 Working in Business

### Year 2 Semester 2

BSB111 Business Law and Ethics  
 BSB113 Economics

### Year 3 Semester 1

AMB202 Integrated Marketing Communication  
 AMB260 now replaced by AMB263 Introduction to Public Relations  
 AMB263 Introduction To Public Relations

### Year 3 Semester 2

AMB261 Please contact the School of AMPR regarding alternative unit  
 AMB262 Please contact the School of AMPR regarding alternative unit

### Year 4 Semester 1

AMB373 Corporate Communication  
 AMB374 Global Public Relations Cases

### Year 4 Semester 2

AMB379 Public Relations Campaigns  
 AMB375 Public Relations Management

## Human Resource Management Major - Students who commenced in 2007-2008

### Year 1 Semester 1

BSB113 Economics  
 BSB115 Management

### Year 1 Semester 2

BSB114 now replaced by BSB124 Working in Business  
 BSB126 Marketing

### Year 2 Semester 1

BSB110 Accounting  
 BSB111 Business Law and Ethics

### Year 2 Semester 2

BSB119 Global Business

MGB207 Human Resource Issues and Strategy

## Year 3 Semester 1

MGB220 Business Research Methods  
HRM Option Unit

## Year 3 Semester 2

MGB200 Leading Organisations  
HRM Option Unit

## Year 4 Semester 1

MGB331 Learning and Development in Organisations  
MGB339 Performance and Reward

## Year 4 Semester 2

MGB320 Recruitment and Selection  
HRM Option Unit

## HRM Option Unit List

Plus 3 units from the following list:

MGB201 Contemporary Employment Relations  
MGB210 Managing Operations  
MGB212 Sustainability in a Changing Environment  
MGB309 Strategic Management  
MGB314 Organisational Consulting and Change  
MGB335 Project Management  
MGB370 Personal and Professional Development  
HRM students must choose three units from the above list (one must be a Level 3 unit)

## Management Major - Students who commenced in 2007-2008

### Year 1 Semester 1

BSB113 Economics  
BSB115 Management

### Year 1 Semester 2

BSB114 now replaced by BSB124 Working in Business  
BSB126 Marketing

### Year 2 Semester 1

BSB110 Accounting  
BSB111 Business Law and Ethics

### Year 2 Semester 2

BSB119 Global Business  
MGB200 Leading Organisations

### Year 3 Semester 1

MGB210 Managing Operations  
MGB223 Entrepreneurship and Innovation

### Year 3 Semester 2

MGB212 Sustainability in a Changing Environment  
Management Option Unit

## Year 4 Semester 1

MGB309 Strategic Management  
Management Option Unit

## Year 4 Semester 2

MGB335 Project Management  
Management Option Unit

## Management Option Unit List

Plus 3 units from the following list:

MGB201 Contemporary Employment Relations  
MGB218 Managing Business Growth  
MGB225 Intercultural Communication and Negotiation Skills  
MGB314 Organisational Consulting and Change  
MGB370 Personal and Professional Development

Management students must choose three units from the above list (one must be a Level 3 unit).

## Potential Careers:

Academic, Account Executive, Accountant, Advertising Professional, Analytical Chemist, Astrophysicist, Banker, Banking and Finance Professional, Biochemist, Biologist, Biomechanical Engineer, Biomedical Engineer, Biotechnologist, Business Analyst, Chemist, Chemist Industrial, Clinical Laboratory Scientist, Coastal Scientist, Conservation Biologist, Ecologist, Economist, Environmental Scientist, Estimator, Exchange Student, Financial Advisor/Analyst, Financial Project Manager, Forensic Scientist, Funds Manager, Geologist, Geophysicist, Geoscientist, Government Officer, Health Physicist, Home Economist, Human Resource Developer, Human Resource Manager, Hydrogeologist, Immunologist, Industrial Chemist, International Business Specialist, Investment Manager, Laboratory Technician (Chemistry), Manager, Marine Scientist, Marketing Officer/Manager, Medical Biotechnologist, Medical Physicist, Microbiologist, Molecular Biologist, Natural Resource Scientist, Physicist, Plant Biotechnologist, Policy Officer, Population Ecologist, Programmer, Public Relations Officer/Consultant, Public Servant, Stockbroker, Virologist.

## **Bachelor of Business/Bachelor of Information Technology (IX33)**

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 059595C

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$4,209 per semester (indicative)

**International Fees (indicative):** 2011: \$10,875 (indicative) per semester

**QTAC code:** 419202

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA), 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:** 384

**Course coordinator:** Director of Undergraduate Studies, QUT Business School; email: [bus@qut.edu.au](mailto:bus@qut.edu.au); Associate Professor Richard Thomas (Science and Technology)

**Discipline coordinator:** Ms Sherrena Buckby (Accountancy); ASPRO Gayle Kerr (Advertising); Dr Tommy Tang (Economics); Dr John Chen (Finance); Mr Greg Southey (Human Resource Management); Mr Michael Cox (International Business); Dr Henri Burgers (Management); Mr Bill Proud (Marketing); and Ms Amisha Mehta (Public Relations)

**Campus:** Gardens Point

### **Course structure**

This course has been discontinued. Currently enrolled students should check with the relevant Faculty for course progression.

### **Information Systems Major**

#### **Compulsory Units**

INB311	Enterprise Systems
INB340	Database Design
INB220	Business Analysis

#### **IS Elective Units**

INB312	Enterprise Systems Applications
INB342	Enterprise Data Mining and Data Analysis
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB320	Business Process Modelling
INB124	Information Systems Development
INB221	Technology Management

### **Network Systems Major**

#### **Compulsory Units**

INB350	Internet Protocols and Services
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INB351	Unix Network Administration
INB352	Network Planning
INB255	Security

#### **Electives**

INB312	Enterprise Systems Applications
INB365	Systems Programming
INB353	Wireless and Mobile Networks
INB355	Cryptology and Protocols

### **Software Architecture Major**

#### **Compulsory Units**

INB340	Database Design
INB371	Data Structures and Algorithms
INB372	Agile Software Development

#### **Electives**

	Choose 3 Electives
INB341	Software Development With Oracle
INB311	Enterprise Systems
INB312	Enterprise Systems Applications
INB272	Interaction Design
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB320	Business Process Modelling
INB365	Systems Programming
INB370	Software Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques
MAB281	Mathematics for Computer Graphics
	MAB281 is only to be used as a prereq for INB381

### **Accountancy Major**

#### **Year 1 Semester 1**

BSB110	Accounting
BSB115	Management

#### **Year 1 Semester 2**

BSB123	Data Analysis
BSB124	Working in Business

#### **Year 2 Semester 1**

BSB111	Business Law and Ethics
BSB113	Economics

#### **Year 2 Semester 2**

AYB200	Financial Accounting
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AYB230 Corporations Law

## Year 3 Semester 1

AYB225 Management Accounting

AYB340 Company Accounting

## Year 3 Semester 2

AYB219 Taxation Law

AYB221 Computerised Accounting Systems

## Year 4 Semester 1

AYB301 Audit and Assurance

AYB311 Financial Accounting Issues

OR

AYB321 Strategic Management Accounting

## Year 4 Semester 2

EFB222 Quantitative Methods For Economics and Finance

EFB210 Finance 1

Note: Please refer to "Course Updates - List of re-coded and replacement Business units" to check for course structure changes.

## Advertising Major

### Year 1 Semester 1

BSB123 Data Analysis

BSB126 Marketing

### Year 1 Semester 2

BSB110 Accounting

BSB115 Management

### Year 2 Semester 1

BSB119 Global Business

BSB124 Working in Business

### Year 2 Semester 2

BSB111 Business Law and Ethics

BSB113 Economics

### Year 3 Semester 1

AMB200 Consumer Behaviour

AMB220 Advertising Theory and Practice

### Year 3 Semester 2

AMB318 Advertising Copywriting

AMB319 Media Planning

### Year 4 Semester 1

AMB320 Advertising Management

AMB330 Advertising Planning Portfolio

## Year 4 Semester 2

AMB339 Advertising Campaigns

AMB202 Integrated Marketing Communication

Note: Please refer to "Course Updates - List of re-coded and replacement Business units" to check for course structure changes.

## Banking and Finance Major

### Year 1 Semester 1

BSB113 Economics

BSB115 Management

### Year 1 Semester 2

BSB124 Working in Business

BSB126 Marketing

### Year 2 Semester 1

BSB110 Accounting

BSB111 Business Law and Ethics

### Year 2 Semester 2

BSB123 Data Analysis

BSB119 Global Business

### Year 3 Semester 1

EFB222 Quantitative Methods For Economics and Finance

EFB210 Finance 1

### Year 3 Semester 2

EFB223 Economics 2

EFB307 Finance 2

### Year 4 Semester 1

EFB333 Introductory Econometrics

EFB335 Investments

### Year 4 Semester 2

EFB312 International Finance

EFB201 Financial Markets

Note: Please refer to "Course Updates - List of re-coded and replacement Business units" to check for course structure changes.

## Economics Major

### Year 1 Semester 1

BSB113 Economics

BSB115 Management

### Year 1 Semester 2

BSB124 Working in Business



BSB126 Marketing

## Year 2 Semester 1

BSB110 Accounting

EFB223 Economics 2

## Year 2 Semester 2

BSB123 Data Analysis

BSB119 Global Business

## Year 3 Semester 1

EFB331 Intermediate Microeconomics

EFB330 Intermediate Macroeconomics

## Year 3 Semester 2

EFB222 Quantitative Methods For Economics and Finance

EFB328 Public Economics and Finance

## Year 4 Semester 1

BSB111 Business Law and Ethics

EFB200 Applied Regression Analysis

## Year 4 Semester 2

EFB338 Contemporary Application of Economic Theory

EFB314 International Trade and Economic Competitiveness

Note: Please refer to "Course Updates - List of re-coded and replacement Business units" to check for course structure changes.

## Human Resource Management Major

### Year 1 Semester 1

BSB113 Economics

BSB115 Management

### Year 1 Semester 2

BSB124 Working in Business

BSB126 Marketing

### Year 2 Semester 1

BSB110 Accounting

BSB111 Business Law and Ethics

### Year 2 Semester 2

BSB123 Data Analysis

BSB119 Global Business

### Year 3 Semester 1

MGB207 Human Resource Issues and Strategy

MGB220 Business Research Methods

### Year 3 Semester 2

MGB200 Leading Organisations

HRM Option Unit

## Year 4 Semester 1

MGB331 Learning and Development in Organisations

MGB339 Performance and Reward

## Year 4 Semester 2

MGB320 Recruitment and Selection

HRM Option Unit

## HRM Option Unit List

HRM students must choose two units from the above list (one must be a Level 3 unit).

MGB201 Contemporary Employment Relations

MGB210 Managing Operations

MGB310 Sustainability in A Changing Environment

MGB309 Strategic Management

MGB314 Organisational Consulting and Change

MGB370 Personal and Professional Development

MGB335 Project Management

## Important Note:

Note: Please refer to "Course Updates - List of re-coded and replacement Business units" to check for course structure changes.

## International Business Major

### Year 1 Semester 1

BSB126 Marketing

BSB119 Global Business

### Year 1 Semester 2

BSB110 Accounting

BSB115 Management

### Year 2 Semester 1

BSB123 Data Analysis

BSB124 Working in Business

### Year 2 Semester 2

BSB111 Business Law and Ethics

BSB113 Economics

### Year 3 Semester 1

EFB240 Finance for International Business

IBB217 Asian Business Development

OR

IBB208 European Business Development

### Year 3 Semester 2

AMB210 Importing and Exporting

IBB317 replaced by MGB340 International Business in

# FACULTY OF SCIENCE AND TECHNOLOGY

	the Asia-Pacific
	OR
IBB308	replaced by MGB340 International Business in the Asia-Pacific

## Year 4 Semester 1

AMB336	International Marketing
MGB225	Intercultural Communication and Negotiation Skills

## Year 4 Semester 2

AMB303	International Logistics
AMB369	International Business Strategy

## Important Note:

Note: Please refer to "Course Updates - List of re-coded and replacement Business units" to check for course structure changes.

## Management Major

### Year 1 Semester 1

BSB113	Economics
BSB115	Management

### Year 1 Semester 2

BSB124	Working in Business
BSB126	Marketing

### Year 2 Semester 1

BSB110	Accounting
BSB111	Business Law and Ethics

### Year 2 Semester 2

MGB200	Leading Organisations
BSB123	Data Analysis

### Year 3 Semester 1

MGB210	Managing Operations
MGB223	Entrepreneurship and Innovation

### Year 3 Semester 2

BSB119	Global Business
MGB310	Sustainability in A Changing Environment

### Year 4 Semester 1

MGB309	Strategic Management
	Management Option Unit

### Year 4 Semester 2

	Management Option Unit
MGB335	Project Management

## Management Option Unit List

Management students must choose two from the following list (one must be a Level 3 unit):

MGB201	Contemporary Employment Relations
MGB324	Managing Business Growth
MGB314	Organisational Consulting and Change
MGB370	Personal and Professional Development
MGB225	Intercultural Communication and Negotiation Skills

## Important Note:

Note: Please refer to "Course Updates - List of re-coded and replacement Business units" to check for course structure changes.

## Marketing Major

### Year 1 Semester 1

BSB123	Data Analysis
BSB126	Marketing

### Year 1 Semester 2

BSB110	Accounting
BSB115	Management

### Year 2 Semester 1

BSB124	Working in Business
BSB119	Global Business

### Year 2 Semester 2

BSB111	Business Law and Ethics
BSB113	Economics

### Year 3 Semester 1

AMB200	Consumer Behaviour
AMB240	Marketing Planning and Management

### Year 3 Semester 2

AMB201	Marketing and Audience Research
AMB335	E-marketing Strategies

### Year 4 Semester 1

AMB340	Services Marketing
AMB202	Integrated Marketing Communication

### Year 4 Semester 2

AMB359	Strategic Marketing
AMB252	Business Decision Making
	OR
AMB336	International Marketing

## Important Note:

Note: Please refer to "Course Updates - List of re-coded and replacement Business units" to check for course structure changes.

## Public Relations Major

### Year 1 Semester 1

# FACULTY OF SCIENCE AND TECHNOLOGY

BSB123 Data Analysis

BSB126 Marketing

## Year 1 Semester 2

BSB110 Accounting

BSB115 Management

## Year 2 Semester 1

BSB119 Global Business

BSB124 Working in Business

## Year 2 Semester 2

BSB111 Business Law and Ethics

BSB113 Economics

## Year 3 Semester 1

AMB201 Marketing and Audience Research

AMB263 Introduction To Public Relations

## Year 3 Semester 2

AMB261 Media Relations and Publicity

AMB262 Public Relations Writing

## Year 4 Semester 1

AMB374 Global Public Relations Cases

AMB360 Corporate Communication Management

## Year 4 Semester 2

AMB379 Public Relations Campaigns

AMB371 Corporate Communication Strategies

## Important Note:

Note: Please refer to "Course Updates - List of re-coded and replacement Business units" to check for course structure changes.

## Course Updates - List of re-coded and replacement Business units

### Faculty Core units

BSB114 is replaced by BSB124 Working in Business

BSB115 now retitled BSB115 Management

BSB119 now retitled BSB119 Global Business

BSB122 is replaced by BSB123 Data Analysis

### Accountancy Core units

AYB121 is now AYB200 Financial Accounting AYB121

AYB220 is now AYB340 Company Accounting AYB220

AYB301 now retitled AYB301 Audit and Assurance

### Advertising Core units

AMB221 is now AMB318 Advertising Copywriting

AMB222 is now AMB319 Media Planning

AMB321 is now AMB339 Advertising Campaigns

### Banking and Finance Core units

EFB101 is replaced by EFB222 Quantitative Methods for Economics and Finance

EFB102 now retitled EFB223 Economics 2

### Economics Core units

EFB101 is replaced by EFB222 Quantitative Methods for Economics and Finance

EFB102 now retitled EFB223 Economics 2

EFB202 is replaced by EFB330 Intermediate Macroeconomics

EFB211 is replaced by EFB331 Intermediate Microeconomics

EFB314 is replaced by EFB336 International Economics

EFB329 is now EFB338 Contemporary Application of Economic

### Electronic Business Core units

BSB212 is replaced by AYB114 Business Technologies

BSB213 is replaced by AYB115 Governance Issues and Fraud

BSB314 is replaced by Forensic and Business Intelligence

ITB233 is now INB312 Enterprise Systems Application

ITB823 is now INB830 Web Sites for E-Commerce

ITB239 is now INB342 Enterprise Data Mining

### Human Resource Management Core units

MGB220 now retitled MGB220 Business Research Methods

MGB221 is now MGB339 Performance and Reward

### International Business Core units

IBB202 is replaced by EFB240 Finance for International Business

IBB208 IBB208 is no longer offered. Please contact the School of AMPR regarding a replacement unit. (Email: ampradmin@qut.edu.au)

IBB210 is now replaced by AMB210 Importing and Exporting

IBB213 is now AMB336 International Marketing

IBB217 IBB217 is no longer offered. Please contact the School of AMPR regarding a replacement unit. (Email: ampradmin@qut.edu.au)

IBB300 is now AMB369 International Business Strategy

IBB308 is replaced by MGB340 International Business in the Asia-Pacific

### Management Core units

MGB310 Sustainability in a Changing Environment was formerly known as MGB212 and MGB334

### Marketing Core units

AMB241 is now AMB335 E-Marketing Strategies

AMB341 is now AMB359 Strategic Marketing

## Public Relations Core units

AMB260	is replaced by AMB263 Introduction to Public Relations
AMB360	is replaced by AMB373 Corporate Communication
AMB361	is replaced by AMB379 Public Relations Campaigns

## Business Law and Tax Extended Major (BLX)

AYB223	replaced by AYB230 Corporations Law
AYB325	is now AYB219 Taxation Law
AYB305	is replaced by AYB205 Law of Business Entities
AYB312	is now AYB232 Financial Institutions

## Professional Accounting Extended Major (PAX)

AYB223	is replaced by AYB230 Corporations Law
AYB325	is now AYB219 Taxation Law

## Advertising Extended Major (ADX)

AMB230	now retitled AMB230 Digital Promotions
AMB330	now retitled AMB330 Advertising Planning Portfolio

## Banking Extended Major (BFX)

AYB312	is now AYB232 Financial Institutions Law
EFB200	is replaced by EFB333 Introductory Econometrics
EFB318	is replaced by EFB335 Investments

## Financial Economics Extended Major (FEX) (for Banking & Finance Students)

EFB200	is replaced by EFB333 Introductory Econometrics
EFB202	is replaced by EFB330 Intermediate Macroeconomics
EFB211	is replaced by EFB331 Intermediate Microeconomics
EFB325	is replaced by EFB336 International Economics
EFB318	is replaced by EFB335 Investments
EFB324	is replaced by EFB337 Game Theory and Applications

## Financial Economics Extended Major (FEX) (for Economics Students)

EFB200	is replaced by EFB333 Introductory Econometrics
EFB324	is replaced by EFB201 Financial Markets
EFB325	is replaced by EFB337 Game Theory and Applications

## Funds Management Extended Major (FDX)

EFB318	is replaced by EFB335 Investments
AYB312	is now AYB232 Financial Institutions Law
EFB200	is replaced by EFB333 Introductory

## Econometrics

## Human Resource Management Extended Major (HRX)

MGB315	is now MGB370 Personal and Professional Development
IBB205	is now MGB225 Intercultural Communication and Negotiation Skills
MGB310	Sustainability in a Changing Environment was formerly known as MGB212 and MGB334

## International Business Extended Major (IBX)

IBB205	is now MGB225 Intercultural Communication and Negotiation Skills
IBB303	is now AMB303 International Logistics
AMB230	now retitled AMB230 Digital Promotions
IBB312	is replaced by AMB300 Independent Project 1

## Management Extended Major (MNX)

IBB205	is now MGB225 Intercultural Communication and Negotiation Skills
MGB218	is now MGB324 Managing Business Growth
MGB315	is now MGB370 Personal & Professional Development
IBB210	is replaced by AMB210 Import and Exporting
IBB303	is now AMB303 International Logistics

## Marketing Extended Major (MKX)

AMB251	now retitled AMB251 Innovation and Brand Management
AMB260	is replaced by AMB263 Introduction to Public Relations
AMB351	is now AMB209 Tourism Marketing
AMB352	is replaced by AMB252 Business Decision Making
AMB354	is now AMB208 Events Marketing
IBB213	is now AMB336 International Marketing
IBB303	is now AMB303 International Logistics

## Public Relations Extended Major (PRX)

AMB370	is replaced by AMB374 Global Public Relations Cases
AMB371	is replaced by AMB375 Public Relations Management

## Business Law and Tax Specialisation (BLS)

AYB223	is replaced by AYB230 Corporations Law
AYB325	is now AYB219 Taxation Law
AYB305	is now AYB205 Company Law & Practice
AYB312	is now AYB232 Financial Institutions Law
BSB213	is now AYB115 Governance Issues in E-Business

## Electronic Business Specialisation (EUS)

BSB212	is replaced by AYB114 Business Technologies
BSB213	is replaced by AYB115 Governance Issues and Fraud

# FACULTY OF SCIENCE AND TECHNOLOGY

BSB314	is replaced by AYB341 Forensic and Business Intelligence
ITB233	is now INB312 Enterprise Systems Applications
ITB823	is now INB830 Web Sites for E-Commerce
ITB239	is now INB342 Enterprise Data Mining

## Financial Economics Specialisation (FES)

EFB102	is replaced by EFB223 Economics 2
EFB202	is replaced by EFB330 Intermediate Macroeconomics
EFB211	is replaced by EFB331 Intermediate Microeconomics
EFB329	is now 338 Contemporary Applications of Economics
EFB314	is replaced by EB336 International Economics
EFB324	is replaced by EFB201 Financial Markets
EFB325	is replaced by EFB337 Game Theory and Applications

## Integrated Marketing Communication Specialisation (IMS)

AMB260	is replaced by AMB263 Introduction to Public Relations
AMB230	now retitled AMB230 Digital Promotions
AMB354	is now AMB208 Events Marketing

## International Logistics Specialisation (ILG)

IBB303	is now AMB303 International Logistics
BSB314	is replaced by AYB341 Forensic and Business Intelligence
IBB210	is replaced by AMB210 Importing and Exporting
EFB213	is replaced by AMB252 Business Decision Making (offered Sem 2); OR MGB335 Project Management (offered Sem 1 & 2)

## Sales Specialisation (SALES)

AMB230	now retitled AMB230 Digital Promotion
AMB250	is replaced by MGB225 Intercultural Communication and Negotiation Skills

## International Exchange Specialisation (IEX)

IBB205	is now MGB225 Intercultural Communication and Negotiation Skills
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## IX33 - Bachelor of Business/Bachelor of Information Technology Course structure 2009

### Course Structure 2009

From semester one, 2009 this course will not be available for commencing students. IX33 will only be available for continuing students. New students - please refer to IX58. Please contact fit.enquiry@qut.edu.au for any enquiries.

### Year 1, Semester 1

INB103	Industry Insights
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INB250	Systems Architecture
BBUS	Business Faculty Core Unit
BBUS	Business Faculty Core Unit

### Year 1, Semester 2

INB210	Databases
INB251	Networks
BBUS	Business Faculty Core Unit
BBUS	Business Faculty Core Unit

### Year 2, Semester 1

INB104	Building IT Systems
	Choose one unit from: Intermediate Level Elective list. This choice will replace ITB008 from 2009 course summary.
BBUS	Business Faculty Core Unit
BBUS	Business Faculty Core Unit

### Year 2, Semester 2

INB270	Programming
INB271	The Web
BBUS	Business Unit
BBUS	Business Unit

### Year 3, Semester 1

	IT Major Unit
	IT Major Unit
BBUS	Business Faculty Core Unit
BBUS	Business Faculty Core Unit

### Year 3 Semester 2

INB301	The Business of IT
	IT Major Unit
BBUS	Business Faculty Major Unit
BBUS	Business Faculty Major Unit

### Year 4, Semester 1

INB302	Capstone Project
	IT Major Unit
BBUS	Business Faculty Major Unit
BBUS	Business Faculty Major Unit

### Year 4, Semester 2

	IT Major Unit
	IT Major Unit
BBUS	Business Faculty Major Unit
BBUS	Business Faculty Major Unit

## IX33 - Bachelor of Business/Bachelor of Information Technology Course structure 2008

### Year 1, Semester 1

ITB002	IT Professional Studies
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## FACULTY OF SCIENCE AND TECHNOLOGY

ITB005	Systems Architecture
BBUS	Business Faculty Core Unit
BBUS	Business Faculty Core Unit

### Year 1, Semester 2

ITB004	Database Systems
ITB006	Networks
BBUS	Business Faculty Core Unit
BBUS	Business Faculty Core Unit

### Year 2, Semester 1

ITB001	Problem Solving and Programming
ITB008	Modelling Analysis and Design
BBUS	Business Faculty Core Unit
BBUS	Business Faculty Core Unit

### Year 2, Semester 2

ITB003	Object Oriented Programming
ITB007	Web Development
BBUS	Business Unit
BBUS	Business Unit

### Year 3, Semester 1

	IT Major Unit
	IT Major Unit
BBUS	Business Faculty Core Unit
BBUS	Business Faculty Core Unit

### Year 3 Semester 2

ITB009	Core Project Management
	IT Major Unit
BBUS	Business Faculty Major Unit
BBUS	Business Faculty Major Unit

### Year 4, Semester 1

ITB010	Core Project Implementation
	IT Major Unit
BBUS	Business Faculty Major Unit
BBUS	Business Faculty Major Unit

### Year 4, Semester 2

	IT Major Unit
	IT Major Unit
BBUS	Business Faculty Major Unit
BBUS	Business Faculty Major Unit

### Potential Careers:

Account Executive, Accountant, Actuary, Administrator, Advertising Professional, Banker, Banking and Finance Professional, Business Analyst, Certified Practicing Accountant, Computer Games Developer, Computer Salesperson/Marketer, Corporate Secretary, Database Manager, Economist, Electronic Commerce Developer,

Financial Advisor/Analyst, Financial Project Manager, Funds Manager, Government Officer, Home Economist, Human Resource Manager, Information Officer, Information Security Specialist, International Business Specialist, Internet Professional, Investment Manager, Manager, Marketing Officer/Manager, Multimedia Designer, Organisational Communication Specialist, Public Relations Officer/Consultant, Publishing Professional, Risk Manager, Stockbroker, Systems Analyst, Systems Manager, Systems Programmer, Systems Trainer, Technical Officer, Trainer, Web Designer.

## Bachelor of Business / Bachelor of Mathematics (IX37)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 059601K

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,358 per semester (indicative)

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419212

**Past rank cut-off:** 81

**Past OP cut-off:** 10

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Director of Undergraduate Studies, QUT Business School; email: [bus@qut.edu.au](mailto:bus@qut.edu.au); Prof Erhan Kozan (Science and Technology)

**Discipline coordinator:** Ms Sherrena Buckby (Accountancy); ASPRO Gayle Kerr (Advertising); Dr Tommy Tang (Economics); Dr John Chen (Finance); Mr Greg Southey (Human Resource Management); Mr Michael Cox (International Business); Dr Henri Burgers (Management); Mr Bill Proud (Marketing); and Ms Amisha Mehta (Public Relations)

**Campus:** Gardens Point

### Overview

Accountancy, economics or finance are ideal business majors to accompany your mathematics degree, as you will learn how to undertake the sophisticated economic and financial modelling that is integral to business and government decision making. Your mathematics degree will prepare you for a career in finance, investment, information technology, environmental management, health, marketing, logistics, defence, media, education and research. Graduates are highly valued for their analytical and problem-solving skills. Development of skills in communication, problem solving, critical thinking and teamwork form an integral part of the course.

In the business component of this double degree, you will gain broad-based business knowledge and skills that will prepare you for any business role, along with the specialist skills and knowledge in your choice of business major.

### Career Outcomes

Combining business and mathematics offers diverse and sustainable career opportunities.

An economics major may be useful to chart a career in actuarial areas of insurance and superannuation, although further study is required in order to qualify as an actuary.

A key role of accountants is analysing and interpreting financial data to provide business advice to clients, and the quantitative skills in the mathematics degree enhance this process. Advanced statistical analysis skills may assist marketing professionals while knowledge of logistics can assist managers in a wide range of industries. Graduates may find employment as accountants, advertising professionals, finance consultants, economists, human resource managers, international business specialists, managers, marketing officers or public relations officers.

The financial sector employs qualitative analysts to optimise returns in both the short-term and long-term, trading and pricing derivatives, to analyse quantitative risk, and work in investment strategy.

Graduates may also become actuarial trainees in the insurance and superannuation area although further study is required in order to qualify as an actuary.

### Professional Recognition

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

### Financial Support

You should consider applying for an industry-sponsored mathematics bursary or a business scholarship to help you financially throughout your studies. For further information visit Scholarships.

### Course Design

Students are required to complete 384 credit points comprised of 192 credit points from the Bachelor of Mathematics program and 192 credit points from the Bachelor of Business program.

**Business component:**

2009 and 2010 commencing students

- 7 Business School Core units (96 credit points)\*
- 8 Major Core units (96 credit points)
- MGB223 Entrepreneurship and Innovation\*

2007-2008 commencing students

- 7 Business School Core units (84 credit points)\*
- 9 Major Core units (108 credit points)

\*Please note that BSB122 Quantitative Analysis & Finance (Replaced by BSB123 Data Analysis) is not required as the content of MAB313 Mathematics of Finance covers similar topics. An additional unit from the chosen major replaces BSB122/BSB123 for 2007 and 2008 commencing students. MGB223 Entrepreneurship and Innovation replaces BSB122/BSB123 for 2009 and 2010 commencing students.

\* Please note that EFB101 Data Analysis for Business which is normally undertaken in the Majors of Accountancy, Banking & Finance and Economics, is not required as the content will be covered in the statistics units from the mathematics component of the program.

### 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.

### Further Information

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

#### **Business Coordinator**

Phone: Student Services +61 7 3138 2117

Email: Student Services bus@qut.edu.au

#### **Science and Technology Coordinator**

Prof Erhan Kozan

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

### Full Time Course structure

#### Year 1 Semester 1

Business School Core Unit  
Business School Core Unit  
Mathematics Unit  
Mathematics Unit

#### Year 1 Semester 2

Business School Core Unit  
Business School Core Unit  
Mathematics Unit  
Mathematics Unit

#### Year 2 Semester 1

Business School Core Unit  
Business School Core Unit  
Mathematics Unit  
Mathematics Unit

#### Year 2 Semester 2

Business School Core Unit  
Business School Major Unit  
Mathematics Unit  
Mathematics Unit

#### Year 3 Semester 1

Business School Major Unit  
Business School Major Unit  
Mathematics Unit  
Mathematics Unit

#### Year 3 Semester 2

Business School Major Unit

Business School Major Unit

Mathematics Unit

Mathematics Unit

#### Year 4 Semester 1

Business School Major Unit

Business School Major Unit

Mathematics Unit

Mathematics Unit

#### Year 4 Semester 2

Business School Major Unit

Business School Major Unit

Mathematics Unit

Mathematics Unit

### Accountancy Major

#### Year 1 Semester 1

BSB110 Accounting  
BSB115 Management

#### Year 1 Semester 2

BSB124 Working in Business  
BSB126 Marketing

#### Year 2 Semester 1

BSB111 Business Law and Ethics  
BSB113 Economics

#### Year 2 Semester 2

AYB200 Financial Accounting  
AYB225 Management Accounting

#### Year 3 Semester 1

EFB210 Finance 1  
AYB221 Computerised Accounting Systems

#### Year 3 Semester 2

AYB219 Taxation Law  
AYB340 Company Accounting

#### Year 4 Semester 1

AYB230 Corporations Law  
AYB321 Strategic Management Accounting

#### Year 4 Semester 2

AYB301 Audit and Assurance  
AYB311 Financial Accounting Issues

### Advertising Major

#### Year 1 Semester 1

BSB126 Marketing

BSB113 Economics

core units

## Year 1 Semester 2

BSB110 Accounting

BSB115 Management

Choice units or remaining Business School core units

## Year 2 Semester 1

BSB124 Working in Business

BSB119 Global Business

Choice units or remaining Business School core units

Choice units or remaining Business School core units

## Year 2 Semester 2

AMB200 Consumer Behaviour

AMB220 Advertising Theory and Practice

## Year 4 Semester 2

EFB338 Contemporary Application of Economic Theory

Choice units or remaining Business School core units

## Year 3 Semester 1

BSB111 Business Law and Ethics

AMB201 Marketing and Audience Research

## Year 3 Semester 2

AMB318 Advertising Copywriting

AMB319 Media Planning

## Choice units

Choose any three of the following:

EFB332 Applied Behavioural Economics

EFB333 Introductory Econometrics

EFB334 Environmental Economics and Policy

EFB336 International Economics

EFB337 Game Theory and Applications

## Year 4 Semester 1

AMB320 Advertising Management

AMB330 Advertising Planning Portfolio

## Important Note:

Note: BSB119 and BSB126 are the remaining Business School core units to be completed from the Business program.

## Year 4 Semester 2

AMB339 Advertising Campaigns

MGB223 Entrepreneurship and Innovation

## Finance Major

### Economics Major

## Year 1 Semester 1

BSB113 Economics

BSB115 Management

## Year 1 Semester 1

BSB113 Economics

BSB115 Management

## Year 1 Semester 2

BSB110 Accounting

BSB124 Working in Business

## Year 1 Semester 2

BSB124 Working in Business

BSB126 Marketing

## Year 2 Semester 1

BSB111 Business Law and Ethics

MGB223 Entrepreneurship and Innovation

## Year 2 Semester 1

BSB110 Accounting

BSB111 Business Law and Ethics

## Year 2 Semester 2

EFB222 Quantitative Methods For Economics and Finance

EFB223 Economics 2

## Year 2 Semester 2

BSB119 Global Business

MGB223 Entrepreneurship and Innovation

## Year 3 Semester 1

EFB330 Intermediate Macroeconomics

EFB331 Intermediate Microeconomics

## Year 3 Semester 1

EFB210 Finance 1

EFB222 Quantitative Methods For Economics and Finance

## Year 3 Semester 2

Choice units or remaining Business School

## Year 3 Semester 2

EFB201 Financial Markets

EFB307 Finance 2

## Year 4 Semester 1

EFB223 Economics 2  
EFB335 Investments

## Year 4 Semester 2

EFB312 International Finance  
EFB340 Finance Capstone

## Human Resource Management Major

### Year 1 Semester 1

BSB113 Economics  
BSB115 Management

### Year 1 Semester 2

BSB124 Working in Business  
BSB126 Marketing

### Year 2 Semester 1

BSB110 Accounting  
BSB111 Business Law and Ethics

### Year 2 Semester 2

BSB119 Global Business  
MGB223 Entrepreneurship and Innovation

### Year 3 Semester 1

MGB207 Human Resource Issues and Strategy  
MGB220 Business Research Methods

### Year 3 Semester 2

MGB200 Leading Organisations  
MGB201 Contemporary Employment Relations

### Year 4 Semester 1

MGB331 Learning and Development in Organisations  
MGB339 Performance and Reward

### Year 4 Semester 2

MGB320 Recruitment and Selection  
MGB370 Personal and Professional Development

## International Business Major

### Year 1 Semester 1

BSB119 Global Business  
BSB126 Marketing

### Year 1 Semester 2

BSB110 Accounting  
BSB115 Management

### Year 2 Semester 1

BSB113 Economics  
BSB124 Working in Business

### Year 2 Semester 2

BSB111 Business Law and Ethics  
MGB223 Entrepreneurship and Innovation

### Year 3 Semester 1

AYB227 International Accounting  
MGB225 Intercultural Communication and Negotiation Skills

### Year 3 Semester 2

AMB210 Importing and Exporting  
EFB240 Finance for International Business

### Year 4 Semester 1

AMB303 International Logistics  
AMB336 International Marketing

### Year 4 Semester 2

MGB340 International Business in the Asia-Pacific  
AMB369 International Business Strategy

## Management Major

### Year 1 Semester 1

BSB113 Economics  
BSB115 Management

### Year 1 Semester 2

BSB124 Working in Business  
BSB126 Marketing

### Year 2 Semester 1

BSB110 Accounting  
BSB111 Business Law and Ethics

### Year 2 Semester 2

BSB119 Global Business  
MGB223 Entrepreneurship and Innovation

### Year 3 Semester 1

MGB201 Contemporary Employment Relations  
MGB210 Managing Operations

### Year 3 Semester 2

MGB200 Leading Organisations  
MGB225 Intercultural Communication and Negotiation Skills

### Year 4 Semester 1

MGB309 Strategic Management  
MGB324 Managing Business Growth

### Year 4 Semester 2

MGB310 Sustainability in A Changing Environment



MGB335 Project Management

### Marketing Major

#### Year 1 Semester 1

BSB113 Economics

BSB126 Marketing

#### Year 1 Semester 2

BSB111 Business Law and Ethics

BSB115 Management

#### Year 2 Semester 1

BSB119 Global Business

BSB124 Working in Business

#### Year 2 Semester 2

BSB110 Accounting

MGB223 Entrepreneurship and Innovation

#### Year 3 Semester 1

AMB200 Consumer Behaviour

AMB201 Marketing and Audience Research

#### Year 3 Semester 2

AMB202 Integrated Marketing Communication

AMB240 Marketing Planning and Management

#### Year 4 Semester 1

AMB335 E-marketing Strategies

AMB340 Services Marketing

#### Year 4 Semester 2

AMB336 International Marketing

AMB359 Strategic Marketing

### Public Relations Major

#### Year 1 Semester 1

BSB119 Global Business

BSB126 Marketing

#### Year 1 Semester 2

BSB110 Accounting

BSB115 Management

#### Year 2 Semester 1

BSB113 Economics

BSB124 Working in Business

#### Year 2 Semester 2

AMB263 Introduction To Public Relations

AMB264 Public Relations Techniques

#### Year 3 Semester 1

AMB201 Marketing and Audience Research

BSB111 Business Law and Ethics

#### Year 3 Semester 2

AMB372 Public Relations Planning

AMB373 Corporate Communication

#### Year 4 Semester 1

AMB374 Global Public Relations Cases

AMB375 Public Relations Management

#### Year 4 Semester 2

AMB379 Public Relations Campaigns

MGB223 Entrepreneurship and Innovation

### Course structure for Students with Four Semesters of Senior Mathematics B and Senior Mathematics C

#### Year 1, Semester 1

MAB101 Statistical Data Analysis 1

MAB121 Calculus and Differential Equations

#### Year 1, Semester 2

MAB122 Algebra and Analytic Geometry

MAB210 Statistical Modelling 1

#### Year 2, Semester 1

MAB311 Advanced Calculus  
Mathematics Elective

#### Year 2, Semester 2

MAB220 Computational Mathematics 1  
Mathematics Elective

#### Year 3, Semester 1

MAB312 Linear Algebra  
Mathematics Elective

#### Year 3, Semester 2

Mathematics Elective  
Mathematics Elective

#### Year 4, Semester 1

Mathematics Elective  
Mathematics Elective

#### Year 4, Semester 2

Mathematics Elective  
Mathematics Elective

### Course Structure for Students with Four Semesters of Senior Mathematics B Only

#### Year 1, Semester 1

MAB101 Statistical Data Analysis 1

# FACULTY OF SCIENCE AND TECHNOLOGY

MAB120 Algebra and Calculus

## Year 1, Semester 2

MAB121 Calculus and Differential Equations

MAB122 Algebra and Analytic Geometry

## Year 2, Semester 1

MAB210 Statistical Modelling 1

MAB311 Advanced Calculus

## Year 2, Semester 2

MAB220 Computational Mathematics 1  
Mathematics Elective

## Year 3, Semester 1

MAB312 Linear Algebra  
Mathematics Elective

## Year 3, Semester 2

Mathematics Elective  
Mathematics Elective

## Year 4, Semester 1

Mathematics Elective  
Mathematics Elective

## Year 4, Semester 2

Mathematics Elective  
Mathematics Elective

## Mathematics Units

### Level 2 Units

MAB311 Advanced Calculus

MAB312 Linear Algebra

MAB313 Mathematics of Finance

MAB314 Statistical Modelling 2

MAB315 Operations Research 2

MAB413 Differential Equations

MAB414 Applied Statistics 2

MAB420 Computational Mathematics 2

MAB422 Mathematical Modelling

MAB461 Discrete Mathematics

MAB480 Introduction to Scientific Computation  
Note: MAB311 Advanced Calculus and MAB312 Linear Algebra are mandatory units.

### Level 3 Units - at least 4 units must be selected

MAB521 Applied Mathematics 3

MAB522 Computational Mathematics 3

MAB524 Statistical Inference

MAB525 Operations Research 3A

MAB533 Statistical Techniques

MAB536 Time Series Analysis

MAB613 Partial Differential Equations

MAB623 Financial Mathematics

MAB624 Applied Statistics 3

MAB625 Operations Research 3B

MAB640 Industry Project

MAB672 Advanced Mathematical Modelling

Note: MAB523 Introduction to Quality Management and MAB621 Discrete Mathematics do not contribute to the mandatory 48 credit points minimum from Level 3 Mathematics units.

## Accountancy Major Course Structure for Students with Maths B and C

### Year 1 Semester 1

BSB110 Accounting

BSB115 Management, People and Organisations

### Year 1 Semester 2

BSB114 Government, Business and Society

BSB126 Marketing

or

BSB119 International and Electronic Business

### Year 2 Semester 1

BSB111 Business Law and Ethics

BSB113 Economics

### Year 2 Semester 2

AYB121 Financial Accounting

AYB223 Law of Business Associations

### Year 3 Semester 1

AYB225 Management Accounting

AYB220 Company Accounting

### Year 3 Semester 2

AYB221 Computerised Accounting Systems

AYB325 Taxation Law

### Year 4 Semester 1

AYB301 Auditing

AYB311 Financial Accounting Issues

or

AYB321 Strategic Management Accounting

### Year 4 Semester 2

AYB339 Accountancy Capstone

EFB210 Finance 1

## Banking and Finance Major Course Structure for Students with Maths B and C

**Year 1 Semester 1**

BSB113 Economics  
BSB115 Management, People and Organisations

**Year 1 Semester 2**

BSB114 Government, Business and Society  
BSB126 Marketing

**Year 2 Semester 1**

BSB110 Accounting  
BSB111 Business Law and Ethics

**Year 2 Semester 2**

EFB102 Economics 2  
BSB119 International and Electronic Business

**Year 3 Semester 1**

EFB210 Finance 1  
EFB201 Financial Markets

**Year 3 Semester 2**

EFB307 Finance 2  
EFB312 International Finance

**Year 4 Semester 1**

EFB200 Applied Regression Analysis  
EFB318 Portfolio and Security Analysis

**Year 4 Semester 2**

Any Finance Unit  
Any Finance Unit

**Economics Major Course Structure for Students with Maths B and C**

**Year 1 Semester 1**

BSB113 Economics  
BSB115 Management, People and Organisations

**Year 1 Semester 2**

BSB114 Government, Business and Society  
BSB126 Marketing

**Year 2 Semester 1**

BSB110 Accounting  
EFB102 Economics 2

**Year 2 Semester 2**

EFB210 Finance 1  
BSB119 International and Electronic Business

**Year 3 Semester 1**

EFB211 Firms, Markets and Resources  
EFB202 Business Cycles and Economic Growth

**Year 3 Semester 2**

EFB328 Public Economics and Finance  
Any Economics unit

**Year 4 Semester 1**

BSB111 Business Law and Ethics  
EFB200 Applied Regression Analysis

**Year 4 Semester 2**

EFB329 Contemporary Applications of Economics Theory  
EFB314 International Trade and Economic Competitiveness

**International Business Major Course Structure for Students with Maths B and C**

**Year 1 Semester 1**

BSB126 Marketing  
BSB119 International and Electronic Business

**Year 1 Semester 2**

BSB110 Accounting  
BSB115 Management, People and Organisations

**Year 2 Semester 1**

BSB114 Government, Business and Society  
IBB202 Fundamentals of International Finance

**Year 2 Semester 2**

BSB111 Business Law and Ethics  
BSB113 Economics

**Year 3 Semester 1**

IBB205 Intercultural Communication and Negotiation  
IBB217 Asian Business Development  
or  
IBB208 European Business Development

**Year 3 Semester 2**

IBB210 Export Management  
IBB317 Contemporary Business in Asia  
or  
IBB308 Contemporary Business in Europe

**Year 4 Semester 1**

IBB300 International Business Strategy  
IBB304 Global Industry Analysis

**Year 4 Semester 2**

IBB213 International Marketing  
IBB303 International Logistics

**Marketing Major Course Structure for Students with**

**Maths B and C**

**Year 1 Semester 1**

BSB119	International and Electronic Business
BSB126	Marketing

**Year 1 Semester 2**

BSB110	Accounting
BSB115	Management, People and Organisations

**Year 2 Semester 1**

BSB114	Government, Business and Society
AMB200	Consumer Behaviour

**Year 2 Semester 2**

BSB111	Business Law and Ethics
BSB113	Economics

**Year 3 Semester 1**

AMB202	Integrated Marketing Communication
AMB240	Marketing Planning and Management

**Year 3 Semester 2**

AMB201	Marketing and Audience Research
AMB241	E-Marketing Strategies

**Year 4 Semester 1**

AMB340	Services Marketing
	Any Marketing unit

**Year 4 Semester 2**

AMB341	Strategic Marketing
AMB352	Marketing Decision Making
	or
IBB213	International Marketing

**Accountancy Course Structure for Students with Maths B**

**Year 1 Semester 1**

BSB110	Accounting
BSB115	Management, People and Organisations

**Year 1 Semester 2**

BSB126	Marketing
	or
BSB119	International and Electronic Business

**Year 2 Semester 1**

BSB111	Business Law and Ethics
BSB113	Economics

**Year 2 Semester 2**

AYB121	Financial Accounting
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AYB223	Law of Business Associations
BSB114	Government, Business and Society

**Year 3 Semester 1**

AYB225	Management Accounting
AYB220	Company Accounting

**Year 3 Semester 2**

AYB221	Computerised Accounting Systems
AYB325	Taxation Law

**Year 4 Semester 1**

AYB301	Auditing
AYB311	Financial Accounting Issues
	or
AYB321	Strategic Management Accounting

**Year 4 Semester 2**

AYB339	Accountancy Capstone
EFB210	Finance 1

**Banking & Finance Course Structure for Students with Maths B**

**Year 1 Semester 1**

BSB113	Economics
BSB115	Management, People and Organisations

**Year 1 Semester 2**

BSB114	Government, Business and Society
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**Year 2 Semester 1**

BSB110	Accounting
BSB111	Business Law and Ethics

**Year 2 Semester 2**

EFB102	Economics 2
BSB119	International and Electronic Business
BSB126	Marketing

**Year 3 Semester 1**

EFB210	Finance 1
EFB201	Financial Markets

**Year 3 Semester 2**

EFB307	Finance 2
EFB312	International Finance

**Year 4 Semester 1**

EFB200	Applied Regression Analysis
EFB318	Portfolio and Security Analysis

**Year 4 Semester 2**

	Any Finance Unit
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Any Finance Unit

**Economics Course Structure for Students with Maths B**

**Year 1 Semester 1**

BSB113 Economics  
BSB115 Management, People and Organisations

**Year 1 Semester 2**

BSB114 Government, Business and Society

**Year 2 Semester 1**

BSB110 Accounting  
EFB102 Economics 2

**Year 2 Semester 2**

BSB119 International and Electronic Business  
EFB210 Finance 1  
BSB126 Marketing

**Year 3 Semester 1**

EFB211 Firms, Markets and Resources  
EFB202 Business Cycles and Economic Growth

**Year 3 Semester 2**

Any Economics Unit  
EFB328 Public Economics and Finance

**Year 4 Semester 1**

BSB111 Business Law and Ethics  
EFB200 Applied Regression Analysis

**Year 4 Semester 2**

EFB329 Contemporary Applications of Economics Theory  
EFB314 International Trade and Economic Competitiveness

**International Business Course Structure for Students with Maths B**

**Year 1 Semester 1**

BSB119 International and Electronic Business  
BSB126 Marketing

**Year 1 Semester 2**

BSB110 Accounting

**Year 2 Semester 1**

BSB114 Government, Business and Society  
IBB202 Fundamentals of International Finance

**Year 2 Semester 2**

BSB111 Business Law and Ethics  
BSB113 Economics

BSB115 Management, People and Organisations

**Year 3 Semester 1**

IBB205 Intercultural Communication and Negotiation  
IBB217 Asian Business Development  
or  
IBB208 European Business Development

**Year 3 Semester 2**

IBB210 Export Management  
IBB317 Contemporary Business in Asia  
or  
IBB308 Contemporary Business in Europe

**Year 4 Semester 1**

IBB300 International Business Strategy  
IBB304 Global Industry Analysis

**Year 4 Semester 2**

IBB213 International Marketing  
IBB303 International Logistics

**Marketing Course Structure for Students with Maths B**

**Year 1 Semester 1**

BSB119 International and Electronic Business  
BSB126 Marketing

**Year 1 Semester 2**

BSB110 Accounting

**Year 2 Semester 1**

BSB114 Government, Business and Society  
AMB200 Consumer Behaviour

**Year 2 Semester 2**

BSB111 Business Law and Ethics  
BSB113 Economics  
BSB115 Management, People and Organisations

**Year 3 Semester 1**

AMB202 Integrated Marketing Communication  
AMB240 Marketing Planning and Management

**Year 3 Semester 2**

AMB201 Marketing and Audience Research  
AMB241 E-Marketing Strategies

**Year 4 Semester 1**

AMB340 Services Marketing  
Any Marketing Unit

**Year 4 Semester 2**

AMB341 Strategic Marketing



AMB352 Marketing Decision Making

or

IBB213 International Marketing

## Course Updates - List of re-coded and replacement Business units

### Faculty Core units

BSB114 is replaced by BSB124 Working in Business

BSB115 now retitled BSB115 Management

BSB119 now retitled BSB119 Global Business

BSB122 is replaced by BSB123 Data Analysis

### Accountancy Core units

AYB121 is now AYB200 Financial Accounting AYB121

AYB220 is now AYB340 Company Accounting AYB220

AYB301 now retitled AYB301 Audit and Assurance

### Advertising Core units

AMB221 is now AMB318 Advertising Copywriting

AMB222 is now AMB319 Media Planning

AMB321 is now AMB339 Advertising Campaigns

### Banking and Finance Core units

EFB101 is replaced by EFB222 Quantitative Methods for Economics and Finance

EFB102 now retitled EFB223 Economics 2

### Economics Core units

EFB101 is replaced by EFB222 Quantitative Methods for Economics and Finance

EFB102 now retitled EFB223 Economics 2

EFB202 is replaced by EFB330 Intermediate Macroeconomics

EFB211 is replaced by EFB331 Intermediate Microeconomics

EFB314 is replaced by EFB336 International Economics

EFB329 is now EFB338 Contemporary Application of Economic

### Electronic Business Core units

BSB212 is replaced by AYB114 Business Technologies

BSB213 is replaced by AYB115 Governance Issues and Fraud

BSB314 is replaced by Forensic and Business Intelligence

ITB233 is now INB312 Enterprise Systems Application

ITB823 is now INB830 Web Sites for E-Commerce

ITB239 is now INB342 Enterprise Data Mining

### Human Resource Management Core units

MGB220 now retitled MGB220 Business Research Methods

MGB221 is now MGB339 Performance and Reward

### International Business Core units

IBB202 is replaced by EFB240 Finance for International Business

IBB208 IBB208 is no longer offered. Please contact the School of AMPR regarding a replacement unit. (Email: ampradmin@qut.edu.au)

IBB210 is now replaced by AMB210 Importing and Exporting

IBB213 is now AMB336 International Marketing

IBB217 IBB217 is no longer offered. Please contact the School of AMPR regarding a replacement unit. (Email: ampradmin@qut.edu.au)

IBB300 is now AMB369 International Business Strategy

IBB308 is replaced by MGB340 International Business in the Asia-Pacific

### Management Core units

MGB310 Sustainability in a Changing Environment was formerly known as MGB212 and MGB334

### Marketing Core units

AMB241 is now AMB335 E-Marketing Strategies

AMB341 is now AMB359 Strategic Marketing

### Public Relations Core units

AMB260 is replaced by AMB263 Introduction to Public Relations

AMB360 is replaced by AMB373 Corporate Communication

AMB361 is replaced by AMB379 Public Relations Campaigns

### Business Law and Tax Extended Major (BLX)

AYB223 replaced by AYB230 Corporations Law

AYB325 is now AYB219 Taxation Law

AYB305 is replaced by AYB205 Law of Business Entities

AYB312 is now AYB232 Financial Institutions

### Professional Accounting Extended Major (PAX)

AYB223 is replaced by AYB230 Corporations Law

AYB325 is now AYB219 Taxation Law

### Advertising Extended Major (ADX)

AMB230 now retitled AMB230 Digital Promotions

AMB330 now retitled AMB330 Advertising Planning Portfolio

### Banking Extended Major (BFX)

AYB312 is now AYB232 Financial Institutions Law

EFB200 is replaced by EFB333 Introductory Econometrics

EFB318 is replaced by EFB335 Investments

### Financial Economics Extended Major (FEX) (for Banking & Finance Students)

## FACULTY OF SCIENCE AND TECHNOLOGY

EFB200	is replaced by EFB333 Introductory Econometrics
EFB202	is replaced by EFB330 Intermediate Macroeconomics
EFB211	is replaced by EFB331 Intermediate Microeconomics
EFB325	is replaced by EFB336 International Economics
EFB318	is replaced by EFB335 Investments
EFB324	is replaced by EFB337 Game Theory and Applications

### Financial Economics Extended Major (FEX) (for Economics Students)

EFB200	is replaced by EFB333 Introductory Econometrics
EFB324	is replaced by EFB201 Financial Markets
EFB325	is replaced by EFB337 Game Theory and Applications

### Funds Management Extended Major (FDX)

EFB318	is replaced by EFB335 Investments
AYB312	is now AYB232 Financial Institutions Law
EFB200	is replaced by EFB333 Introductory Econometrics

### Human Resource Management Extended Major (HRX)

MGB315	is now MGB370 Personal and Professional Development
IBB205	is now MGB225 Intercultural Communication and Negotiation Skills
MGB310	Sustainability in a Changing Environment was formerly known as MGB212 and MGB334

### International Business Extended Major (IBX)

IBB205	is now MGB225 Intercultural Communication and Negotiation Skills
IBB303	is now AMB303 International Logistics
AMB230	now retitled AMB230 Digital Promotions
IBB312	is replaced by AMB300 Independent Project 1

### Management Extended Major (MNX)

IBB205	is now MGB225 Intercultural Communication and Negotiation Skills
MGB218	is now MGB324 Managing Business Growth
MGB315	is now MGB370 Personal & Professional Development
IBB210	is replaced by AMB210 Import and Exporting
IBB303	is now AMB303 International Logistics

### Marketing Extended Major (MKX)

AMB251	now retitled AMB251 Innovation and Brand Management
AMB260	is replaced by AMB263 Introduction to Public Relations
AMB351	is now AMB209 Tourism Marketing

AMB352	is replaced by AMB252 Business Decision Making
AMB354	is now AMB208 Events Marketing
IBB213	is now AMB336 International Marketing
IBB303	is now AMB303 International Logistics

### Public Relations Extended Major (PRX)

AMB370	is replaced by AMB374 Global Public Relations Cases
AMB371	is replaced by AMB375 Public Relations Management

### Business Law and Tax Specialisation (BLS)

AYB223	is replaced by AYB230 Corporations Law
AYB325	is now AYB219 Taxation Law
AYB305	is now AYB205 Company Law & Practice
AYB312	is now AYB232 Financial Institutions Law
BSB213	is now AYB115 Governance Issues in E-Business

### Electronic Business Specialisation (EUS)

BSB212	is replaced by AYB114 Business Technologies
BSB213	is replaced by AYB115 Governance Issues and Fraud
BSB314	is replaced by AYB341 Forensic and Business Intelligence
ITB233	is now INB312 Enterprise Systems Applications
ITB823	is now INB830 Web Sites for E-Commerce
ITB239	is now INB342 Enterprise Data Mining

### Financial Economics Specialisation (FES)

EFB102	is replaced by EFB223 Economics 2
EFB202	is replaced by EFB330 Intermediate Macroeconomics
EFB211	is replaced by EFB331 Intermediate Microeconomics
EFB329	is now 338 Contemporary Applications of Economics
EFB314	is replaced by EFB336 International Economics
EFB324	is replaced by EFB201 Financial Markets
EFB325	is replaced by EFB337 Game Theory and Applications

### Integrated Marketing Communication Specialisation (IMS)

AMB260	is replaced by AMB263 Introduction to Public Relations
AMB230	now retitled AMB230 Digital Promotions
AMB354	is now AMB208 Events Marketing

### International Logistics Specialisation (ILG)

IBB303	is now AMB303 International Logistics
BSB314	is replaced by AYB341 Forensic and Business Intelligence
IBB210	is replaced by AMB210 Importing and

Exporting

EFB213 is replaced by AMB252 Business Decision Making (offered Sem 2); OR MGB335 Project Management (offered Sem 1 & 2)

#### Sales Specialisation (SALES)

AMB230 now retitled AMB230 Digital Promotion

AMB250 is replaced by MGB225 Intercultural Communication and Negotiation Skills

#### International Exchange Specialisation (IEX)

IBB205 is now MGB225 Intercultural Communication and Negotiation Skills

#### **Potential Careers:**

Account Executive, Accountant, Actuary, Banker, Banking and Finance Professional, Business Analyst, Certified Practising Accountant, Computer Game Programmer, Corporate Secretary, Economist, Financial Advisor/Analyst, Financial Project Manager, Funds Manager, Government Officer, Investment Manager, Market Research Manager, Mathematician, Quantitative Analyst, Risk Manager, Statistician, Stockbroker.

## **Bachelor of Arts/Bachelor of Information Technology (IX49)**

**Year offered:** 2011

**Admissions:** No

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,299 per semester (indicative)

**QTAC code:** This course is no longer offered

**Past rank cut-off:** 73

**Past OP cut-off:** 13

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA), and for games technology and security majors, Maths B (4, SA), or for all other majors, Maths A, B or C (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Course coordinator:** Contact Eve Teague (Arts) - Richard Thomas (Science and Technology)

**Campus:** Gardens Point and Kelvin Grove

### **COURSE OVERVIEW**

#### **YEAR 1 SEMESTER 1**

INB103	Industry Insights
INB250	Foundations of Computer Science
BA	Major unit
HHB116	Applied Skills And Scholarship

#### **YEAR 1 SEMESTER 2**

INB210	Databases
INB251	Networks
BA	Major unit
BA	Discipline unit or Elective unit

#### **YEAR 2 SEMESTER 1**

INB104	Building IT Systems
	Choose one unit from: Intermediate Level Elective list. This choice will replace ITB008 from 2009 course summary.
BA	Major unit
BA	Discipline or Minor unit or Elective unit

#### **YEAR 2 SEMESTER 2**

INB270	Programming
INB271	The Web
BA	Major unit
BA	Major unit

#### **YEAR 3 SEMESTER 1**

	IT Major Unit
	IT Major Unit
BA	Major unit
BA	Discipline or Minor unit or Elective

#### **YEAR 3 SEMESTER 2**

INB301	The Business of IT
	IT Major Unit
BA	Major unit
BA	Discipline or Minor unit or Elective

#### **YEAR 4 SEMESTER 1**

INB302	IT Capstone Project
	IT Major Unit
BA	Elective unit
BA	Discipline or Minor unit or Elective

#### **YEAR 4 SEMESTER 2**

	IT Major Unit
	IT Major Unit
BA	Elective unit
BA	Discipline unit or Elective unit

### **Information Systems Major**

#### **Compulsory Units**

INB311	Enterprise Systems
INB340	Database Design
INB220	Business Analysis

#### **IS Elective Units**

INB312	Enterprise Systems Applications
INB342	Enterprise Data Mining and Data Analysis
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB320	Business Process Modelling
INB124	Information Systems Development
INB221	Technology Management

### **Network Systems Major**

#### **Compulsory Units**

INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB255	Security

#### **Electives**

INB312	Enterprise Systems Applications
INB365	Systems Programming
INB353	Wireless and Mobile Networks
INB355	Cryptology and Protocols

### **Software Architecture Major**

#### **Compulsory Units**

INB340	Database Design
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# FACULTY OF SCIENCE AND TECHNOLOGY

INB371	Data Structures and Algorithms
INB372	Agile Software Development

## Electives

	Choose 3 Electives
INB341	Software Development With Oracle
INB311	Enterprise Systems
INB312	Enterprise Systems Applications
INB272	Interaction Design
INB313	Electronic Commerce Site Development
INB322	Information Systems Consulting
INB320	Business Process Modelling
INB365	Systems Programming
INB370	Software Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques
MAB281	Mathematics for Computer Graphics
	MAB281 is only to be used as a prereq for INB381

## Society and Change Multidisciplinary Major

### Society and Change

Seven (7) units are required for a Society and Change Major. These can include units completed in the Society and Change Major up to 2009 as well as any completed from the following list:

CLB107	The Classical World
CLB110	Environment and Society
CLB111	Environmental Hazards
JSB171	Justice and Society
KMB003	Sex Drugs Rock 'N' Roll
MDB454	Science, Technology and Society
PUB209	Health, Culture and Society
PYB067	Human Sexuality
SCB110	Science Concepts and Global Systems
SWB102	The Human Condition
SWB104	Interpersonal Communication
SWB212	Community Work
SWB214	Team Practice and Group Processes
SWB222	Advanced Communication for Human Services and Social Work
SWB223	People, Society and Social Work
SWB302	Social Policy Processes

## Ethics and Human Rights Multidisciplinary Major

### Ethics and Human Rights

Seven (7) units are required for an Ethics and

Human Rights Major. These can include units completed in the Ethics and Human Rights Major up to 2009 as well as any completed from the following list.

JSB171	Justice and Society
JSB175	Social Ethics and the Justice System
LWS101	Ethics Law and Health Care
NSB113	Diversity and Health: Introduction to Indigenous and Multicultural Perspectives
PUB486	Ethics and the Law in Health Service Delivery
SWB105	Introduction to Human Rights and Ethics
SWB219	Ethical and Legal Dimensions of Human Services and Social Work

## Community Studies Multidisciplinary Major

### Community Studies

Seven (7) units are required for a Community Studies Major. These can include units completed in the Community Studies Major up to 2009 as well as any completed from the following list.

EDB040	Indigenous Knowledge: Research Ethics and Protocols
EDB041	Indigenous Australia: Country, Kin and Culture
SWB100	Introduction to Human Services and Social Work
SWB102	The Human Condition
SWB103	Contemporary Social and Community Issues
SWB104	Interpersonal Communication
SWB204	Child and Family Services: Introduction
SWB206	Disability Services: Introduction
SWB207	Services to Young People: Introduction
SWB212	Community Work
SWB214	Team Practice and Group Processes
SWB216	The Human Dimensions of Space
SWB219	Ethical and Legal Dimensions of Human Services and Social Work
SWB220	Practice Theories
SWB221	Social Work Processes and Methods
SWB222	Advanced Communication for Human Services and Social Work
SWB302	Social Policy Processes
SWB304	Child and Family Services: Advanced
SWB305	Community and Youth Corrections
SWB306	Disability Services: Advanced
SWB307	Services to Young People: Advanced
SWB308	Child Protection Intervention Skills

## Australian Studies Multidisciplinary Major

### Australian Studies

Seven (7) units are required for an Australian Studies Major. These can include units completed in the Australian Studies Major up to



2009 as well as any completed from the following list.

CLB101	Australian Society and Culture
CLB102	Australian Historical Studies
CLB105	Australia and the South Pacific
CLB113	Australian Geographical Studies
EDB038	Indigenous Australian Culture Studies
EDB039	Indigenous Politics and Political Culture
EDB041	Indigenous Australia: Country, Kin and Culture

### **International and Global Studies Multidisciplinary Major**

#### **International and Global Studies**

Seven (7) units are required for an International and Global Studies (IGS) Major. These can include units completed in the IGS Major up to 2009 as well as any completed from the following list.

BSB119	Global Business
CLB049	The Global Teacher
CLB104	Colonialism and Independence in Asia-Pacific
CLB105	Australia and the South Pacific
CLB106	Modern China
CLB108	Nations and Nationalism in Modern Europe
CLB109	World Regions
CLB112	South East Asia in Focus
MDB454	Science, Technology and Society
SCB110	Science Concepts and Global Systems

Students may select one Language unit to be counted as part of the IGS Major. Students may also undertake a Combined Major in Languages/International and Global Studies, comprising 3 IGS units plus 4 units in one chosen language. (Indonesian, Japanese, French, Mandarin, German).

### **Discipline Major - Geography and Environmental Studies**

#### **Geography and Environmental Studies**

Six (6) units are required for a Geography and Environmental Studies Discipline Major. These can include units completed in the Geography and Environmental Studies Discipline Major up to 2009 as well as any completed from the following list.

CLB109	World Regions
CLB110	Environment and Society
CLB111	Environmental Hazards
CLB112	South East Asia in Focus
CLB113	Australian Geographical Studies
CLB114	Geography in the Field
SCB110	Science Concepts and Global Systems
UDB164	Population and Urban Studies
UDB281	Geographic Information Systems
UDB282	Remote Sensing

### **Discipline Major - History**

#### **History**

Six (6) units are required for a History Discipline Major. These can include units completed in the History Discipline Major up to 2009 as well as any completed from the following list.

CLB101	Australian Society and Culture
CLB102	Australian Historical Studies
CLB103	Interpreting the Past
CLB104	Colonialism and Independence in Asia-Pacific
CLB105	Australia and the South Pacific
CLB106	Modern China
CLB107	The Classical World
CLB108	Nations and Nationalism in Modern Europe

### **Discipline Major - Languages**

#### **LANGUAGES**

Apart from Mandarin, all Languages are now offered via cross institutional study from the University of Queensland. For information on Language options contact QUT's Faculty of Business

#### **Mandarin**

The following units are taught at UQ. Six sequenced units are required for a Mandarin Discipline Major. These can include units completed in the Mandarin Discipline Major up to 2009 as well as those from the following list:

AMB030	Mandarin for Chinese
AMB031	Mandarin 1
AMB032	Mandarin 2
AMB033	Mandarin 3
AMB034	Mandarin 4
AMB035	Mandarin 5
AMB036	Mandarin 6
AMB037	Mandarin 7
AMB038	Mandarin 8

#### **Overseas Units - All Languages**

AMB041	International Intensive Program
AMB042	International Summer School or Equivalent
AMB043	In-Country Study - A
AMB044	In-Country Study - B

#### **French**

The following units are taught at UQ. Six sequenced units are required for a French Discipline Major. These can include units completed in the French Discipline Major up to 2009 as well as those from the following list:

FREN101 0	French 1/Introductory French A
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# FACULTY OF SCIENCE AND TECHNOLOGY

FREN1020	French 2/Introductory French B
FREN2010	French 3/Intermediate French A
	OR
FREN3112	French Language A
FREN2020	French 4/Intermediate French B *
	OR
FREN3113	French Language B *
FREN3114	French 5/French Language C
FREN3115	French 6/French Language D
FREN3116	French 7/Advanced French Language **
	OR
FREN3330	French for Business
	OR
FREN3360	Le cinema en Francais
FREN3120	French 8/Advanced Oral French
	OR
FREN3210	Litterature et modernite
	OR
FREN3310	Introduction to French > English Translation
	OR
FREN3350	Litterature Contemporaine
	* FREN2010 is third semester French for students who have done HHB061 and HHB062 (semester 1 and 2 beginner French). FREN3112 is first semester French for students who have successfully completed Year 12 in the last three years
	** Students who have already completed HHB066 French 6 at QUT should not enrol in FREN3116.

## German

The following units are taught at UQ. Six sequenced units are required for a German Discipline Major. These can include units completed in the German Discipline Major up to 2009 as well as those from the following list:

GRMN1010	German 1/Introductory German Language 1
GRMN1020	German 2/Introductory German Language 2
GRMN2010	German 3/Continuing German Language 1
GRMN2020	German 4/Continuing German Language 2

GRMN3010	German 5/Advanced German Language 1
GRMN3020	German 6/Advanced German Language 2
GRMN3110	German 7/Advanced German Language 3
GRMN3120	German 8/Advanced German Language 4

## Japanese

The following units are taught at UQ. Six sequenced units are required for a Japanese Discipline Major. These can include units completed in the Japanese Discipline Major up to 2009 as well as those from the following list:

JAPN1011	Japanese 1/Introductory Japanese 1
JAPN2011	Japanese 2/Introductory Japanese 2
JAPN2101	Japanese 3/Intermediate Japanese 1
JAPN3001	Japanese 4/Intermediate Japanese 2
JAPN3101	Japanese 5/Continuing Japanese 3
JAPN3102	Japanese 6/Continuing Japanese 4
JAPN3200	Japanese 7/Multimedia Japanese
	OR
JAPN3240	Modern Literary Texts
	OR
JAPN3210	Polite Japanese Written & Spoken Styles
JAPN3500	Japanese 8/Language and Society in Japan

## Indonesian

The following units are taught at UQ. Six sequenced units are required for a Indonesian Discipline Major. These can include units completed in the Indonesian Discipline Major up to 2009 as well as those from the following list:

INDN1000	Indonesian 1/Introductory Indonesian A
INDN1001	Indonesian 2/Introductory Indonesian B
INDN2000	Indonesian 3/Intermediate Indonesian A
INDN2001	Indonesian 4/Intermediate Indonesian B
INDN3000	Indonesian 5/Advanced Indonesian A
INDN3001	Indonesian 6/Advanced Indonesian B
INDN3003	Indonesian 7/Indonesian Through the Media
INDN3005	Indonesian 8/Indonesian Translation B

## Discipline Major - Social Science

### SOCIAL SCIENCE

Six (6) units are required for a Social Science Discipline Major which comprises Sociology units and Political Studies units. These can include units completed in the Social Science Discipline Major up to 2009 as well as any completed from the following list.

### Sociology

CLB403	Gender And Sexuality Issues For Teachers
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JSB272	Theories of Crime
JSB372	Youth Justice
JSB378	Drugs and Crime
JSB971	Gender Crime and the Criminal Justice System
KMB003	Sex Drugs Rock 'N' Roll
MDB454	Science, Technology and Society
PYB067	Human Sexuality
PUB209	Health, Culture and Society
SWB216	The Human Dimensions of Space

#### Political Studies

EDB039	Indigenous Politics and Political Culture
JSB271	Policy Governance and Justice
KCB302	Political Communication
SWB218	Social Change, Politics, Policy and Activism
SWB302	Social Policy Processes

#### **Potential Careers:**

Community Worker, Diplomat, Government Officer, Higher Education Worker, Information Officer, Policy Officer, Public Servant.

## Bachelor of Information Technology/Bachelor of Laws (IX53)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 066292D

**Course duration (full-time):** 5.5 Years

**Domestic fees (indicative):** 2011: CSP \$4,209 (indicative) per semester

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419622

**Past rank cut-off:** 92

**Past OP cut-off:** 5

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), 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:** 528

**Standard credit points per full-time semester:** 48

**Course coordinator:** Mr Mike Roggenkamp (Science and Technology), Dr Bill Dixon (Law)

**Campus:** Gardens Point

### Course Overview

Combining law and information technology puts you at the cutting edge of the growth area of legal issues arising from the advance of information technology.

This double degree gives you the ability to practise law in light of the complex information and technology environments generated by manufacturers, data processing consultancies and private and government organisations. Alternatively, you may choose to practise as a computing professional specialising in legal applications, information systems or security.

Technology is increasingly becoming a part of everyday business. For example, political campaigns now use a wide range of technologies, including social networking, to deliver their message. Staff from both the information technology and law areas have contributed to the rapid developments in this area. Studying information technology allows you to keep up with the new era of the connected generation within the legal environment. Because more legal issues are arising from the Internet every day, the legal industry requires more graduates with an information technology background to help tackle these issues.

### Career Outcomes

Graduates may develop careers in cyberlaw, intellectual property and privacy, dealing with the legal regulation of the Internet including downloading music, mobile phone camera use or copyright issues. You may become a legal practitioner, barrister, in-house counsel, government lawyer or policy adviser. There is also increased demand for roles in edemocracy both in egovernment service delivery and political campaigning.

### Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord. At the end of your Law degree you will have completed the necessary units for admission to legal practice in Australia. To become a practicing lawyer you will need to complete further practical legal training (e.g. Graduate Diploma in Legal Practice) and then apply for admission.

### Study Areas

IX53 will not have nominated majors and minors in the IT component and consequently there will not be a Study Area A shown on a graduate's parchment. Instead, IX53 will have specialisations. The specialisation areas that will be available for students will include:

- Business Process Management
- Data Warehousing
- Digital Societies
- Enterprise Systems
- Information Management
- Network Systems
- Software Engineering
- Web Technologies

### Pathways to Further Studies

In 2001, the Faculty introduced an accelerated Honours program to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of their a BIT degree (or double degree) which would be counted both for completion of the degree and towards the Honours program. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete a BIT degree (or double degree) with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

### 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.

### Law School Electives Information

Students who are enrolled in LW34 (straight law undergraduate entry) are required to undertake two contextual electives in the first year of their degree (one in

each semester). Contextual electives may also be undertaken by any student as an ordinary elective within their degree. The contextual electives are:

- LWB142 Law Society and Justice
- LWB144 Law and Global Perspectives
- LWB149 Indigenous Legal Issues
- LWB150 Lawyering and Dispute Resolution.

Students who are enrolled in any of the law double degrees commence their law electives in the second semester of their second year.

Students who are enrolled in LW35 (Graduate Entry) commence their law electives in first semester of their second year.

Law students other than Graduate Entry students can undertake 4 non-law units as electives within their law degree. Students may be particularly interested in elective options within the School of Justice which relate to human rights and criminal justice.

## Graduate Destination Streams

The Faculty of Law has identified graduate destination streams for students undertaking a law or law double degree. This means that, as students learn more throughout their degree, they can choose their elective units in the areas of law in which they become interested. Students are not restricted to choose electives from a single stream; the streams are only to provide guidance to students in making their elective choices.

- Legal Practice
- General Legal Practice (work as a lawyer across a wide range of different legal areas)
- Specialist Legal Practice (work as a lawyer specialising in a particular area of the law, such as property law, family law or corporate law)
- Advocacy and Dispute Resolution (acting for clients in court or resolving disputes through negotiation and mediation processes)
- Public Sector (work as a lawyer in a government department)
- Private Enterprise (for those students not wanting to practise as a lawyer, but perhaps work within business management, human resources, information technology etc)

As students progress towards the end of their degrees there are more opportunities to participate in subjects where they engage in 'real world learning', for example, working within law firms and government departments in placement electives.

## Further Information

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

### Science and Technology Coordinator

Richard Thomas

Phone: +61 07 3138 2782

Email: enquiry.scitech@qut.edu.au

### Law Coordinator

Dr Bill Dixon

Ph: +61 7 3138 2707

Fax: +61 7 3138 2222

Email: law\_enquiries@qut.edu.au

## IX53 - Bachelor of Information Technology/Bachelor of Laws Course structure 2011

### Year 1, Semester 1

INB101	Impact of IT
INB102	Emerging Technology
LWB145	Legal Foundations A
LWB147	Torts A

### Year 1, Semester 2

INB103	Industry Insights
INB104	Building IT Systems
LWB146	Legal Foundations B
LWB148	Torts B

### Year 2, Semester 1

	IT Breadth Option
	IT Breadth Option
LWB136	Contracts A
LWB238	Fundamentals of Criminal Law

### Year 2, Semester 2

	IT Breadth Option
	IT Breadth Option
LWB137	Contracts B
LWB239	Criminal Responsibility

### Year 3, Semester 1

INB201	Scalable Systems Development
	IT Specialist Option
LWB240	Principles of Equity
LWB243	Property Law A

### Year 3, Semester 2

INB300	Professional Practice in IT
	IT Specialist Option
LWB241	Trusts
LWB244	Property Law B

### Year 4, Semester 1

INB301	The Business of IT
	IT Specialist Option
LWB242	Constitutional Law
LWB432	Evidence

### Year 4, Semester 2

INB302	IT Capstone Project
	IT Specialist Option



LWB334 Corporate Law  
Law Elective

## Year 5, Semester 1

LWB335 Administrative Law

LWB431 Civil Procedure

Law Elective

Law Elective

## Year 5, Semester 2

LWB433 Professional Responsibility

Law Elective

Law Elective

Law Elective

## Year 6, Semester 1

Law Elective

Law Elective

Law Elective

Law Elective

## IT Breadth Option Unit List

### IT Breadth Option Units

You must complete four (4) units from the following list. You should not commence these units until you have completed INB101, INB102, INB103 and INB104.

INB120 Corporate Systems

INB210 Databases

INB220 Business Analysis

INB250 Foundations of Computer Science

INB251 Networks

INB255 Security

INB270 Programming

INB271 The Web

INB272 Interaction Design

## IT Specialisation Option Unit List

### IT Specialist Option Units

You must complete four (4) units from the following list. Please ensure you have completed a minimum of 36 credit points (3 units) of IT Breadth Option Units before commencing these units. The units are grouped in areas to assist you in focusing your studies.

#### 1. BUSINESS PROCESS MANAGEMENT:

INB320 Business Process Modelling

INB321 Business Process Management

INB322 Information Systems Consulting

INB123 Project Management Practice

#### 2. DATA WAREHOUSING:

INB340 Database Design

INB341 Software Development With Oracle

INB342 Enterprise Data Mining and Data Analysis

INB343 Advanced Data Mining and Data Warehousing

INB344 Search Engine Technology

#### 3. DIGITAL ENVIRONMENTS:

INB345 Mobile Devices

INB346 Enterprise 2.0

INB347 Web 2.0 Applications

INB335 Information Resources

#### 4. ENTERPRISE SYSTEMS:

INB123 Project Management Practice

INB221 Technology Management

INB311 Enterprise Systems

INB312 Enterprise Systems Applications

#### 5. NETWORK SYSTEMS:

INB350 Internet Protocols and Services

INB351 Unix Network Administration

INB352 Network Planning

INB353 Wireless and Mobile Networks

#### 6. SOFTWARE ENGINEERING:

INB370 Software Development

INB371 Data Structures and Algorithms

INB372 Agile Software Development

INB374 Enterprise Software Architecture

#### 7. WEB TECHNOLOGIES:

INB313 Electronic Commerce Site Development

INB373 Web Application Development

INB374 Enterprise Software Architecture

INB385 Multimedia Systems

INB386 Advanced Multimedia Systems

#### 8. UNGROUPED:

INB204 Special Topic 1

INB205 Special Topic 2

INB304 Special Topic 3

INB305 Special Topic 4

INB306 Project 1

INB307 Project 2

INB308 Project 3

INB355 Cryptology and Protocols

INB365 Systems Programming

INB381 Modelling and Animation Techniques

INB382 Real Time Rendering Techniques

INB860 Computational Intelligence for Control and Embedded Systems

## Law Elective Information

### Law Electives

Further information regarding Law Electives can be found at:  
<http://www.law.qut.edu.au/study/courses/ugrad/lselect.jsp>

IT Breadth Option

LWB137 Contracts B  
 LWB239 Criminal Responsibility

**Transitional notes for law units for students who have transferred from IF38 to IX53**

- \* LWB142 and LWB144 are now law contextual elective units.
- \* LWB145 Legal Foundations A was LWB141 Legal Institutions and Method.
- \* LWB146 Legal Foundations B was LWB143 Legal Research and Writing (prerequisite LWB141).
- \* LWB147 Torts A was LWB138 Fundamentals of Torts.
- \* LWB148 Torts B was LWB139 Select Issues in Torts (prerequisite LWB138).
- \* LWB242 Constitutional Law was LWB231 Introduction to Public Law and LWB235 Australian Federal Constitutional Law.
- \* LWB243 Property Law was LWB236 Real Property A (prerequisite LWB143 & LWB240).
- \* LWB244 Property Law B was LWB237 Real Property B (prerequisite LWB236).
- \* LWB333 Theories of Law is now an elective unit.
- \* LWB335 Administrative Law was LWB331 Administrative is now (prerequisite LWB231).
- \* LWB434 Advanced Research and Legal Reasoning is now LWB435 Legal Research in Practice (prerequisite LWB143/LWB145) and it is now an elective unit.

**IX53 - Bachelor of Information Technology/Bachelor of Laws Course structure 2010**

**Year 1, Semester 1**

INB101 Impact of IT  
 INB102 Emerging Technology  
 LWB145 Legal Foundations A  
 LWB147 Torts A

**Year 1, Semester 2**

INB103 Industry Insights  
 INB104 Building IT Systems  
 LWB146 Legal Foundations B  
 LWB148 Torts B

**Year 2, Semester 1**

IT Breadth Option  
 IT Breadth Option  
 LWB136 Contracts A  
 LWB238 Fundamentals of Criminal Law

**Year 2, Semester 2**

IT Breadth Option

**Year 3, Semester 1**

INB201 Scalable Systems Development  
 IT Specialist Option  
 LWB240 Principles of Equity  
 LWB243 Property Law A

**Year 3, Semester 2**

INB300 Professional Practice in IT  
 IT Specialist Option  
 LWB241 Trusts  
 LWB244 Property Law B

**Year 4, Semester 1**

INB301 The Business of IT  
 IT Specialist Option  
 LWB242 Constitutional Law  
 LWB432 Evidence

**Year 4, Semester 2**

INB302 Capstone Project  
 IT Specialist Option  
 LWB334 Corporate Law  
 Law Elective

**Year 5, Semester 1**

LWB335 Administrative Law  
 LWB431 Civil Procedure  
 Law Elective  
 Law Elective

**Year 5, Semester 2**

LWB433 Professional Responsibility  
 Law Elective  
 Law Elective  
 Law Elective

**Year 6, Semester 1**

Law Elective  
 Law Elective  
 Law Elective  
 Law Elective

**Bachelor of Laws Elective List - Odd Years Offerings**

**Important Information**

These offerings are current at time of publication but are subject to change.  
 The elective interest groups are provided to

assist you in choosing electives that align with your career interests. You are not limited to selection from any one group, you can select from a range of elective interest groups.

The offering of elective units is subject to sufficient student enrolment numbers and staff availability.

As a guide, when a unit is offered during the day in one semester, it will be offered during the evening the next time it is offered and vice versa (subject to staff and room availability and offering a spread of units across day and night in each semester).

Before enrolling in an elective unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual at [https://qutvirtual.qut.edu.au/portal/pls/portal/un\\_out\\_search\\_p.show](https://qutvirtual.qut.edu.au/portal/pls/portal/un_out_search_p.show).

All units on this list are offered in internal and external mode unless noted otherwise.

## Semester 1 units:

### Contextual +

LWB142 Law, Society and Justice

### Property and Environmental

LWB485 Environmental Law

### Commercial and Consumer

LWB307 Insolvency Law

LWB364 Introduction to Taxation Law

LWB366 Law of Commercial Entities

### Intellectual Property and Technology

LWB486 Intellectual Property Law

### Human Rights

LWB142 Law, Society and Justice

LWB313 Discrimination & Equal Opportunity Law

LWB309 Succession

### Legal Skills

LWB418 Competition Moots 1

LWB419 Competition Moots 2

Entry for LWB418 and LWB419 is subject to being selected into a team to compete in one of the external mooting competitions that the QUT Law School will enter. Enrolments will be called for at a later date via e-mail.

Internal mode only.

LWB498 Dispute Resolution and Non-adversarial Practice

### Research and Theory

LWB435 Legal Research in Practice

LWB497 Advanced Research Project

Application forms and guidelines can be found

at <http://www.law.qut.edu.au/study/forms.jsp> and must be lodged at the Level 4 Reception C Block QUT Gardens Point. Forms must be submitted no later than 2 weeks prior to the commencement of semester

Internal mode only.

## Work Integrated Learning

LWB420 Internship

Any student wishing to undertake this unit in Semester 1 must fill out the registration form available at <http://www.law.qut.edu.au/study/forms.jsp> and lodge it at the Level 4 Reception C Block QUT Gardens Point. This process is to register your interest only. It does not guarantee a place on the enrolment quota list. However, to be eligible for selection for this unit, you must register your interest on this list a selection process will then follow and you will be advised of the outcome by email. No other method of enrolment will be approved or accepted for this unit.

Applications for 2011 have closed

Internal mode only.

## Semester 2 units:

### Contextual +

LWB144 Laws and Global Perspectives

LWB150 Lawyering and Dispute Resolution

LWB149 Indigenous Legal Issues

### Property and Environmental

LWB312 Real Estate Transactions

LWB489 Native Title Law and Practice

### Commercial and Consumer

LWB410 Competition Law

\* see notes below

LWB367 Law of Corporate Governance

\* see notes below

### Intellectual Property and Technology

LWB482 Internet Law

LWB423 Intellectual Property and Technology Law Clinic

Internal mode only.

### Human Rights

LWB149 Indigenous Legal Issues

LWB302 Family Law

LWB308 Australian Employment Law

\* see notes below

LWB483 Medico-Legal Issues

LWB496 Australian and Comparative Human Rights Law

## International

- LWB144 Laws and Global Perspectives  
LWB406 Fundamentals of Public International Law  
LWB407 Private International Law

## Legal Skills

- LWB150 Lawyering and Dispute Resolution  
LWB356 Advocacy
- Any student wishing to undertake this unit must register their name with the Law School by emailing [law\\_enquiries@qut.edu.au](mailto:law_enquiries@qut.edu.au). The number of student enrolments in this unit may be capped. External students are not excluded from undertaking this unit, provided that they are able to meet all attendance requirements. Final year students and students who have not had the opportunity to undertake other skills or work integrated learning units will be given preference.

Block mode only.

- LWB361 Drafting
- Any student wishing to undertake this unit must register their name with the Law School by emailing [law\\_enquiries@qut.edu.au](mailto:law_enquiries@qut.edu.au). The number of student enrolments in this unit may be capped. External students are not excluded from undertaking this unit, provided that they are able to meet all attendance requirements. Final year students and students who have not had the opportunity to undertake other skills or work integrated learning units will be given preference.

- LWB413 Queensland Parliamentary Internship Program
- This unit is for final year students only. There is a limited number of internships available and therefore enrolment in this unit is subject to approval by the unit co-ordinator. Interested students should contact John Pyke ([j.pyke@qut.edu.au](mailto:j.pyke@qut.edu.au)). NOTE: Due to complications in the Parliamentary calendar there may be no internships available in 2011. Please contact John Pyke for further information.

Internal mode only.

- LWB418 Competition Moots 1

- LWB419 Competition Moots 2

Entry to LWB418 and LWB419 is subject to being selected into a team to compete in one of the external mooting competitions that the QUT Law School will enter.

Internal mode only.

## Research and Theory

- LWB497 Advanced Research Project
- Application forms and guidelines can be found at <http://www.law.qut.edu.au/study/forms.jsp> and must be lodged at the Level 4 Reception C Block QUT Gardens Point. Forms must be submitted no later than 2 weeks prior to the commencement of semester.

Internal mode only.

## Work Integrated Learning

- LWB421 Learning in Professional Practice
- (Prior to enrolment in LWB421 students must have organised a legal professional placement as set out in the unit outline).
- LWB422 Virtual Law Placement
- Any student wishing to undertake this unit must register their name with the Law School by emailing [law\\_enquiries@qut.edu.au](mailto:law_enquiries@qut.edu.au).
- LWB456 Legal Clinic (Organised Program)
- Any student wishing to undertake this unit must register their name with the Law School by emailing [law\\_enquiries@qut.edu.au](mailto:law_enquiries@qut.edu.au).
- Internal mode only.
- LWB423 Intellectual Property and Technology Law Clinic

## Notes:

+ The units LWB142 Law Society and Justice, LWB149 Indigenous Legal Issues, LWB144 Laws and Global Perspectives and LWB150 Dispute Resolution appear twice as they are contextual elective choices in first year, if you are completing a straight law degree (LW34). They are also elective choices within the various elective interest groups that can be undertaken in any year of your degree.

\*these starred units are alternating units and will generally only be offered in odd years. Alternating units which are generally offered in even years include: LWB333 Theories of Law; LWB459 Commercial & Consumer Law; LWB359 Advanced Taxation Law; LWB463 Immigration & Refugee Law; LWB480 Media Law and LWB494 Principles of Sentencing. The offering of these units will be subject to student demand and staff availability.

For further information on the Work Integrated Learning (Work Placement) units see: <http://www.law.qut.edu.au/about/wil/> and <http://www.law.qut.edu.au/about/wil/faq.jsp>

Restricted Entry Units have quota limits imposed. Although students are able to enrol in these units on-line no places are guaranteed until after the applications are closed.

External students are not excluded from undertaking these units, provided that they are able to meet all the attendance requirements.

## Bachelor of Laws Elective List - Even Years Offerings

### Important Information

These offerings are current at time of publication but are subject to change.

The elective interest groups are provided to assist you in choosing electives that align with your career interests. You are not limited to selection from any one group, you can select from a range of elective interest groups.

The offering of elective units is subject to sufficient student enrolment numbers and staff availability.

As a guide, when a unit is offered during the day in one semester, it will be offered during

the evening the next time it is offered and vice versa (subject to staff and room availability and offering a spread of units across day and night in each semester).

Before enrolling in an elective unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual at [https://qutvirtual.qut.edu.au/portal/pls/portal/unout\\_search\\_p.show](https://qutvirtual.qut.edu.au/portal/pls/portal/unout_search_p.show).

All units on this list are offered in internal and external mode unless noted otherwise.

#### Semester 1 units:

##### Contextual +

LWB142 Law, Society and Justice

LWB150 Lawyering and Dispute Resolution

##### Property and Environmental

LWB485 Environmental Law

##### Commercial and Consumer

LWB307 Insolvency Law

LWB364 Introduction to Taxation Law

LWB366 Law of Commercial Entities

LWB459 Commercial and Consumer Law

\* see notes below

##### Intellectual Property and Technology

LWB486 Intellectual Property Law

LWB499 Creative Commons Clinic  
(needs restricted entry info)  
Block mode only.

##### Human Rights

LWB142 Law, Society and Justice

LWB313 Discrimination & Equal Opportunity Law

LWB309 Succession

LWB460 Sports Law

##### Legal Skills

LWB418 Competition Moots 1

LWB419 Competition Moots 2

Entry for LWB418 and LWB419 is subject to being selected into a team to compete in one of the external mooting competitions that the QUT Law School will enter. Enrolments will be called for at a later date via e-mail.

Internal mode only. Closing date for applications: Enrolments will be called for at a later date via e-mail.

LWB498 Dispute Resolution and Non-adversarial Practice

##### Research and Theory

LWB435 Legal Research in Practice

LWB497 Advanced Research Project

Application forms and guidelines can be found at <http://www.law.qut.edu.au/study/forms.jsp> and must be lodged at the Level 4 Reception C Block QUT Gardens Point. Forms must be submitted no later than 2 weeks prior to the commencement of semester

Internal mode only. Closing Date for Applications: Forms must be submitted no later than 2 weeks prior to the commencement of semester

LWB333 Theories of Law

\* see notes below

##### Work Integrated Learning

LWB420 Internship

Any student wishing to undertake this unit in Semester 1 must fill out the registration form available at <http://www.law.qut.edu.au/study/forms.jsp> and lodge it at the Level 4 Reception C Block QUT Gardens Point. This process is to register your interest only. It does not guarantee a place on the enrolment quota list. However, to be eligible for selection for this unit, you must register your interest on this list a selection process will then follow and you will be advised of the outcome by email. No other method of enrolment will be approved or accepted for this unit.

Internal mode only. Closing date for applications: 5pm Thursday 18 October 2011

#### Semester 2 units:

##### Contextual +

LWB144 Laws and Global Perspectives

LWB149 Indigenous Legal Issues

##### Property and Environmental

LWB312 Real Estate Transactions

LWBXXX Climate Change Law

##### Commercial and Consumer

LWB359 Advanced Taxation Law

\* see notes below

LWB363 Insurance Law

LWBXXX Consumer Financial Services Law and Regulation

##### Intellectual Property and Technology

LWB482 Internet Law

LWB423 Intellectual Property and Technology Law Clinic

Internal mode only.

LWB480 Media Law

\* see notes below

##### Human Rights

LWB149 Indigenous Legal Issues



LWB302	Family Law		(Prior to enrolment in LWB421 students must have organised a legal professional placement as set out in the unit outline).
LWB494	Principles of Sentencing		
	* see notes below		
LWB463	Immigration and Refugee Law		
	* see notes below		
International			
LWB144	Laws and Global Perspectives		
LWB406	Fundamentals of Public International Law		
Legal Skills			
LWB356	Advocacy		
	Any student wishing to undertake this unit must register their name with the Law School by emailing law_enquiries@qut.edu.au. The number of student enrolments in this unit may be capped. External students are not excluded from undertaking this unit, provided that they are able to meet all attendance requirements. Final year students and students who have not had the opportunity to undertake other skills or work integrated learning units will be given preference.		
	Block mode only. Closing Date for Applications: 5pm Thursday 19 April 2011		
LWB413	Queensland Parliamentary Internship Program		
	This unit is for final year students only. There is a limited number of internships available and therefore enrolment in this unit is subject to approval by the unit co-ordinator. Interested students should contact John Pyke (j.pyke@qut.edu.au). NOTE: Due to complications in the Parliamentary calendar there may be no internships available in 2011. Please contact John Pyke for further information.		
	Internal mode only. Closing Date for Applications: End of May 2012		
LWB418	Competition Moots 1		
	Entry is subject to being selected into a team to compete in one of the external moot competition competitions that the QUT Law School will enter.		
	Internal mode only. Closing date for applications: Enrolments will be called for at a later date via e-mail.		
Research and Theory			
LWB497	Advanced Research Project		
	Application forms and guidelines can be found at <a href="http://www.law.qut.edu.au/study/forms.jsp">http://www.law.qut.edu.au/study/forms.jsp</a> and must be lodged at the Level 4 Reception C Block QUT Gardens Point. Forms must be submitted no later than 2 weeks prior to the commencement of semester.		
	Internal mode only. Closing Date for Applications: Forms must be submitted no later than 2 weeks prior to the commencement of semester.		
Work Integrated Learning			
LWB421	Learning in Professional Practice		
LWB422	Virtual Law Placement		
	Any student wishing to undertake this unit must register their name with the Law School by emailing law_enquiries@qut.edu.au.		
	Closing Date for Applications: 5pm Thursday 19 April 2011		
LWB456	Legal Clinic (Organised Program)		
	Any student wishing to undertake this unit must register their name with the Law School by emailing law_enquiries@qut.edu.au.		
	Internal mode only. Closing Date for Applications: 5pm Thursday 19 April 2011		
LWB423	Intellectual Property and Technology Law Clinic		
	Places in this unit are limited. Any student wishing to undertake this unit must register their name with the Law School by emailing law_enquiries@qut.edu.au. A particular selection process will then follow.		
	Internal mode only. Closing Date for Applications: 5pm Thursday 19 April 2011		
Notes:			
	+ The units LWB142 Law Society and Justice, LWB149 Indigenous Legal Issues, LWB144 Laws and Global Perspectives and LWB150 Dispute Resolution appear twice as they are contextual elective choices in first year, if you are completing a straight law degree (LW34). They are also elective choices within the various elective interest groups that can be undertaken in any year of your degree.		
	*these starred units are alternating units and will generally only be offered in even years. Alternating units which are generally offered in even years include: LWB489 Native Title and Cultural Heritage Law; LWB410 Comparative Law; LWB367 Law of Corporate Governance; LWB308 Australian Employment Law; LWB483 Medico-Legal Issues and LWB496 Human Rights Law. The offering of these units will be subject to student demand and staff availability.		
	For further information on the Work Integrated Learning (Work Placement) units see: <a href="http://www.law.qut.edu.au/about/wil/">http://www.law.qut.edu.au/about/wil/</a> and <a href="http://www.law.qut.edu.au/about/wil/faq.jsp">http://www.law.qut.edu.au/about/wil/faq.jsp</a>		
	Restricted Entry Units have quota limits imposed. Although students are able to enrol in these units on-line no places are guaranteed until after the applications are closed.		
	External students are not excluded from undertaking these units, provided that they are able to meet all the attendance requirements.		
Bachelor of Laws Summer Units			
Important Information			
	These offerings are current at time of publication but are subject to change.		
	The offering of elective units is subject to		

sufficient student enrolment numbers and staff availability.

## Undergraduate Core Units

LWB239	Criminal Responsibility
LWB241	Trusts
LWB244	Property Law B
LWB334	Corporate Law
LWB335	Administrative Law
LWB431	Civil Procedure
LWB432	Evidence
LWB433	Professional Responsibility

## Undergraduate Elective Units

LWB302	Family Law
LWB364	Introduction to Taxation Law
LWB421	Learning in Professional Practice
LWB486	Intellectual Property Law
LWB498	Dispute Resolution and Non-adversarial Practice

## Graduate destination streams

### Legal Practice

Electives that may be offered by the Law School that are particularly relevant to students considering a future career in legal practice include:

LWB302	Family Law
LWB307	Insolvency Law
LWB308	Australian Employment Law
LWB309	Succession
LWB312	Real Estate Transactions
LWB313	Discrimination & Equal Opportunity Law
LWB356	Advocacy
LWB359	Advanced Taxation Law
LWB361	Drafting
LWB363	Insurance Law
LWB364	Introduction to Taxation Law
LWB407	Private International Law
LWB410	Competition Law
LWB418	Competition Moots 1
LWB435	Legal Research in Practice
LWB454	Banking and Finance Law
LWB459	Commercial and Consumer Law
LWB460	Sports Law
LWB463	Immigration and Refugee Law
LWB480	Media Law
LWB482	Internet Law
LWB483	Medico-Legal Issues
LWB485	Environmental Law

LWB486	Intellectual Property Law
LWB489	Native Title Law and Practice
LWB494	Principles of Sentencing
LWB496	Australian and Comparative Human Rights Law
LWB498	Dispute Resolution and Non-adversarial Practice
LWB499	Creative Commons Clinic
LWBXXX	Consumer and Financial Services Law
LWBXXX	Climate Change Law

### Public Sector

Electives that may be offered by the Law School that are particularly relevant to students considering a future career in the public sector include:

LWB333	Theories of Law
LWB406	Fundamentals of Public International Law
LWB413	Queensland Parliamentary Internship Program
LWB420	Internship
LWB463	Immigration and Refugee Law
LWB485	Environmental Law
LWB486	Intellectual Property Law
LWB494	Principles of Sentencing
LWB496	Australian and Comparative Human Rights Law
LWB499	Creative Commons Clinic

### Private Enterprise

Electives that may be offered by the Law School that are particularly relevant to students considering a future career in the private sector include:

LWB308	Australian Employment Law
LWB366	Law of Commercial Entities
LWB367	Law of Corporate Governance
LWB410	Competition Law
LWB421	Learning in Professional Practice

### Placement Electives

Electives which involve students undertaking real world professional experience include:

LWB413	Queensland Parliamentary Internship Program
LWB420	Internship
LWB421	Learning in Professional Practice
LWB422	Virtual Law Placement
LWB423	Intellectual Property and Technology Law Clinic

### Potential Careers:

Barrister, Crown Law Officer, Database Manager, Electronic Commerce Developer, In-House Lawyer, Lawyer, Programmer, Public Servant, Software Engineer, Solicitor, Systems Analyst, Systems Manager, Systems Programmer,

Web Designer.

## Bachelor of Engineering (Electrical)/Bachelor of Information Technology (IX54)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 006384G

**Course duration (full-time):** 5 years

**Domestic fees (indicative):** 2011: CSP \$3,878 (indicative) per semester

**International Fees (indicative):** 2011: \$11,875 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419512

**Past rank cut-off:** 81

**Past OP cut-off:** 10

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA) and Maths B (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 480

**Course coordinator:** Dr R.Mahalinga-Iyer (Engineering), Mr Mike Roggenkamp (Science & Technology)

**Discipline coordinator:** Dr Jasmine Banks (Engineering), Mr Richard Thomas (Information Technology Major)

**Campus:** Gardens Point

### Overview

Electrical engineers design, install and maintain electrical, electronic, telecommunications and computing systems on behalf of government and private companies.

This double degree gives you the skills to become a computer and electronic engineer suited to the development and application of consumer electronics (like mobile devices, iPods, DVD players and CD players) and electronic and computer systems (like traffic lights, ATMs and mobile networks). The engineering component consists of studies in electronic systems engineering and integrates with the information technology component to give you a wide and advanced study of modern electronic and computing systems.

### Career Outcomes

As a graduate you may find employment in areas such as communications, railways, electricity supply, hospitals, transport and in organisations that use electronics, electronic systems, computers and microprocessors to monitor, control, communicate and optimise processes and production in areas such as mining and aerospace.

### Professional Recognition

This course meets the requirements for membership of Engineers Australia (EA). EA is a signatory to the Washington Accord, which permits graduates from accredited member courses to work in various countries across the world. This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

### Other Course Requirements

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator.

### Cooperative Education Program

IT's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

### Pathways to Further Studies

In 2001, the Faculty introduced an accelerated Honours program to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of their a BIT degree (or double degree) which would be counted both for completion of the degree and towards the Honours program. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete a BIT degree (or double degree) with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

### 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.

### Further Information

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

#### Engineering Coordinator

Phone +61 7 3138 1993

Fax +61 7 3138 1516

email: [bee.enquiries@qut.edu.au](mailto:bee.enquiries@qut.edu.au)

#### Science and Technology Coordinator

Phone +61 7 3138 2782

Fax +61 7 3138 2703  
email: enquiry.scitech@qut.edu.au

**Full-time Course structure – Students commencing in 2011**

**Year 1, Semester 1**

ENB100	Engineering and Sustainability OR
INB103	Industry Insights
INB104	Building IT Systems
INB101	Impact of IT
MAB125	Foundations of Engineering Mathematics OR
MAB126	Mathematics for Engineering 1

**Year 1, Semester 2**

ENB120	Electrical Energy and Measurements
ENB200	Introducing Engineering Systems
INB102	Emerging Technology
MAB126	Mathematics for Engineering 1 OR
MAB127	Mathematics for Engineering 2

**Year 2, Semester 1**

ENB240	Introduction To Electronics
ENB130	Mechanical and Thermal Energy
ENB250	Electrical Circuits
MAB127	Mathematics for Engineering 2 OR
MAB233	Engineering Mathematics 3

**Year 2, Semester 2**

ENB150	Introducing Engineering Design
ENB242	Introduction To Telecommunications
ENB243	Linear Circuits and Systems IT Breadth Option Unit

**Year 3, Semester 1**

ENB110	Engineering Statics and Materials
ENB340	Power Systems and Machines IT Breadth Option Unit IT Breadth Option Unit

**Year 3, Semester 2**

ENB244	Microprocessors and Digital Systems
ENB245	Introduction To Design and Professional Practice
ENB343	Fields, Transmission and Propagation IT Breadth Option Unit

**Year 4, Semester 1**

ENB301	Instrumentation and Control
INB301	The Business of IT
ENB342	Signals, Systems and Transforms
INB201	Scalable Systems Development

**Year 4, Semester 2**

ENB344	Industrial Electronics
ENB345	Advanced Design and Professional Practice
MAB233	Engineering Mathematics 3 OR Electrical Engineering Selective IT Specialist Option Unit

**Year 5, Semester 1**

ENB346	Digital Communications OR
ENB350	Real-time Computer-based Systems
BEB801	Project 1 OR
INB309-1	Major Project IT Specialist Option Unit IT Specialist Option Unit

**Year 5, Semester 2**

BEB701	Work Integrated Learning 1
BEB802	Project 2 OR
INB309-2	Major Project IT Specialist Option Unit Electrical Engineering Selective

**Electrical Engineering Selectives**

ENB339	Introduction to Robotics
ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB456	Energy
ENB457	Controls, Systems and Applications
ENB458	Modern Control Systems

**Full-time Course structure – Students commencing in 2010**

**Year 1, Semester 1**

ENB100	Engineering and Sustainability OR
INB103	Industry Insights
ENB120	Electrical Energy and Measurements
INB104	Building IT Systems
MAB125	Foundations of Engineering Mathematics



OR  
MAB126 Mathematics for Engineering 1

Electrical Engineering Selective  
IT Specialist Option Unit

**Year 1, Semester 2**

ENB200 Introducing Engineering Systems  
ENB130 Mechanical and Thermal Energy  
INB102 Emerging Technology  
MAB126 Mathematics for Engineering 1  
OR  
MAB127 Mathematics for Engineering 2

**Year 2, Semester 1**

ENB240 Introduction To Electronics  
ENB246 Engineering Problem Solving  
OR  
INB101 Impact of IT  
ENB250 Electrical Circuits  
MAB127 Mathematics for Engineering 2  
OR  
MAB233 Engineering Mathematics 3

**Year 2, Semester 2**

ENB150 Introducing Engineering Design  
ENB242 Introduction To Telecommunications  
ENB243 Linear Circuits and Systems  
IT Breadth Option Unit

**Year 3, Semester 1**

ENB110 Engineering Statics and Materials  
ENB241 Software Systems Design  
IT Breadth Option Unit  
IT Breadth Option Unit

**Year 3, Semester 2**

ENB244 Microprocessors and Digital Systems  
ENB245 Introduction To Design and Professional Practice  
ENB343 Fields, Transmission and Propagation  
IT Breadth Option Unit

**Year 4, Semester 1**

ENB301 Instrumentation and Control  
ENB340 Power Systems and Machines  
ENB342 Signals, Systems and Transforms  
INB201 Scalable Systems Development

**Year 4, Semester 2**

ENB344 Industrial Electronics  
ENB345 Advanced Design and Professional Practice  
MAB233 Engineering Mathematics 3  
OR

**Year 5, Semester 1**

ENB346 Digital Communications  
OR  
ENB350 Real-time Computer-based Systems  
BEB801 Project 1  
OR  
INB309-1 Major Project  
INB301 The Business of IT  
IT Specialist Option Unit

**Year 5, Semester 2**

BEB701 Work Integrated Learning 1  
BEB802 Project 2  
OR  
INB309-2 Major Project  
IT Specialist Option Unit  
IT Specialist Option Unit

**Electrical Engineering Selectives**

ENB339 Introduction to Robotics  
ENB448 Signal Processing and Filtering  
ENB452 Advanced Power Systems Analysis  
ENB453 Power Equipment and Utilisation  
ENB456 Energy  
ENB457 Controls, Systems and Applications  
ENB458 Modern Control Systems

**Full-time Course structure – Students commencing in 2009**

**Year 1, Semester 1**

BEB100 Introducing Professional Learning  
OR  
INB103 Industry Insights  
INB104 Building IT Systems  
MAB131 Engineering Mathematics 1A  
OR  
MAB180 Engineering Mathematics 1B  
PCB136 Engineering Physics 1C

**Year 1, Semester 2**

BEB200 Introducing Sustainability  
ENB103 Electrical Engineering  
INB102 Emerging Technology  
MAB132 Engineering Mathematics 2A  
OR  
MAB182 Engineering Mathematics 2B

## Year 2, Semester 1

ENB101	Engineering Mechanics 1
ENB104	Engineering Materials
ENB240	Introduction To Electronics
ENB242	Introduction To Telecommunications

## Year 2, Semester 2

ENB243	Linear Circuits and Systems
INB101	Impact of IT
INB270	Programming
	IT Breadth Option Unit

## Year 3, Semester 1

ENB340	Power Systems and Machines
ENB342	Signals, Systems and Transforms
MAB233	Engineering Mathematics 3
	IT Breadth Option Unit

## Year 3, Semester 2

ENB241	Software Systems Design
ENB244	Microprocessors and Digital Systems
ENB245	Introduction To Design and Professional Practice
	IT Breadth Option Unit

## Year 4, Semester 1

ENB301	Instrumentation and Control
ENB350	Real-time Computer-based Systems
INB201	Scalable Systems Development
	IT Specialist Option Unit

## Year 4, Semester 2

ENB343	Fields, Transmission and Propagation
ENB344	Industrial Electronics
ENB345	Advanced Design and Professional Practice
ENB346	Digital Communications

## Year 5, Semester 1

BEB701	Work Integrated Learning 1
BEB801	Project 1
	OR
INB309-1	Major Project
INB301	The Business of IT
	IT Specialist Option Unit

## Year 5, Semester 2

BEB802	Project 2
	OR
INB309-2	Major Project
	IT Specialist Option Unit
	IT Specialist Option Unit

## Electrical Engineering Selective

### Electrical Engineering Selectives

ENB231	Materials and Manufacturing 1
ENB334	Design For Manufacturing
ENB339	Introduction to Robotics
ENB350	Real-time Computer-based Systems
ENB352	Communication Environments For Embedded Systems
ENB436	Mechatronics System Design
ENB440	RF Techniques and Modern Applications
ENB441	Applied Image Processing
ENB445	RF Communication Technologies
ENB446	Wireless Communications
ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB454	Power System Management
ENB455	Power Electronics
ENB456	Energy
ENB457	Controls, Systems and Applications
ENB458	Modern Control Systems
INB353	Wireless and Mobile Networks
INB860	Computational Intelligence for Control and Embedded Systems

### IT Breadth Option Unit List

#### IT Breadth Option Units

You must complete four (4) units from the following list. You should not commence these units until you have completed INB101, INB102, INB103 and INB104.

INB120	Corporate Systems
INB210	Databases
INB220	Business Analysis
INB250	Foundations of Computer Science
INB251	Networks
INB255	Security
INB270	Programming
INB271	The Web
INB272	Interaction Design

### IT Specialisation Option Unit List

#### IT Specialist Option Units

You must complete four (4) units from the following list. Please ensure you have completed a minimum of 36 credit points (3 units) of IT Breadth Option Units before commencing these units. The units are grouped in areas to assist you in focusing your studies.

1. BUSINESS PROCESS MANAGEMENT:

## FACULTY OF SCIENCE AND TECHNOLOGY

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INB320	Business Process Modelling	INB382	Real Time Rendering Techniques
INB321	Business Process Management	INB860	Computational Intelligence for Control and Embedded Systems
INB322	Information Systems Consulting		
INB123	Project Management Practice		
2.	DATA WAREHOUSING:		<b>Potential Careers:</b>
INB340	Database Design		Computer Systems Engineer, Electrical and Computer Engineer, Electrical Engineer, Engineer.
INB341	Software Development With Oracle		
INB342	Enterprise Data Mining and Data Analysis		
INB343	Advanced Data Mining and Data Warehousing		
INB344	Search Engine Technology		
3.	DIGITAL ENVIRONMENTS:		
INB345	Mobile Devices		
INB346	Enterprise 2.0		
INB347	Web 2.0 Applications		
INB335	Information Resources		
4.	ENTERPRISE SYSTEMS:		
INB123	Project Management Practice		
INB221	Technology Management		
INB311	Enterprise Systems		
INB312	Enterprise Systems Applications		
5.	NETWORK SYSTEMS:		
INB350	Internet Protocols and Services		
INB351	Unix Network Administration		
INB352	Network Planning		
INB353	Wireless and Mobile Networks		
6.	SOFTWARE ENGINEERING:		
INB370	Software Development		
INB371	Data Structures and Algorithms		
INB372	Agile Software Development		
INB374	Enterprise Software Architecture		
7.	WEB TECHNOLOGIES:		
INB313	Electronic Commerce Site Development		
INB373	Web Application Development		
INB374	Enterprise Software Architecture		
INB385	Multimedia Systems		
INB386	Advanced Multimedia Systems		
8.	UNGROUPED:		
INB204	Special Topic 1		
INB205	Special Topic 2		
INB304	Special Topic 3		
INB305	Special Topic 4		
INB306	Project 1		
INB307	Project 2		
INB308	Project 3		
INB355	Cryptology and Protocols		
INB365	Systems Programming		
INB381	Modelling and Animation Techniques		

## Bachelor of Applied Science(Study Area A)/Bachelor of Information Technology (IX55)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 020327M

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,300 (indicative) per semester

**International Fees (indicative):** 2011: \$11,875 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 418322

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Course coordinator:** Dr Perry Hartfield (Science), Mr Mike Roggenkamp (Information Technology)

**Discipline coordinator:** Dr Perry Hartfield (Biochemistry Major); Dr Marion Bateson (Biotechnology Major); Dr John McMurtrie (Chemistry Major); Dr Ian Williamson (Ecology Major); Dr Robin Thwaites (Environmental Science Major); Dr Emad Kiriakous (Forensic Science Major); Dr Gary Huftile (Geoscience Major); Dr Christine Knox (Microbiology Major); Dr Greg Michael (Physics Major)

**Campus:** Gardens Point

### Course Overview

This double degree prepares you for an increasing range of careers that involve the application of information technology to science. It gives you the ability to use creative as well as analytical methods to solve scientific problems. Studying this double degree allows you to develop the technical skills required for your relevant field of study in applied science.

The science component of the course offers you the choice of majoring in biochemistry, biotechnology, chemistry, ecology, environmental science, forensic science, geosciences, microbiology or physics. Theoretical aspects are balanced by strong practical components in this science and information technology double degree.

### Career Outcomes

Graduates may find roles where they can use their information technology skills within the science discipline. Areas include sensor networks, complex system and scientific modelling, and science. As a graduate, you can expect to work in roles such as a scientific modeller, engineering software developer, scientific programmer, and computational scientist.

### Recommended Study

At least one of the sciences. For biochemistry, biotechnology, forensic science, and microbiology majors -

Biological Science and Chemistry; for physic major - Maths C.

### Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord. Please refer to the Science pages at Studyfinder for more information on the relevant professional body for your chosen science major.

### Study Areas

IX55 will not have nominated majors and minors and consequently there will not be a Study Area A shown on a graduate's parchment. Instead, IX55 will have specialisations. The specialisation areas that will be available for students will include:

- Business Process Management
- Data Warehousing
- Digital Societies
- Enterprise Systems
- Information Management
- Network Systems
- Software Engineering
- Web Technologies

### Cooperative Education

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

### Pathways to Further Studies

In 2001, an accelerated Honours program was introduced to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of their BIT degree (or double degree) which would be counted both for completion of the degree and towards the Honours program. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete a BIT degree (or double degree) with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

### Further Information

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

#### **Science Coordinator**

Dr Perry Hartfield  
Phone: +61 7 3138 2984  
Email: p.hartfield@qut.edu.au

#### **Information Technology Coordinator**

Mr Richard Thomas  
Phone +61 7 3138 2782  
Email: enquiry.scitech@qut.edu.au

### Discipline Coordinators

#### **Biochemistry**

Dr Perry Hartfield  
Phone: +61 7 3138 2984  
Email: p.hartfield@qut.edu.au

#### **Biotechnology**

Dr Marion Bateson  
Phone: +61 7 3138 1269  
Email: m.bateson@qut.edu.au

#### **Chemistry**

Dr John McMurtrie  
Phone: +61 7 3138 1220  
Email: j.mcmurtrie@qut.edu.au

#### **Ecology**

Dr Ian Williamson  
Phone: +61 7 3138 2779  
Email: i.williamson@qut.edu.au

#### **Environmental Science**

Dr Robin Thwaites  
Phone: +61 7 3138 2400  
Email: r.thwaites@qut.edu.au

#### **Forensic Science**

Dr Emad Kiriakous  
Phone: +61 7 3138 2501  
Email: e.kiriakous@qut.edu.au

#### **Geoscience**

Dr Gary Huftile  
Phone: +61 7 3138 4470  
Email: g.huftile@qut.edu.au

#### **Microbiology**

Dr Christine Knox  
Phone: +61 7 3138 2301  
Email: c.knox@qut.edu.au

#### **Physics**

Dr Greg Michael  
Phone: +61 7 3138 1584  
Email: g.michael@qut.edu.au

### 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.

### IX55 Bachelor of Applied Science/Bachelor of Information Technology Course structure

#### Year 1, Semester 1

INB101	Impact of IT
INB102	Emerging Technology
	Science Core Unit
	Science Core Unit

#### Year 1, Semester 2

INB103	Industry Insights
INB104	Building IT Systems
	Science Core Unit
	Science Core Unit

#### Year 2, Semester 1

	IT Breadth Unit Option
	IT Breadth Unit Option
	Science Core Unit
	Science Core Unit

#### Year 2, Semester 2

	IT Breadth Unit Option
	IT Breadth Unit Option
	Science Core Unit
	Science Core Unit

#### Year 3, Semester 1

INB201	Scalable Systems Development
	IT Specialisation Unit Option
	Science Major Unit
	Science Major Unit

#### Year 3, Semester 2

INB300	Professional Practice in IT
	IT Specialisation Unit Option
	Science Major Unit
	Science Major Unit

#### Year 4, Semester 1

INB301	The Business of IT
	IT Specialisation Unit Option
	Science Major Unit
	Science Major Unit

#### Year 4, Semester 2



INB302	IT Capstone Project
	IT Specialisation Unit Option
	Science Major Unit
	Science Major Unit

### IT Breadth Option Unit List

#### IT Breadth Option Units

You must complete four (4) units from the following list. You should not commence these units until you have completed INB101, INB102, INB103 and INB104.

INB120	Corporate Systems
INB210	Databases
INB220	Business Analysis
INB250	Foundations of Computer Science
INB251	Networks
INB255	Security
INB270	Programming
INB271	The Web
INB272	Interaction Design

### IT Specialisation Option Unit List

#### IT Specialist Option Units

You must complete four (4) units from the following list. Please ensure you have completed a minimum of 36 credit points (3 units) of IT Breadth Option Units before commencing these units. The units are grouped in areas to assist you in focusing your studies.

1.	BUSINESS PROCESS MANAGEMENT:
INB320	Business Process Modelling
INB321	Business Process Management
INB322	Information Systems Consulting
INB123	Project Management Practice
2.	DATA WAREHOUSING:
INB340	Database Design
INB341	Software Development With Oracle
INB342	Enterprise Data Mining and Data Analysis
INB343	Advanced Data Mining and Data Warehousing
INB344	Search Engine Technology
3.	DIGITAL ENVIRONMENTS:
INB345	Mobile Devices
INB346	Enterprise 2.0
INB347	Web 2.0 Applications
INB335	Information Resources
4.	ENTERPRISE SYSTEMS:
INB123	Project Management Practice
INB221	Technology Management
INB311	Enterprise Systems
INB312	Enterprise Systems Applications

5.	NETWORK SYSTEMS:
INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB353	Wireless and Mobile Networks
6.	SOFTWARE ENGINEERING:
INB370	Software Development
INB371	Data Structures and Algorithms
INB372	Agile Software Development
INB374	Enterprise Software Architecture
7.	WEB TECHNOLOGIES:
INB313	Electronic Commerce Site Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems
8.	UNGROUPE:
INB204	Special Topic 1
INB205	Special Topic 2
INB304	Special Topic 3
INB305	Special Topic 4
INB306	Project 1
INB307	Project 2
INB308	Project 3
INB355	Cryptology and Protocols
INB365	Systems Programming
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques
INB860	Computational Intelligence for Control and Embedded Systems

### Course structure - Major in Biochemistry

#### Year 1, Semester 1

SCB111	Chemistry 1
SCB112	Cellular Basis of Life

#### Year 1, Semester 2 (Life Sciences Pre-Major Strand)

SCB120	Plant and Animal Physiology
SCB121	Chemistry 2

#### Year 2, Semester 1

SCB110	Science Concepts and Global Systems
	Either
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

#### Year 2, Semester 2

SCB122	Cell and Molecular Biology
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SCB123 Physical Science Applications

**Year 3, Semester 1**

LQB381 Biochemistry: Structure and Function

LQB383 Molecular and Cellular Regulation

**Year 3, Semester 2**

LQB481 Biochemical Pathways and Metabolism

LQB483 Molecular Biology Techniques

**Year 4, Semester 1**

LQB581 Functional Biochemistry

LQB582 Biomedical Research Technologies

**Year 4, Semester 2**

LQB681 Biochemical Research Skills

LQB682 Protein Biochemistry and Bioengineering

**Course structure - Major in Biotechnology**

**Year 1, Semester 1**

SCB111 Chemistry 1

SCB112 Cellular Basis of Life

**Year 1, Semester 2 (Life Sciences Pre-Major Strand)**

SCB120 Plant and Animal Physiology

SCB121 Chemistry 2

**Year 2, Semester 1**

SCB110 Science Concepts and Global Systems  
Either

MAB101 Statistical Data Analysis 1  
Or

MAB105 Preparatory Mathematics

**Year 2, Semester 2**

SCB122 Cell and Molecular Biology

SCB123 Physical Science Applications

**Year 3, Semester 1**

LQB381 Biochemistry: Structure and Function

LQB383 Molecular and Cellular Regulation

**Year 3, Semester 2**

LQB483 Molecular Biology Techniques

LQB484 Introduction to Genomics and Bioinformatics

**Year 4, Semester 1**

Select TWO units from:

LQB583 Genetic Research Technology

LQB584 Medical Cell Biology

LQB585 Plant Genetic Manipulation

**Year 4, Semester 2**

Select TWO units from:

LQB682 Protein Biochemistry and Bioengineering

LQB684 Medical Biotechnology

LQB685 Plant Microbe Interactions

**Course structure - Major in Chemistry**

**Year 1, Semester 1**

SCB111 Chemistry 1

Either

MAB101 Statistical Data Analysis 1

Or

MAB105 Preparatory Mathematics

**Year 1, Semester 2 (Chemistry Pre-Major Strand)**

SCB112 Cellular Basis of Life

SCB121 Chemistry 2

**Year 2, Semester 1**

MAB120 Algebra and Calculus

SCB110 Science Concepts and Global Systems

**Year 2, Semester 2**

SCB123 Physical Science Applications

SCB131 Experimental Chemistry

**Year 3, Semester 1**

PQB312 Analytical Chemistry For Scientists and Technologists

PQB331 Structure and Bonding

**Year 3, Semester 2**

PQB401 Reaction Kinetics, Thermodynamics and Mechanisms

PQB442 Chemical Spectroscopy

**Year 4, Semester 1**

PQB502 Advanced Physical Chemistry

PQB531 Organic Mechanisms and Synthesis

**Year 4, Semester 2**

PQB631 Advanced Inorganic Chemistry

PQB642 Chemical Research

**Course structure - Major in Ecology**

**Year 1, Semester 1**

SCB111 Chemistry 1

SCB112 Cellular Basis of Life

**Year 1, Semester 2 (Ecology and Environmental Science Pre-Major Strand)**

SCB120 Plant and Animal Physiology

SCB122 Cell and Molecular Biology

## Year 2, Semester 1

SCB110	Science Concepts and Global Systems Either
MAB101	Statistical Data Analysis 1 Or
MAB105	Preparatory Mathematics

## Year 2, Semester 2

NQB201	Planet Earth
NQB202	History of Life on Earth

## Year 3, Semester 1

NQB302	Earth Surface Systems
NQB321	Ecology

## Year 3, Semester 2

NQB421	Experimental Design
NQB422	Genetics and Evolution

## Year 4, Semester 1

NQB521	Population Genetics and Molecular Ecology
NQB523	Population Management

## Year 4, Semester 2

NQB622	Conservation Biology
NQB623	Ecological Systems

### Course structure - Major in Environmental Science

## Year 1, Semester 1

SCB111	Chemistry 1
SCB112	Cellular Basis of Life

## Year 1, Semester 2 (Ecology and Environmental Science Pre-Major Strand)

SCB120	Plant and Animal Physiology
SCB121	Chemistry 2

## Year 2, Semester 1

SCB110	Science Concepts and Global Systems Either
MAB101	Statistical Data Analysis 1 Or
MAB105	Preparatory Mathematics

## Year 2, Semester 2

NQB202	History of Life on Earth
SCB123	Physical Science Applications

## Year 3, Semester 1

NQB302	Earth Surface Systems
NQB321	Ecology

## Year 3, Semester 2

NQB403	Soils and the Environment
NQB421	Experimental Design

## Year 4, Semester 1

NQB501	Environmental Modelling
NQB502	Field Methods in Natural Resource Sciences

## Year 4, Semester 2

NQB601	Sustainable Environmental Management
NQB602	Environmental Chemistry

### Course structure - Major in Forensic Science

## Year 1, Semester 1

SCB111	Chemistry 1
SCB112	Cellular Basis of Life

## Year 1, Semester 2 (Forensic Science Pre-Major Strand)

SCB121	Chemistry 2
SCB122	Cell and Molecular Biology

## Year 2, Semester 1

SCB110	Science Concepts and Global Systems Either
MAB101	Statistical Data Analysis 1 Or
MAB105	Preparatory Mathematics

## Year 2, Semester 2

SCB123	Physical Science Applications
SCB131	Experimental Chemistry

## Year 3, Semester 1

LQB383	Molecular and Cellular Regulation
SCB384	Forensic Sciences - From Crime Scene to Court

## Year 3, Semester 2

JSB979	Forensic Scientific Evidence
PQB312	Analytical Chemistry For Scientists and Technologists

## Year 4, Semester 1

PQB513	Instrumental Analysis
PQB584	Forensic Physical Evidence

## Year 4, Semester 2

LQB680	Forensic DNA Profiling
PQB684	Forensic Analysis

### Course structure - Major in Geoscience

## Year 1, Semester 1

# FACULTY OF SCIENCE AND TECHNOLOGY

SCB111 Chemistry 1  
SCB112 Cellular Basis of Life

## Year 1, Semester 2 (Geoscience Pre-Major Strand)

NQB201 Planet Earth  
SCB123 Physical Science Applications

## Year 2, Semester 1

SCB110 Science Concepts and Global Systems  
Either  
MAB101 Statistical Data Analysis 1  
Or  
MAB105 Preparatory Mathematics

## Year 2, Semester 2

NQB202 History of Life on Earth  
SCB222 Exploration of the Universe

## Year 3, Semester 1

NQB311 Mineralogy  
NQB314 Sedimentary Geology

## Year 3, Semester 2

NQB411 Petrology of Igneous and Metamorphic Rocks  
NQB412 Structural Geology and Field Methods

## Year 4, Semester 1

NQB502 Field Methods in Natural Resource Sciences  
NQB513 Geophysics

## Year 4, Semester 2

NQB613 Plate Tectonics  
NQB615 Geochemistry

## Course structure - Major in Microbiology

### Year 1, Semester 1

SCB111 Chemistry 1  
SCB112 Cellular Basis of Life

### Year 1, Semester 2 (Life Sciences Pre-Major Strand)

SCB120 Plant and Animal Physiology  
SCB121 Chemistry 2

### Year 2, Semester 1

SCB110 Science Concepts and Global Systems  
Either  
MAB101 Statistical Data Analysis 1  
Or  
MAB105 Preparatory Mathematics

### Year 2, Semester 2

SCB122 Cell and Molecular Biology

SCB123 Physical Science Applications

### Year 3, Semester 1

LQB381 Biochemistry: Structure and Function  
LQB386 Microbial Structure and Function

### Year 3, Semester 2

LQB483 Molecular Biology Techniques  
LQB486 Clinical Microbiology 1

### Year 4, Semester 1

LQB586 Clinical Microbiology 2  
LQB587 Applied Microbiology 1: Water, Air and Soil

### Year 4, Semester 2

LQB686 Microbial Technology and Immunology  
LQB687 Applied Microbiology 2: Food and Quality Assurance

## Course structure - Major in Physics

### Year 1, Semester 1

MAB121 Calculus and Differential Equations  
Or  
MAB120 Algebra and Calculus  
SCB111 Chemistry 1

Students who have completed only Maths B are required to take MAB120. Students who have completed both Maths B and Maths C should take MAB121.

### Year 1, Semester 2 (Physics Pre-Major Strand)

MAB122 Algebra and Analytic Geometry  
PQB250 Mechanics and Electromagnetism

### Year 2, Semester 1

SCB110 Science Concepts and Global Systems  
SCB112 Cellular Basis of Life

### Year 2, Semester 2

MAB220 Computational Mathematics 1  
Or  
MAB121 Calculus and Differential Equations  
PQB251 Waves and Optics

### Year 3, Semester 1

MAB311 Advanced Calculus  
PQB350 Thermodynamics of Solids and Gases

### Year 3, Semester 2

PQB450 Energy, Fields and Radiation  
PQB451 Electronics and Instrumentation

### Year 4, Semester 1

PQB550 Quantum and Condensed Matter Physics

PQB551 Physical Analytical Techniques

Year 4, Semester 2

PQB650 Advanced Theoretical Physics

PQB651 Experimental Physics

**Potential Careers:**

Analytical Chemist, Astrophysicist, Biochemist, Biologist, Biotechnologist, Chemist, Chemist Industrial, Coastal Scientist, Conservation Biologist, Data Communications Specialist, Environmental Scientist, Forensic Scientist, Geologist, Geophysicist, Geoscientist, Health Physicist, Hydrogeologist, Immunologist, Industrial Chemist, Laboratory Technician (Chemistry), Marine Scientist, Medical Physicist, Microbiologist, Molecular Biologist, Natural Resource Scientist, Network Administrator, Network Manager, Physicist, Plant Biotechnologist, Population Ecologist, Virologist.



## Bachelor of Creative Industries/Bachelor of Information Technology (IX56)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 059227E

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,300 (indicative) per semester

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 409872

**Past rank cut-off:** 86

**Past OP cut-off:** 8

**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:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Head, Undergraduate Studies (Creative Industries); Mr Mike Roggenkamp (Science and Technology)

**Campus:** Gardens Point and Kelvin Grove

### Course Overview

This double degree allows you to complement your technical skills with creative skills through digital media and film production. You will learn to merge the creative and imaginative with the technical to develop sophisticated and innovative digital products. You can choose to complement your skill set through a range of information technology and creative industries areas of interest to diversify your studies, including:

- animation
- art and design history
- creative and professional writing
- dance studies
- digital media
- entertainment industries
- entrepreneurship
- fashion
- film, television and screen game design
- interactive and visual design
- journalism, media and communication
- literary studies
- music
- online environments

### Career Outcomes

As a graduate you can enjoy the more creative side of information technology careers including digital media programmer, simulation designer or developer, games producer or designer, sound designer, mobile entertainment and communications developer, user interface developer, knowledge worker in music and sound, web developer and digital product strategist.

### Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

### Course Design

You will undertake the Bachelor of Creative Industries core units as well as one creative industries major. Your information technology degree component comprises eight core units, four breadth units, and four units in your information technology specialisation.

### Study Areas

The Bachelor of Information Technology will not have nominated majors and minors and consequently there will not be a Study Area A shown on a graduate's parchment. Instead, it will have specialisations. The specialisation areas that will be available for students will include:

- Business Process Management
- Data Warehousing
- Digital Societies
- Enterprise Systems
- Information Management
- Network Systems
- Software Engineering
- Web Technologies

### Pathways to Further Studies

In 2001, an accelerated Honours program was introduced to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of their a BIT degree (or double degree) which would be counted both for completion of the degree and towards the Honours program. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete a BIT degree (or double degree) with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

### International Students

English language requirements:

In addition to the above academic entry requirements, international students must meet the University's English language requirements of IELTS of 6.5 (with no lower than 6.0 for any one band).

### Cooperative Education

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

## Unit Incompatibility/Translation Information

Details on the translation and incompatibility of old and new units is located here:

Undergraduate Translation Table

If you have completed the unit(s) listed under the "Translation Unit Codes" column, you are not permitted to enrol in the listed new code.

## Further Information

For Further information about this course please contact the following:

### Science and Technology Coordinator

Richard Thomas

Phone: +61 7 3138 2782

Email: [enquiri.scitech@qut.edu.au](mailto:enquiri.scitech@qut.edu.au)

### Creative Industries Coordinator

Phone +61 7 3138 8114

Fax +61 7 3138 8116

Email: [creativeindustries@qut.edu.au](mailto:creativeindustries@qut.edu.au)

## Course structure for students who commenced in 2011

### Year 1, Semester 1

INB101	Impact of IT
INB102	Emerging Technology
KKB101	Creative Industries: People and Practices
SELECT	Either KPB101 or KVB104:
KPB101	Introduction to Film, TV and New Media Production
KVB104	Photomedia and Artistic Practice

### Year 1, Semester 2

INB103	Industry Insights
INB104	Building IT Systems
KCB103	Strategic Speech Communication
KKB102	Creative Industries: Making Connections

### Year 2, Semester 1

	IT Breadth Option Unit
	IT Breadth Option Unit
KKB221	Approaching Interdisciplinarity
SELECT	Creative Industries Major: First Unit

### Year 2, Semester 2

	IT Breadth Option Unit
	IT Breadth Option Unit
KKB222	Interdisciplinarity in Practice
SELECT	Creative Industries Major: Second Unit

### Year 3, Semester 1

INB201	Scalable Systems Development
	IT Specialisation Option Unit
SELECT	Creative Industries Major: Third Unit
SELECT	Creative Industries Major: Fourth Unit

### Year 3, Semester 2

INB300	Professional Practice in IT
	IT Specialisation Option Unit
SELECT	Creative Industries Major: Fifth Unit
SELECT	Creative Industries Major: Sixth Unit

### Year 4, Semester 1

INB301	The Business of IT
	IT Specialisation Option Unit
SELECT	Creative Industries Major: Seventh Unit
SELECT	Transitions to New Professional Environments Unit

### Year 4, Semester 2

INB302	IT Capstone Project
	IT Specialisation Option Unit
SELECT	Creative Industries Major: Eighth Unit
SELECT	Transitions to New Professional Environments Unit

## Course structure for students who commenced in 2010

### Year 1, Semester 1

INB101	Impact of IT
INB102	Emerging Technology
KKB101	Creative Industries: People and Practices
SELECT	Either KPB101 or KVB104:
KPB101	Introduction to Film, TV and New Media Production
KVB104	Photomedia and Artistic Practice

### Year 1, Semester 2

INB103	Industry Insights
INB104	Building IT Systems
KCB103	Strategic Speech Communication
KKB102	Creative Industries: Making Connections

### Year 2, Semester 1

	IT Breadth Option Unit
	IT Breadth Option Unit

KKB221 Approaching Interdisciplinarity  
 SELECT Creative Industries Major: First Unit

## Year 2, Semester 2

IT Breadth Option Unit  
 IT Breadth Option Unit

KKB222 Interdisciplinarity in Practice  
 SELECT Creative Industries Major: Second Unit

## Year 3, Semester 1

INB201 Scalable Systems Development  
 IT Specialisation Option Unit  
 SELECT Creative Industries Major: Third Unit  
 SELECT Creative Industries Major: Fourth Unit

## Year 3, Semester 2

INB300 Professional Practice in IT  
 IT Specialisation Option Unit  
 SELECT Creative Industries Major: Fifth Unit  
 SELECT Creative Industries Major: Sixth Unit

## Year 4, Semester 1

INB301 The Business of IT  
 IT Specialisation Option Unit  
 SELECT Creative Industries Major: Seventh Unit  
 SELECT Transitions to New Professional Environments Unit

## Year 4, Semester 2

INB302 IT Capstone Project  
 IT Specialisation Option Unit  
 SELECT Creative Industries Major: Eighth Unit  
 SELECT Transitions to New Professional Environments Unit

## Course structure for students who commenced in 2009

### Year 1, Semester 1

INB101 Impact of IT  
 INB102 Emerging Technology  
 KKB101 Creative Industries: People and Practices  
 SELECT Either KPB150 or KVB104:  
 KPB150 Foundations of Multi-platform Production  
 KVB104 Photomedia and Artistic Practice

### Year 1, Semester 2

INB103 Industry Insights  
 INB104 Building IT Systems  
 KCB103 Strategic Speech Communication  
 KKB102 Creative Industries: Making Connections

### Year 2, Semester 1

IT Breadth Option Unit  
 IT Breadth Option Unit

KKB221 Approaching Interdisciplinarity  
 SELECT Creative Industries Major: First Unit

## Year 2, Semester 2

IT Breadth Option Unit  
 IT Breadth Option Unit

KKB222 Interdisciplinarity in Practice  
 SELECT Creative Industries Major: Second Unit

## Year 3, Semester 1

INB201 Scalable Systems Development  
 IT Specialisation Option Unit  
 SELECT Creative Industries Major: Third Unit  
 SELECT Creative Industries Major: Fourth Unit

## Year 3, Semester 2

INB300 Professional Practice in IT  
 IT Specialisation Option Unit  
 SELECT Creative Industries Major: Fifth Unit  
 SELECT Creative Industries Major: Sixth Unit

## Year 4, Semester 1

INB301 The Business of IT  
 IT Specialisation Option Unit  
 SELECT Creative Industries Major: Seventh Unit  
 SELECT Transitions to New Professional Environments Unit

## Year 4, Semester 2

INB302 IT Capstone Project  
 IT Specialisation Option Unit  
 SELECT Creative Industries Major: Eighth Unit  
 SELECT Transitions to New Professional Environments Unit

## Creative Industries Major Options

### INSTRUCTIONS FOR MAJORS

Please refer to the following study sequences to plan your program. You must complete 96 credit points (normally eight 12 credit point subjects) from the specified units to achieve a major, following semester of offer and unit requisites (where applicable) to determine order of enrolment. Any unit(s) that appear in these majors and/or minors and are also mandatory elsewhere in your course can not contribute towards the completion of these majors and/or minors. Any unit(s) that appear in multiple majors and/or minors can only contribute towards the completion of one of these majors or minors.

### Animation

Description: This major provides you with

important skills in the skills, principles, concepts and history of animation. Beginning with drawing for animation and an exploration of the history of the animation industry and its practices, you will then apply this knowledge to current and emerging fields within the animation industry including motion graphics, 3D modelling and animation, real-time 3D and character animation. Through the creation of an interactive virtual environment you will be given the opportunity to refine your skills and expand your knowledge of the 3D animation industry.

**Assumed Knowledge:** There is no specific prior knowledge required as a prerequisite to undertaking this major.

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

#### Art and Design History

**Description:** This major equips you with the educational base necessary for a career in the arts professions, such as curatorial work, art criticism and arts administration. It offers a coherent and sequential set of units that provide a platform for a research-based study of the visual arts, design and architecture. In conjunction with further study, this major will assist in preparing you for work as a professional in these disciplines.

**Assumed Knowledge:** There is no specific prior knowledge required as a prerequisite to undertaking this major.

DAB325	Architecture in the 20th Century
DAB420	Architecture, Culture and Space
DEB202	Introducing Design History
KVB102	Modernism
KVB103	Australian Art
KVB108	Contemporary Asian Visual Culture
KVB211	Post 1945 Art
KVB212	Australian Art, Architecture and Design
KVB304	Contemporary Art Issues
KVB306	Video Art and Culture

#### Creative and Professional Writing

**Description:** The aim of this major is to prepare students to graduate with adequate skills and knowledge in the area of creative and professional writing; to provide a thorough grounding in a variety of genres that include fiction, creative non-fiction, media writing and

corporate writing and editing, thereby equipping graduates with the versatility required of professional writers; to enhance the critical, analytical and peer-reviewing skills of students; to provide an understanding of creative writing in its social and generic contexts.

**Assumed Knowledge:** There is no specific prior knowledge required as a prerequisite to undertaking this major.

**Instructions:** Of the eight units you need to complete, you must select at least three units coded 200 or above.

KWB101	Introduction to Creative Writing
KWB102	Media Writing
KWB103	Persuasive Writing
KWB104	Creative Writing: the Short Story
KWB106	Corporate Writing and Editing
KWB107	Creative Non-Fiction
KWB206	Youth and Children's Writing
KWB207	Great Books: Creative Writing Classics
KWB211	Stylistics and Poetics
KWB303	Writing and Publishing Industry
KWB313	Novel and Memoir

#### Dance Studies

**Description:** This major aims to provide a broad grounding in practical and theoretical aspects of dance. You will gain skills in contemporary dance, ballet, commercially driven genres, choreography and critical thinking and writing together with an understanding of the social and historical context of ballet, contemporary dance, and popular and world dance.

**Assumed Knowledge:** Previously acquired knowledge or skill IS required for you to undertake this major. It is essential that you be physically able, fit and have basic knowledge in a dance technique, either ballet, jazz or contemporary dance.

**Instructions:** Of the eight units you need to complete, you must select at least two units coded 200 or above.

KDB103	Dance Technique Studies 1
KDB104	Dance Technique Studies 2
KDB105	Architecture of the Body
KDB106	Dance Analysis
KDB107	Choreographic Studies 1
KDB108	World Dance
KDB109	Funk, Tap and all that Jazz
KDB110	Deconstructing Dance in History
KDB204	Australian Dance
KDB205	Dance in Education
KDB225	Music Theatre Skills

\*Please note that the Dance Studies major in the Bachelor of Creative Industries is NOT a pathway to secondary dance teaching



**Digital Media**

Description: Online and interactive technologies now dominate creative and professional life. This major provides you with the opportunity to develop websites, multimedia projects, wikis and blogs, as well as allowing you to understand the guiding principals behind these new modes of communication and creative practice.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.

KCB101 Introduction to Media and Communication: Texts

SELECT Either KCB102 or KJB101:

KCB102 Media Myth Busting 1

KJB101 Digital Journalism

SELECT Either KCB104 or KPB110:

KCB104 Media and Communications: Industries

KPB110 The Movie, TV & New Media Business

KCB206 New Media: Internet, Self and Beyond

KCB207 Exploring New Media Worlds

KCB203 Consumption Matters: Consumer Cultures and Identity

KIB101 Visual Communication

KIB103 Introduction to Web Design and Development

KVB306 Video Art and Culture

SELECT

BSB126

KPB101

AMB207

KXB101

KXB102

KXB201

KXB301

LWS008

LWS009

Description: On completion of this major, you will be able to demonstrate the knowledge and skills required to pursue a career in the Entertainment Industry. These include an understanding of the characteristics of mainstream commercial culture that appeal to large audiences; an understanding both of business and creative processes; an ability to balance the two of these; and an awareness of historical and current Entertainment content and business.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.

Either BSB126 or KPB101 (BSB126 is mandatory unless you are already undertaking it as part of another study package):

Marketing

Introduction to Film, TV and New Media Production

Entertainment Marketing

Introduction to Entertainment

Global Entertainment

Entertainment Practice: Balancing Creativity and Business

Entertainment Industries Map

Entertainment Law

Introduction to Law

Note: LWS009 will first be offered in semester 2 2011. KXB301 and LWS008 will first be offered in semester 1 2012. AMB200, KCB301 or KWB102 will be permitted to count towards this study package if completed in 2010 or earlier.

**Drama**

Description: The major offers a balance of performance theory and practice. It is designed as a learning sequence, beginning with introductory concepts and practices, through intermediate and on to advanced learning. Underpinning the major is a twin focus on contemporary performance-making and events management. Both of these areas are balanced by studies in theatre history and theory. Core topics include acting; directing; twentieth-century performance theory and practice; and events management.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.

KDB225 Music Theatre Skills

KTB101 20th Century Performance

KTB103 Performing Skills 1: Character and Scene

KTB104 Performance Innovation

KTB106 Performing Skills 2: Style and Form

KTB204 Understanding Performance

KTB207 Staging Australia

KTB210 Creative Industries Management

KTB211 Creative Industries Events and Festivals

KTB305 The Entrepreneurial Artist

KTB306 Directing for Performance Events and Festivals

**Fashion**

Description: This major has been designed to offer a mix of theoretical and practical units. The theory units will develop your knowledge and understanding of the history, industry and consumption of fashion and will introduce you to the critical legal issues surrounding the production and distribution of fashion. The practical units provide you with a variety of options to develop fashion related skills focusing on textile design, portfolio development and fashion journalism.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.

KCB203 Consumption Matters: Consumer Cultures and Identity

KFB103 Introduction to Fashion

KFB106 Unspeakable Beauty: A History of Fashion and Style

KFB107 Drawing for Fashion

KFB205 Fashion and Style Journalism

KFB206 Fashion and Modernity

KFB207 Contemporary Fashion

KFB208 Fashion Portfolio

KFB209 Ragtrade: Wholesaling Fashion

**Entertainment Industries**



KFB304 Fashion, Law and the Real World  
KVB213 Graphic Investigation

**Film, Television and Screen**

Description: The aim of this major is to provide students with a range of understandings in the theory and practice of film, television and screen. This study area aims to enhance creative, technical and organisational abilities as well as building story telling and communication skills.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.

KPB101 Introduction to Film, TV and New Media Production  
KPB104 Film and Television Production Resource Management  
KPB105 Narrative Production  
KPB109 Film and TV History  
KPB110 The Movie, TV & New Media Business  
KPB112 TV and Film Genres  
KPB113 TV and Film Text Analysis  
KPB202 Film and Television Business Skills: Entrepreneurship and Investment  
KPB205 Documentary Theory and Practice  
KPB206 International Cinema  
KPB212 Australian Film and TV  
KPB303 Critical Thinking About Television  
KPB313 How to be a Producer  
\* Please note: KPB203 is permitted to count towards this unit set.

**Interactive and Visual Design**

Description: This major will provide you with the design concepts and principles, practical skills and working methods needed by a contemporary designer of visual and interactive media. You will learn how to design effectively for print and electronic media, Web and mobile media and computer games and become equipped with a versatile set of design practices to support you to enter careers in marketing, web design, electronic publishing, interaction design and the creative aspects of game design.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.

KIB101 Visual Communication  
KIB102 Visual Interactions  
KIB103 Introduction to Web Design and Development  
KIB104 Digital Media  
KIB214 Design for Interactive Media  
KIB216 Advanced Web Design  
KIB230 Interface and Information Design  
KIB315 Contemporary Issues in Digital Media  
KVB105 Drawing for Design

KVB204 Graphic Design

**Journalism, Media and Communication**

Description: This major offers you a range of options to develop an understanding of the parameters of the journalism and professional communication fields. You can choose a mix of units to suit your career aspirations. If you choose to focus more on the Journalism (KJB) units, the major will introduce you to a range of journalism writing styles and offers an insight into some specialist areas of reporting. If you choose to focus more on the Media and Communication (KCB) units, it has been designed to enable you to develop the skills and knowledge to prepare media material for organisations that wish to build, and maintain, a media profile.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.

SELECT Either KCB102 or KJB101:  
KCB102 Media Myth Busting 1  
KJB101 Digital Journalism  
KJB120 Newswriting  
KCB104 Media and Communications: Industries  
KJB121 Journalistic Inquiry  
KCB103 Strategic Speech Communication  
KJB224 Feature Writing  
KJB239 Journalism Ethics and Issues  
SELECT Either KFB205 or KJB280:  
KFB205 Fashion and Style Journalism  
KJB280 International Journalism  
KCB301 Media Audiences  
KCB302 Political Communication  
SELECT Either KCB304 or KJB337:  
KCB304 Designing Communication Resources  
KJB337 Public Affairs Reporting

**Literary Studies**

Description: The aims of this major are to prepare students to graduate with adequate skills and knowledge in the area of literary and cultural studies; to provide a thorough grounding in a range of texts, both literary and popular, ranging from Shakespeare to nineteenth and twentieth century literature and culture; to provide graduates with enhanced skills in critical thinking, writing and analysis; to provide graduates with an understanding of the social and historical context of literary and popular written texts; to provide some understanding of the major approaches in literary theory.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.

KWB108 Introduction To Literary Studies  
KWB109 Writing Australia  
KWB206 Youth and Children's Writing

# FACULTY OF SCIENCE AND TECHNOLOGY

KWB207	Great Books: Creative Writing Classics				You must complete four (4) units from the following list. You should not commence these units until you have completed INB101, INB102, INB103 and INB104.
KWB208	Modern Times (Literature and Culture in the 20th Century)				
KWB209	Shakespeare, Then and Now		INB120	Corporate Systems	
KWB210	Imagining the Americas: Contemporary American Literature and Culture		INB210	Databases	
KWB308	Wonderlands: Literature and Culture in the 19th Century		INB220	Business Analysis	
KWB309	Popular Fictions, Popular Culture		INB250	Foundations of Computer Science	
	* KWB210 will be offered for the first time in semester 1 2012.		INB251	Networks	
			INB255	Security	
			INB270	Programming	
			INB271	The Web	
			INB272	Interaction Design	

## Music

Description: This major aims to impart a broad understanding of music practice in contemporary social, cultural and economic contexts. It aims to provide students with a combination of practical and theoretical skills to support a career in music within administrative, business, or organisational areas.

Assumed Knowledge: There is no specific prior knowledge required as a prerequisite to undertaking this major.

KDB225	Music Theatre Skills
KMB003	Sex Drugs Rock 'N' Roll
KMB004	World Music
KMB107	Sound, Image, Text
KMB119	Music and Sound Production 1
KMB122	Music and Sound Concepts 1
KMB129	Music and Sound Production 2
KMB132	Music and Sound Concepts 2
KMB200	Music Scenes and Subcultures
KMB301	The Music Industry

Please note: KKB345 is permitted to count towards this unit set if completed in 2010 or earlier.

## Creative Industries Transitions to New Professional Environments Unit Options

A maximum of 48 credit points may be taken from the following units:

KKB341	Creative Industries Internship 1
KKB342	Creative Industries Internship 2
KKB345	Creative Industries Project 1
KKB346	Creative Industries Project 2
KKB347	Becoming A Researcher: Understandings, Skills and Practices
KKB350	Creative Industries International Study Tour
	* Please note: KKB343 and KKB344 are permitted to count as Transitions to New Professional Environments Unit Options if completed in 2010 or earlier.

## IT Breadth Option Unit List

### IT Breadth Option Units

## IT Specialisation Option Unit List

### IT Specialist Option Units

You must complete four (4) units from the following list. Please ensure you have completed a minimum of 36 credit points (3 units) of IT Breadth Option Units before commencing these units. The units are grouped in areas to assist you in focusing your studies.

1.	BUSINESS PROCESS MANAGEMENT:
INB320	Business Process Modelling
INB321	Business Process Management
INB322	Information Systems Consulting
INB123	Project Management Practice
2.	DATA WAREHOUSING:
INB340	Database Design
INB341	Software Development With Oracle
INB342	Enterprise Data Mining and Data Analysis
INB343	Advanced Data Mining and Data Warehousing
INB344	Search Engine Technology
3.	DIGITAL ENVIRONMENTS:
INB345	Mobile Devices
INB346	Enterprise 2.0
INB347	Web 2.0 Applications
INB335	Information Resources
4.	ENTERPRISE SYSTEMS:
INB123	Project Management Practice
INB221	Technology Management
INB311	Enterprise Systems
INB312	Enterprise Systems Applications
5.	NETWORK SYSTEMS:
INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB353	Wireless and Mobile Networks
6.	SOFTWARE ENGINEERING:
INB370	Software Development

INB371	Data Structures and Algorithms
INB372	Agile Software Development
INB374	Enterprise Software Architecture
7.	WEB TECHNOLOGIES:
INB313	Electronic Commerce Site Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems
8.	UNGROUPEd:
INB204	Special Topic 1
INB205	Special Topic 2
INB304	Special Topic 3
INB305	Special Topic 4
INB306	Project 1
INB307	Project 2
INB308	Project 3
INB355	Cryptology and Protocols
INB365	Systems Programming
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques
INB860	Computational Intelligence for Control and Embedded Systems

**Potential Careers:**

Advertising Professional, Animator, Art Writer, Artist, Arts Administrator, Computer Game Programmer, Computer Games Developer, Creative Writer, Digital Composer, Fashion Professional, Film Composer, Film/Television Producer, Information Officer, Information Security Specialist, Internet Professional, Marketing Officer/Manager, Media Industry Specialist, Multimedia Designer, Music Agent/Manager, Music Publisher, Music Sampler, Music Technologist, Organisational Communication Specialist, Public Relations Officer/Consultant, Recording Engineer, Sound and Music Producer, Sound Designer, Technical Officer, Visual Artist, Web Designer.

## Bachelor of Information Technology/Bachelor of Mathematics (IX57)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 059226F

**Course duration (full-time):** 4 Years

**Domestic fees (indicative):** 2011: CSP \$3,028 (indicative) per semester

**International Fees (indicative):** 2011: \$11,375 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 418552

**Past rank cut-off:** 81

**Past OP cut-off:** 10

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Course coordinator:** Mr Mike Roggenkamp (Information Technology Major), Dr Tim Moroney (Mathematical Sciences Major)

**Campus:** Gardens Point

### Course Overview

Mathematics and information technology are interrelated disciplines. This double degree provides you with the knowledge and skills to develop solutions for complex problems that provide great benefits to society. In the first year you will build a foundation in mathematics and information technology and then select integrated strands combining units from the areas of applied mathematics, computational mathematics, operations research, statistics or financial mathematics with the combined information technology specialisation of your choice.

### Career Outcomes

Mathematics underpins much of information technology, especially in the more advanced areas of development and analysis. As a graduate you may find employment as a technical support specialist, data visualisation specialist, operations research specialist, computational scientist, statistician (there is high demand in the insurance industry), or work in complex system and scientific modelling.

### Professional Recognition

Graduates will be eligible for membership of the Mathematical Society of Australia, the Statistical Society of Australia and, depending on unit selection, the Australian Society for Operations Research. This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

### Financial Support

You should consider applying for an industry-sponsored mathematics bursary or an information technology

scholarship to help you financially throughout your studies. For further information visit Scholarships.

### Study Areas

IX57 will not have nominated majors and minors and consequently there will not be a Study Area A shown on a graduate's parchment. Instead, IX57 will have specialisations. The specialisation areas that will be available for students will include:

- Business Process Management
- Data Warehousing
- Digital Societies
- Enterprise Systems
- Information Management
- Network Systems
- Software Engineering
- Web Technologies

### Pathways to Further Studies

In 2001, an accelerated Honours program was introduced to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of their a BIT degree (or double degree) which would be counted both for completion of the degree and towards the Honours program. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete a BIT degree (or double degree) with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

### Cooperative Education

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

### Further Information

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

### Information Technology Coordinator

Mr Richard Thomas

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

**Mathematical Sciences Coordinator**

Dr Tim Moroney

Phone: +61 7 3138 2262

Email: t.moroney@qut.edu.au

**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.

**Course Structure for Students with Four Semesters of Senior Mathematics B and Senior Mathematics C**

**Year 1, Semester 1**

INB101	Impact of IT
INB102	Emerging Technology
MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry

**Year 1, Semester 2**

INB103	Industry Insights
INB104	Building IT Systems
MAB210	Statistical Modelling 1
MAB220	Computational Mathematics 1

**Year 2, Semester 1**

	IT Breadth Unit Option
	IT Breadth Unit Option
MAB101	Statistical Data Analysis 1
MAB312	Linear Algebra

**Year 2, Semester 2**

	IT Breadth Unit Option
	IT Breadth Unit Option
	Level 2 or 3 Maths Unit
	Level 2 or 3 Maths Unit

**Year 3, Semester 1**

INB201	Scalable Systems Development
	IT Specialisation Unit Option
MAB311	Advanced Calculus
	Level 2 or 3 Maths Unit

**Year 3, Semester 2**

INB300	Professional Practice in IT
	IT Specialisation Unit Option
	Level 2 or 3 Maths Unit
	Level 2 or 3 Maths Unit

**Year 4, Semester 1**

INB301	The Business of IT
	IT Specialisation Unit Option
	Level 2 or 3 Maths Unit
	Level 2 or 3 Maths Unit

**Year 4, Semester 2**

INB302	IT Capstone Project
	IT Specialisation Unit Option
	Level 2 or 3 Maths Unit
	Level 2 or 3 Maths Unit

**Course Structure for Students with Four Semesters of Senior Mathematics B Only**

**Year 1, Semester 1**

INB101	Impact of IT
INB102	Emerging Technology
MAB101	Statistical Data Analysis 1
MAB120	Algebra and Calculus

**Year 1, Semester 2**

INB103	Industry Insights
INB104	Building IT Systems
MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry

**Year 2, Semester 1**

	IT Breadth Unit Option
	IT Breadth Unit Option
MAB220	Computational Mathematics 1
MAB312	Linear Algebra

**Year 2, Semester 2**

	IT Breadth Unit Option
	IT Breadth Unit Option
MAB210	Statistical Modelling 1
	Level 2 or 3 Maths Unit

**Year 3, Semester 1**

INB201	Scalable Systems Development
	IT Specialist Unit Option
MAB311	Advanced Calculus
	Level 2 or 3 Maths Unit

**Year 3, Semester 2**

INB300	Professional Practice in IT
	IT Specialist Unit Option
	Level 2 or 3 Maths Unit
	Level 2 or 3 Maths Unit

**Year 4, Semester 1**

INB301	The Business of IT
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# FACULTY OF SCIENCE AND TECHNOLOGY

IT Specialist Unit Option  
Level 2 or 3 Maths Unit  
Level 2 or 3 Maths Unit

INB120 Corporate Systems  
INB210 Databases  
INB220 Business Analysis  
INB250 Foundations of Computer Science  
INB251 Networks  
INB255 Security  
INB270 Programming  
INB271 The Web  
INB272 Interaction Design

## Year 4, Semester 2

INB302 IT Capstone Project  
IT Specialist Unit Option  
Level 2 or 3 Maths Unit  
Level 2 or 3 Maths Unit

## Mathematics Units

### Level 2 Units

MAB311 Advanced Calculus  
MAB312 Linear Algebra  
MAB313 Mathematics of Finance  
MAB314 Statistical Modelling 2  
MAB315 Operations Research 2  
MAB413 Differential Equations  
MAB414 Applied Statistics 2  
MAB420 Computational Mathematics 2  
MAB422 Mathematical Modelling  
MAB461 Discrete Mathematics  
MAB480 Introduction to Scientific Computation  
Note: MAB311 Advanced Calculus and MAB312 Linear Algebra are mandatory units.

### Level 3 Units - at least 4 units must be selected

MAB521 Applied Mathematics 3  
MAB522 Computational Mathematics 3  
MAB524 Statistical Inference  
MAB525 Operations Research 3A  
MAB533 Statistical Techniques  
MAB536 Time Series Analysis  
MAB613 Partial Differential Equations  
MAB623 Financial Mathematics  
MAB624 Applied Statistics 3  
MAB625 Operations Research 3B  
MAB640 Industry Project  
MAB672 Advanced Mathematical Modelling  
Note: MAB523 Introduction to Quality Management and MAB621 Discrete Mathematics do not contribute to the mandatory 48 credit points minimum from Level 3 Mathematics units.

## IT Breadth Option Unit List

### IT Breadth Option Units

You must complete four (4) units from the following list. You should not commence these units until you have completed INB101, INB102, INB103 and INB104.

## IT Specialisation Option Unit List

### IT Specialist Option Units

You must complete four (4) units from the following list. Please ensure you have completed a minimum of 36 credit points (3 units) of IT Breadth Option Units before commencing these units. The units are grouped in areas to assist you in focusing your studies.

1. BUSINESS PROCESS MANAGEMENT:  
INB320 Business Process Modelling  
INB321 Business Process Management  
INB322 Information Systems Consulting  
INB123 Project Management Practice
2. DATA WAREHOUSING:  
INB340 Database Design  
INB341 Software Development With Oracle  
INB342 Enterprise Data Mining and Data Analysis  
INB343 Advanced Data Mining and Data Warehousing  
INB344 Search Engine Technology
3. DIGITAL ENVIRONMENTS:  
INB345 Mobile Devices  
INB346 Enterprise 2.0  
INB347 Web 2.0 Applications  
INB335 Information Resources
4. ENTERPRISE SYSTEMS:  
INB123 Project Management Practice  
INB221 Technology Management  
INB311 Enterprise Systems  
INB312 Enterprise Systems Applications
5. NETWORK SYSTEMS:  
INB350 Internet Protocols and Services  
INB351 Unix Network Administration  
INB352 Network Planning  
INB353 Wireless and Mobile Networks
6. SOFTWARE ENGINEERING:  
INB370 Software Development  
INB371 Data Structures and Algorithms  
INB372 Agile Software Development

INB374	Enterprise Software Architecture
7.	WEB TECHNOLOGIES:
INB313	Electronic Commerce Site Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems
8.	UNGROUPED:
INB204	Special Topic 1
INB205	Special Topic 2
INB304	Special Topic 3
INB305	Special Topic 4
INB306	Project 1
INB307	Project 2
INB308	Project 3
INB355	Cryptology and Protocols
INB365	Systems Programming
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques
INB860	Computational Intelligence for Control and Embedded Systems

**Potential Careers:**

Actuary, Computer Game Programmer, Data Communications Specialist, Database Manager, Market Research Manager, Mathematician, Network Administrator, Network Manager, Programmer, Quantitative Analyst, Software Engineer, Statistician, Systems Analyst.

## Bachelor of Business (Study Area A)/ Bachelor of Information Technology (IX58)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 059595C

**Course duration (full-time):** 4 Years

**Domestic fees (indicative):** 2011: CSP \$4,209 per semester (indicative)

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419202

**Past rank cut-off:** 81

**Past OP cut-off:** 10

**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:** 384

**Course coordinator:** Mr Mike Roggenkamp (Science and Technology), Director of Undergraduate Studies, QUT Business School; email: [bus@qut.edu.au](mailto:bus@qut.edu.au)

**Discipline coordinator:** Ms Sherrena Buckby (Accountancy); ASPRO Gayle Kerr (Advertising); Dr Tommy Tang (Economics); Dr John Chen (Finance); Mr Greg Southey (Human Resource Management); Mr Michael Cox (International Business); Dr Henri Burgers (Management); Mr Bill Proud (Marketing); and Ms Amisha Mehta (Public Relations)

**Campus:** Gardens Point

### Course Overview

This double degree will give you a broad base of commercial knowledge in business and information technology. Business is highly dependent on information technology infrastructure, so having the expertise in both makes you more attractive to employers looking for multidisciplinary staff.

Businesses look for staff who can communicate well from both the business and information technology disciplines, so having the skills and knowledge across both gives you a competitive edge over other graduates. You will have the opportunity to complement your information technology studies with a business major in accountancy, advertising, economics, finance, human resource management, international business, management, marketing or public relations.

### Career Outcomes

This double degree will give you the particular skills to acquire a role requiring knowledge in both business and information technology. These include business analyst, systems manager, product manager for an information technology product, team leader for multidisciplinary staff, pre-sales consulting, after-sales support, technical manager or consultant. Future career prospects include chief financial

officer, chief information officer and chief technical officer.

### Study Areas

IX58 will not have nominated majors and minors and consequently there will not be a Study Area A shown on a graduate's parchment. Instead, IX58 will have specialisations. The specialisation areas that will be available for students will include:

- Business Process Management
- Data Warehousing
- Digital Societies
- Enterprise Systems
- Information Management
- Network Systems
- Software Engineering
- Web Technologies

The following Majors are available from the Business component: Accounting, Advertising, Economics, Finance, Human Resource Management, International Business, Management, Marketing and Public Relations.

### International Students

English language requirements:

In addition to the above academic entry requirements, international students must meet the University's English language requirements of IELTS of 6.5 (with no lower than 6.0 for any one band).

### Pathways to Further Studies

In 2001, an accelerated Honours program was introduced to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of their a BIT degree (or double degree) which would be counted both for completion of the degree and towards the Honours program. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete a BIT degree (or double degree) with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

Business: For BS63 Bachelor of Business (Honours) please click BS63 for details.

### Cooperative Education

The Faculty of Science and Technology's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

## 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.

## IX58 - Bachelor of Business/Bachelor of Information Technology Course structure

### Year 1, Semester 1

INB101	Impact of IT
INB102	Emerging Technology
	Business Unit
	Business Unit

### Year 1, Semester 2

INB103	Industry Insights
INB104	Building IT Systems
	Business Unit
	Business Unit

### Year 2, Semester 1

	IT Breadth Option Unit
	IT Breadth Option Unit
	Business Unit
	Business Unit

### Year 2, Semester 2

	IT Breadth Option Unit
	IT Breadth Option Unit
	Business Unit
	Business Unit

### Year 3, Semester 1

INB201	Scalable Systems Development
	INB201 can only be taken after you have completed a minimum of 36 credit points of breadth units.
	IT Specialist Option Unit
	Business Unit
	Business Unit

### Year 3, Semester 2

INB300	Professional Practice in IT
	INB300 and INB301 can only be taken after you have completed a minimum of 192 credit points of study.

IT Specialist Option Unit

Business Unit

Business Unit

### Year 4, Semester 1

INB301	The Business of IT
	INB300 and INB301 can only be taken after a student has completed a minimum of 168 credit points of study.
	IT Specialist Option Unit
	Business Unit
	Business Unit

### Year 4, Semester 2

INB302	IT Capstone Project
	INB301 must be completed before enrolling in INB302.
	IT Specialist Option Unit
	Business Unit
	Business Unit

## IT Breadth Option Unit List

### IT Breadth Option Units

You must complete four (4) units from the following list. You should not commence these units until you have completed INB101, INB102, INB103 and INB104.

INB120	Corporate Systems
INB210	Databases
INB220	Business Analysis
INB250	Foundations of Computer Science
INB251	Networks
INB255	Security
INB270	Programming
INB271	The Web
INB272	Interaction Design

## IT Specialisation Option Unit List

### IT Specialist Option Units

You must complete four (4) units from the following list. Please ensure you have completed a minimum of 36 credit points (3 units) of IT Breadth Option Units before commencing these units. The units are grouped in areas to assist you in focusing your studies.

1.	BUSINESS PROCESS MANAGEMENT:
INB320	Business Process Modelling
INB321	Business Process Management
INB322	Information Systems Consulting
INB123	Project Management Practice
2.	DATA WAREHOUSING:
INB340	Database Design

## FACULTY OF SCIENCE AND TECHNOLOGY

INB341	Software Development With Oracle	BSB110	Accounting
INB342	Enterprise Data Mining and Data Analysis	BSB115	Management
INB343	Advanced Data Mining and Data Warehousing		Information Technology unit
INB344	Search Engine Technology		Information Technology unit
3.	DIGITAL ENVIRONMENTS:		
INB345	Mobile Devices	Year 1, Semester 2	
INB346	Enterprise 2.0	BSB123	Data Analysis
INB347	Web 2.0 Applications	BSB126	Marketing
INB335	Information Resources		Information Technology unit
4.	ENTERPRISE SYSTEMS:		Information Technology unit
INB123	Project Management Practice	Year 2, Semester 1	
INB221	Technology Management		Accountancy students MUST choose INB120 as one of their IT Breadth Options to meet professional recognition requirements
INB311	Enterprise Systems	BSB111	Business Law and Ethics
INB312	Enterprise Systems Applications	BSB113	Economics
5.	NETWORK SYSTEMS:		Information Technology unit
INB350	Internet Protocols and Services		Information Technology unit
INB351	Unix Network Administration		
INB352	Network Planning		
INB353	Wireless and Mobile Networks	Year 2, Semester 2	
6.	SOFTWARE ENGINEERING:	AYB200	Financial Accounting
INB370	Software Development	AYB225	Management Accounting
INB371	Data Structures and Algorithms		Information Technology unit
INB372	Agile Software Development		Information Technology unit
INB374	Enterprise Software Architecture	Year 3, Semester 1	
7.	WEB TECHNOLOGIES:	EFB210	Finance 1
INB313	Electronic Commerce Site Development	AYB219	Taxation Law
INB373	Web Application Development		Information Technology unit
INB374	Enterprise Software Architecture		Information Technology unit
INB385	Multimedia Systems	Year 3, Semester 2	
INB386	Advanced Multimedia Systems	AYB230	Corporations Law
8.	UNGROUPEd:	AYB340	Company Accounting
INB204	Special Topic 1		Information Technology unit
INB205	Special Topic 2		Information Technology unit
INB304	Special Topic 3		
INB305	Special Topic 4	Year 4, Semester 1	
INB306	Project 1	AYB311	Financial Accounting Issues
INB307	Project 2	AYB321	Strategic Management Accounting
INB308	Project 3		Information Technology unit
INB355	Cryptology and Protocols		Information Technology unit
INB365	Systems Programming	Year 4, Semester 2	
INB381	Modelling and Animation Techniques	AYB301	Audit and Assurance
INB382	Real Time Rendering Techniques	AYB339	Accountancy Capstone
INB860	Computational Intelligence for Control and Embedded Systems		Information Technology unit
			Information Technology unit

### IX58 - Business component (Accountancy) - course structure

Year 1, Semester 1

### IX58 - Business component (Advertising) - course structure



## Year 1, Semester 1

BSB126	Marketing
BSB113	Economics
	Information Technology unit
	Information Technology unit

## Year 1, Semester 2

BSB110	Accounting
BSB115	Management
	Information Technology unit
	Information Technology unit

## Year 2, Semester 1

BSB124	Working in Business
BSB119	Global Business
	Information Technology unit
	Information Technology unit

## Year 2, Semester 2

AMB200	Consumer Behaviour
AMB220	Advertising Theory and Practice
	Information Technology unit
	Information Technology unit

## Year 3, Semester 1

AMB201	Marketing and Audience Research
BSB111	Business Law and Ethics
	Information Technology unit
	Information Technology unit

## Year 3, Semester 2

AMB318	Advertising Copywriting
AMB319	Media Planning
	Information Technology unit
	Information Technology unit

## Year 4, Semester 1

AMB320	Advertising Management
AMB330	Advertising Planning Portfolio
	Information Technology unit
	Information Technology unit

## Year 4, Semester 2

AMB339	Advertising Campaigns
BSB123	Data Analysis
	Information Technology unit
	Information Technology unit

## IX58 - Business component (Economics) - course structure

## Year 1, Semester 1

BSB113	Economics
BSB115	Management
	Information Technology unit
	Information Technology unit

## Year 1, Semester 2

BSB124	Working in Business
BSB123	Data Analysis
	Information Technology unit
	Information Technology unit

## Year 2, Semester 1

BSB110	Accounting
BSB111	Business Law and Ethics
	Information Technology unit
	Information Technology unit

## Year 2, Semester 2

EFB222	Quantitative Methods For Economics and Finance
EFB223	Economics 2
	Information Technology unit
	Information Technology unit

## Year 3, Semester 1

EFB330	Intermediate Macroeconomics
EFB331	Intermediate Microeconomics
	Information Technology unit
	Information Technology unit

## Year 3, Semester 2

	Choice Units or remaining Business School Core Units
	Choice Units or remaining Business School Core Units
	Information Technology unit
	Information Technology unit

## Year 4, Semester 1

	Choice Units or remaining Business School Core Units
	Choice Units or remaining Business School Core Units
	Information Technology unit
	Information Technology unit

## Year 4, Semester 2

EFB338	Contemporary Application of Economic Theory
	Choice Units or remaining Business School Core Units
	Information Technology unit
	Information Technology unit

**Economics Choice Unit List**

Choose any three of the following:

EFB332	Applied Behavioural Economics
EFB333	Introductory Econometrics
EFB334	Environmental Economics and Policy
EFB336	International Economics
EFB337	Game Theory and Applications

**Important Note:**

Note: Both BSB119 and BSB126 units are the remaining Business School Core Units which are to be completed.

**IX58 - Business component (Finance) - course structure**

**Year 1, Semester 1**

BSB113	Economics
BSB115	Management Information Technology unit Information Technology unit

**Year 1, Semester 2**

BSB124	Working in Business
BSB126	Marketing Information Technology unit Information Technology unit

**Year 2, Semester 1**

BSB110	Accounting
BSB111	Business Law and Ethics Information Technology unit Information Technology unit

**Year 2, Semester 2**

BSB123	Data Analysis
BSB119	Global Business Information Technology unit Information Technology unit

**Year 3, Semester 1**

EFB222	Quantitative Methods For Economics and Finance
EFB210	Finance 1 Information Technology unit Information Technology unit

**Year 3, Semester 2**

EFB201	Financial Markets
EFB307	Finance 2 Information Technology unit Information Technology unit

**Year 4, Semester 1**

EFB223	Economics 2
EFB335	Investments Information Technology unit Information Technology unit

**Year 4, Semester 2**

EFB312	International Finance
EFB340	Finance Capstone Information Technology unit Information Technology unit

**IX58 - Business component (Human Resource Management) - course structure**

**Year 1, Semester 1**

BSB113	Economics
BSB115	Management Information Technology unit Information Technology unit

**Year 1, Semester 2**

BSB124	Working in Business
BSB126	Marketing Information Technology unit Information Technology unit

**Year 2, Semester 1**

BSB110	Accounting
BSB111	Business Law and Ethics Information Technology unit Information Technology unit

**Year 2, Semester 2**

BSB123	Data Analysis
BSB119	Global Business Information Technology unit Information Technology unit

**Year 3, Semester 1**

MGB207	Human Resource Issues and Strategy
MGB220	Business Research Methods Information Technology unit Information Technology unit

**Year 3, Semester 2**

MGB200	Leading Organisations
MGB201	Contemporary Employment Relations Information Technology unit Information Technology unit

**Year 4, Semester 1**

MGB331 Learning and Development in Organisations  
MGB339 Performance and Reward  
Information Technology unit  
Information Technology unit

**Year 4, Semester 2**

MGB320 Recruitment and Selection  
MGB370 Personal and Professional Development  
Information Technology unit  
Information Technology unit

**IX58 - Business component (International Business) - course structure**

**Year 1, Semester 1**

BSB126 Marketing  
BSB119 Global Business  
Information Technology unit  
Information Technology unit

**Year 1, Semester 2**

BSB110 Accounting  
BSB115 Management  
Information Technology unit  
Information Technology unit

**Year 2, Semester 1**

BSB124 Working in Business  
BSB123 Data Analysis  
Information Technology unit  
Information Technology unit

**Year 2, Semester 2**

BSB111 Business Law and Ethics  
BSB113 Economics  
Information Technology unit  
Information Technology unit

**Year 3, Semester 1**

MGB225 Intercultural Communication and Negotiation Skills  
AYB227 International Accounting  
Information Technology unit  
Information Technology unit

**Year 3, Semester 2**

AMB210 Importing and Exporting  
EFB240 Finance for International Business  
Information Technology unit  
Information Technology unit

**Year 4, Semester 1**

AMB303 International Logistics  
AMB336 International Marketing  
Information Technology unit  
Information Technology unit

**Year 4, Semester 2**

MGB340 International Business in the Asia-Pacific  
AMB369 International Business Strategy  
Information Technology unit  
Information Technology unit

**IX58 - Business component (Management) - course structure**

**Year 1, Semester 1**

BSB113 Economics  
BSB115 Management  
Information Technology unit  
Information Technology unit

**Year 1, Semester 2**

BSB124 Working in Business  
BSB126 Marketing  
Information Technology unit  
Information Technology unit

**Year 2, Semester 1**

BSB110 Accounting  
BSB111 Business Law and Ethics  
Information Technology unit  
Information Technology unit

**Year 2, Semester 2**

BSB119 Global Business  
BSB123 Data Analysis  
Information Technology unit  
Information Technology unit

**Year 3, Semester 1**

MGB210 Managing Operations  
MGB223 Entrepreneurship and Innovation  
Information Technology unit  
Information Technology unit

**Year 3, Semester 2**

MGB200 Leading Organisations  
MGB225 Intercultural Communication and Negotiation Skills  
Information Technology unit  
Information Technology unit

**Year 4, Semester 1**

MGB309 Strategic Management  
MGB324 Managing Business Growth  
Information Technology unit  
Information Technology unit

**Year 4, Semester 2**

MGB310 Sustainability in A Changing Environment  
MGB335 Project Management  
Information Technology unit  
Information Technology unit

**IX58 - Business component (Marketing) - course structure**

**Year 1, Semester 1**

BSB126 Marketing  
BSB113 Economics  
Information Technology unit  
Information Technology unit

**Year 1, Semester 2**

BSB111 Business Law and Ethics  
BSB115 Management  
Information Technology unit  
Information Technology unit

**Year 2, Semester 1**

BSB119 Global Business  
BSB124 Working in Business  
Information Technology unit  
Information Technology unit

**Year 2, Semester 2**

BSB110 Accounting  
BSB123 Data Analysis  
Information Technology unit  
Information Technology unit

**Year 3, Semester 1**

AMB200 Consumer Behaviour  
AMB201 Marketing and Audience Research  
Information Technology unit  
Information Technology unit

**Year 3, Semester 2**

AMB202 Integrated Marketing Communication  
AMB240 Marketing Planning and Management  
Information Technology unit  
Information Technology unit

**Year 4, Semester 1**

AMB335 E-marketing Strategies

AMB340 Services Marketing  
Information Technology unit  
Information Technology unit

**Year 4, Semester 2**

AMB336 International Marketing  
AMB359 Strategic Marketing  
Information Technology unit  
Information Technology unit

**IX58 - Business component (Public Relations) - course structure**

**Year 1, Semester 1**

BSB119 Global Business  
BSB126 Marketing  
Information Technology unit  
Information Technology unit

**Year 1, Semester 2**

BSB110 Accounting  
BSB115 Management  
Information Technology unit  
Information Technology unit

**Year 2, Semester 1**

BSB124 Working in Business  
BSB113 Economics  
Information Technology unit  
Information Technology unit

**Year 2, Semester 2**

AMB263 Introduction To Public Relations  
AMB264 Public Relations Techniques  
Information Technology unit  
Information Technology unit

**Year 3, Semester 1**

AMB201 Marketing and Audience Research  
BSB111 Business Law and Ethics  
Information Technology unit  
Information Technology unit

**Year 3, Semester 2**

AMB372 Public Relations Planning  
AMB373 Corporate Communication  
Information Technology unit  
Information Technology unit

**Year 4, Semester 1**

AMB374 Global Public Relations Cases  
AMB375 Public Relations Management

Information Technology unit

Information Technology unit

**Year 4, Semester 2**

AMB379 Public Relations Campaigns

BSB123 Data Analysis

Information Technology unit

Information Technology unit

**Potential Careers:**

Academic, Account Executive, Accountant, Administrator, Advertising Professional, Banker, Banking and Finance Professional, Economist, Financial Project Manager, Financial Risk Manager, Human Resource Developer, Human Resource Manager, International Business Specialist, Manager, Market Research Manager, Marketing Officer/Manager, Public Relations Officer/Consultant.



## Bachelor of Corporate Systems Management/Bachelor of Justice (IX61)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 063030F

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,300 (indicative) per semester

**International Fees (indicative):** 2011: \$10,750 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419652

**Past rank cut-off:** 81

**Past OP cut-off:** 10

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA); Maths A, B or C (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Course coordinator:** Dr Taizan Chan (Science and Technology), Prof Kerry Carrington (Law)

**Discipline coordinator:** Professor Kerry Carrington (Justice); Dr Taizan Chan (Science and Technology)

**Campus:** Gardens Point

### Course Overview

There is an ever-increasing number of criminal acts resulting from the development and use of technology (such as the Internet and mobile devices), therefore, students with a corporate systems management background have the appropriate skills and knowledge required to work on criminology and policing for these areas. Corporate systems management students also gain information systems knowledge which allows them to more effectively manage, secure and control systems and processing in justice departments.

Corporate systems management teaches students how to analyse business needs and devise IT-enabled business systems that deliver the necessary information to the key people via the most appropriate technologies. The justice component comprises a primary major study area in either criminology or policing, which covers skills in criminology, policing, ethics, crime prevention, justice policy and investigations.

### Career Outcomes

Graduates find work in justice areas including corrective services, police, Crime and Misconduct Commission, Department of Justice and Attorney-General, Federal and Family Courts and the Australian Taxation Office.

### Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

### Cooperative Education Program

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

### Futher Information

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

#### Science and Technology Coordinator

Dr Taizan Chan

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

#### Law Coordinator

Professor Kerry Carrington

Phone: +61 7 3138 7112

Email: [lawjs\\_enquiry@qut.edu.au](mailto:lawjs_enquiry@qut.edu.au)

### 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.

### Recommended course progression (from 2011 onwards)

#### Year 1, Semester 1

INB120	Corporate Systems
INB103	Industry Insights
JSB170	Introduction to Criminology and Policing
JSB171	Justice and Society

#### Year 1, Semester 2

INB123	Project Management Practice
BSB115	Management
JSB173	Understanding the Criminal Justice System
JSB174	Forensic Psychology and the Law

#### Year 2, Semester 1

INB101	Impact of IT
INB122	Organisational Databases
JSB172	Professional Criminological Research Skills
JSB175	Social Ethics and the Justice System

#### Year 2, Semester 2

INB124	Information Systems Development
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## FACULTY OF SCIENCE AND TECHNOLOGY

INB313	Electronic Commerce Site Development
JSB271	Policy Governance and Justice
	Justice Study Area A Unit from list below (Criminology or Policing)

### Year 3, Semester 1

INB220	Business Analysis
INB221	Technology Management
JSB371	Indigenous Justice
	Justice Study Area A Unit from list below (Criminology or Policing)

### Year 3, Semester 2

MGB223	Entrepreneurship and Innovation
INB320	Business Process Modelling
	Justice Study Area A Unit from list below (Criminology or Policing)
	Justice Study Area A Unit from list below (Criminology or Policing)

### Year 4, Semester 1

INB312	Enterprise Systems Applications
INB322	Information Systems Consulting
	Justice Study Area A Unit from list below (Criminology or Policing)
	Justice Study Area A Unit from list below (Criminology or Policing)

### Year 4, Semester 2

BSB126	Marketing
INB325	Corporate Systems Management Project
	Justice Study Area A Unit from list below (Criminology or Policing)
	Justice Study Area A Unit from list below (Criminology or Policing)

### Criminology Units:

Choose eight from the following:

JSB177	Crimes of Violence
JSB255	Environmental Criminology
JSB256	Indigenous Justice in a Global Context
JSB258	Official Corruption
JSB272	Theories of Crime
JSB273	Crime Research Methods
JSB372	Youth Justice
JSB373	Punishment and Penal Policy
JSB374	Crime Prevention
JSB971	Gender Crime and the Criminal Justice System
JSB982	Transnational Crime

### Policing Units:

Choose eight from the following:

JSB257	Policing Diversity
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JSB273	Crime Research Methods
JSB274	Policing in Context
JSB375	Investigative Knowledge: People and Systems in Policing
JSB376	Information Management and Analysis
JSB377	Intelligence and Security
JSB378	Drugs and Crime
JSB977	Organised and Transnational Crime
JSB985	Political Violence and Terrorism
JSB986	Death Investigation

### Potential Careers:

Administrator, Corrective Services Officer, Customs Officer, Data Communications Specialist, Database Manager, Government Officer, Information Officer, Information Security Specialist, Investigator, Network Administrator, Police Officer (Australian Federal), Police Officer (State), Policy Officer, Risk Manager, Software Engineer, Systems Manager, Systems Programmer, Systems Trainer, Youth Worker.

## Bachelor of Business / Bachelor of Corporate Systems Management (IX62)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 063022F

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$4,209 per semester (indicative)

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**International Entry:** February

**QTAC code:** 419642

**Past rank cut-off:** 81

**Past OP cut-off:** 10

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Math 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:** 384

**Course coordinator:** Dr Taizan Chan (Science and Technology); Director of Undergraduate Studies, QUT Business School; email: [bus@qut.edu.au](mailto:bus@qut.edu.au)

**Discipline coordinator:** Ms Sherrena Buckby (Accountancy); ASPRO Gayle Kerr (Advertising); Dr Tommy Tang (Economics); Dr John Chen (Finance); Mr Greg Southey (Human Resource Management); Mr Michael Cox (International Business); Dr Henri Burgers (Management); Mr Bill Proud (Marketing); and Ms Amisha Mehta (Public Relations)

**Campus:** Gardens Point

### Overview

If you love information technology environments such as Google Earth, GPS technology and mobile devices, and would like to be in a position to effectively apply them to the business world within your chosen business major, then this is the degree for you. This double degree allows you to expand on the business focus of corporate systems management with a business degree, broadening your business knowledge and career possibilities. It is designed to develop the knowledge and skills you need to understand and communicate business needs, select the right systems and harness these systems to improve business performance for organisations. You will learn to effectively manage yourself and others in response to the development and implementation of technical innovations, working as an individual and as a team member within professional contexts.

### Career Outcomes

Career destinations from this degree are business management roles such as project manager, program manager, data manager, infrastructure manager, business analyst, information analyst or business process manager; or opportunities to work as a consultant in a specialised field such as events management or marketing. For example, you may be interested in creating your own consultancy company that assists business in using IT to improve their business performance. Your choices are endless.

### Professional Recognition

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

### Course Design

Students are required to complete 384 credit points (32 units) comprised of 192 credit points (16 units) from the Bachelor of Business program and 192 credit points (16 units) from the Bachelor of Corporate Systems Management program which includes an industry based project and an IT options (elective) unit.

Business students complete 8 Business School Core Units together with 8 Major Core Units from their chosen discipline. (Accountancy students undertake 6 Business School Core Units and 10 Major Core Units to meet professional recognition requirements).

Note the following:

- the units *BSB115 Management* and *BSB126 Marketing* are part of the Business component of the IX62
- 
- the unit *MGB223 Entrepreneurship and Innovation* is part of the Corporate Systems Management component of the IX62
- 

### Cooperative Education Program

The Faculty of Science and Technology's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

### 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.

### Futher Information

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

#### Science and Technology Coordinator

Dr Taizan Chan

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

#### Business Coordinator

Phone: +61 7 3138 2050

Fax: +61 7 3138 1055  
Email: bus@qut.edu.au

**Bachelor of Business (Study Area A) / Bachelor of Corporate Systems Management**

**Year 1, Semester 1**

Business Unit

Business Unit

INB103 Industry Insights

INB120 Corporate Systems

**Year 1, Semester 2**

Business Unit

Business Unit

INB123 Project Management Practice

PLUS: IX62 Complementary Studies unit

**Year 2, Semester 1**

Business Unit

Business Unit

INB101 Impact of IT

INB122 Organisational Databases

**Year 2, Semester 2**

Business Unit

Business Unit

INB124 Information Systems Development

INB313 Electronic Commerce Site Development

**Year 3, Semester 1**

Business Unit

Business Unit

INB220 Business Analysis

INB221 Technology Management

**Year 3, Semester 2**

Business Unit

Business Unit

PLUS: IX62 Complementary Studies unit

INB320 Business Process Modelling

**Year 4, Semester 1**

Business Unit

Business Unit

INB312 Enterprise Systems Applications

INB322 Information Systems Consulting

**Year 4, Semester 2**

Business Unit

Business Unit

MGB223 Entrepreneurship and Innovation

INB325 Corporate Systems Management Project

**Accountancy Major**

**Year 1 Semester 1**

BSB110 Accounting

BSB115 Management

**Year 1 Semester 2**

BSB111 Business Law and Ethics

BSB123 Data Analysis

BSB126 Marketing

**Year 2 Semester 1**

BSB113 Economics

**Year 2 Semester 2**

AYB200 Financial Accounting

AYB225 Management Accounting

**Year 3 Semester 1**

EFB210 Finance 1

AYB221 Computerised Accounting Systems

**Year 3 Semester 2**

AYB219 Taxation Law

AYB340 Company Accounting

**Year 4 Semester 1**

AYB230 Corporations Law

AYB321 Strategic Management Accounting

**Year 4 Semester 2**

AYB301 Audit and Assurance

AYB311 Financial Accounting Issues

**Advertising Major**

**Year 1 Semester 1**

BSB113 Economics

BSB126 Marketing

**Year 1 Semester 2**

BSB110 Accounting

BSB115 Management

BSB119 Global Business

**Year 2 Semester 1**

BSB124 Working in Business

BSB111 Business Law and Ethics

**Year 2 Semester 2**

AMB200 Consumer Behaviour

AMB220 Advertising Theory and Practice

## Year 3 Semester 1

AMB201 Marketing and Audience Research

## Year 3 Semester 2

AMB318 Advertising Copywriting

AMB319 Media Planning

BSB123 Data Analysis

## Year 4 Semester 1

AMB320 Advertising Management

AMB330 Advertising Planning Portfolio

## Year 4 Semester 2

AMB339 Advertising Campaigns

## Economics Major

### Year 1 Semester 1

BSB113 Economics

BSB115 Management

### Year 1 Semester 2

BSB110 Accounting

BSB123 Data Analysis

BSB124 Working in Business

### Year 2 Semester 1

BSB111 Business Law and Ethics

BSB119 Global Business

### Year 2 Semester 2

EFB222 Quantitative Methods For Economics and Finance

EFB223 Economics 2

### Year 3 Semester 1

EFB330 Intermediate Macroeconomics

EFB331 Intermediate Microeconomics

### Year 3 Semester 2

Choice unit

Choice unit or remaining Business School Core Unit

### Year 4 Semester 1

Choice unit or remaining Business School Core Unit

Choice unit

### Year 4 Semester 2

EFB338 Contemporary Application of Economic Theory

### Choice Units

Choose any three of the following:

EFB332 Applied Behavioural Economics

EFB333 Introductory Econometrics

EFB334 Environmental Economics and Policy

EFB336 International Economics

EFB337 Game Theory and Applications

### Important Information:

Please note: BSB126 Marketing is the remaining Business Core Unit. Please check unit availability for Choice units.

## Finance Major

### Year 1 Semester 1

BSB113 Economics

BSB115 Management

### Year 1 Semester 2

BSB119 Global Business

BSB124 Working in Business

BSB126 Marketing

### Year 2 Semester 1

BSB110 Accounting

BSB111 Business Law and Ethics

### Year 2 Semester 2

BSB123 Data Analysis

### Year 3 Semester 1

EFB222 Quantitative Methods For Economics and Finance

EFB210 Finance 1

### Year 3 Semester 2

EFB201 Financial Markets

EFB223 Economics 2

EFB307 Finance 2

### Year 4 Semester 1

EFB335 Investments

### Year 4 Semester 2

EFB312 International Finance

EFB340 Finance Capstone

## Human Resource Management

### Year 1 Semester 1

BSB113 Economics

BSB115 Management

### Year 1 Semester 2

BSB124 Working in Business

BSB126 Marketing



## Year 2 Semester 1

BSB110 Accounting  
BSB111 Business Law and Ethics

## Year 2 Semester 2

BSB123 Data Analysis  
BSB119 Global Business

## Year 3 Semester 1

MGB207 Human Resource Issues and Strategy  
MGB220 Business Research Methods

## Year 3 Semester 2

MGB201 Contemporary Employment Relations  
MGB200 Leading Organisations

## Year 4 Semester 1

MGB331 Learning and Development in Organisations  
MGB339 Performance and Reward

## Year 4 Semester 2

MGB320 Recruitment and Selection  
MGB370 Personal and Professional Development

## International Business Major

### Year 1 Semester 1

BSB119 Global Business  
BSB126 Marketing

### Year 1 Semester 2

BSB110 Accounting  
BSB115 Management

### Year 2 Semester 1

BSB111 Business Law and Ethics  
BSB124 Working in Business

### Year 2 Semester 2

BSB113 Economics  
MGB225 Intercultural Communication and Negotiation Skills

### Year 3 Semester 1

AYB227 International Accounting  
BSB123 Data Analysis

### Year 3 Semester 2

AMB210 Importing and Exporting  
EFB240 Finance for International Business

### Year 4 Semester 1

AMB303 International Logistics  
AMB336 International Marketing

## Year 4 Semester 2

MGB340 International Business in the Asia-Pacific  
AMB369 International Business Strategy

## Management Major

### Year 1 Semester 1

BSB113 Economics  
BSB115 Management

### Year 1 Semester 2

BSB124 Working in Business  
BSB126 Marketing

### Year 2 Semester 1

BSB110 Accounting  
BSB111 Business Law and Ethics

### Year 2 Semester 2

BSB119 Global Business  
MGB200 Leading Organisations

### Year 3 Semester 1

MGB210 Managing Operations  
BSB123 Data Analysis

### Year 3 Semester 2

MGB201 Contemporary Employment Relations  
MGB225 Intercultural Communication and Negotiation Skills

### Year 4 Semester 1

MGB309 Strategic Management  
MGB324 Managing Business Growth

### Year 4 Semester 2

MGB310 Sustainability in A Changing Environment  
MGB335 Project Management

## Marketing Major

### Year 1 Semester 1

BSB113 Economics  
BSB126 Marketing

### Year 1 Semester 2

BSB111 Business Law and Ethics  
BSB115 Management  
BSB119 Global Business

### Year 2 Semester 1

BSB110 Accounting  
BSB124 Working in Business

## Year 2 Semester 2

BSB123 Data Analysis

## Year 3 Semester 1

AMB200 Consumer Behaviour

AMB201 Marketing and Audience Research

## Year 3 Semester 2

AMB202 Integrated Marketing Communication

AMB240 Marketing Planning and Management

## Year 4 Semester 1

AMB335 E-marketing Strategies

AMB340 Services Marketing

## Year 4 Semester 2

AMB336 International Marketing

AMB359 Strategic Marketing

## Public Relations Major

### Year 1 Semester 1

BSB119 Global Business

BSB126 Marketing

### Year 1 Semester 2

BSB110 Accounting

BSB113 Economics

BSB115 Management

### Year 2 Semester 1

BSB111 Business Law and Ethics

BSB124 Working in Business

### Year 2 Semester 2

AMB263 Introduction To Public Relations

AMB264 Public Relations Techniques

### Year 3 Semester 1

AMB201 Marketing and Audience Research

### Year 3 Semester 2

AMB372 Public Relations Planning

AMB373 Corporate Communication

BSB123 Data Analysis

### Year 4 Semester 1

AMB374 Global Public Relations Cases

### Year 4 Semester 2

AMB375 Public Relations Management

AMB379 Public Relations Campaigns

## Accountancy Major - Students who commenced in 2008

## Year 1 Semester 1

BSB110 Accounting

BSB126 Marketing

## Year 1 Semester 2

BSB115 Management

BSB123 Data Analysis

BSB124 Working in Business

## Year 2 Semester 1

BSB113 Economics

BSB111 Business Law and Ethics

## Year 2 Semester 2

AYB200 Financial Accounting

AYB230 Corporations Law

## Year 3 Semester 1

AYB340 Company Accounting

AYB225 Management Accounting

## Year 3 Semester 2

AYB219 Taxation Law

AYB221 Computerised Accounting Systems

EFB222 Quantitative Methods For Economics and Finance

## Year 4 Semester 1

AYB301 Audit and Assurance

AYB311 Financial Accounting Issues  
OR

AYB321 Strategic Management Accounting

## Year 4 Semester 2

EFB210 Finance 1

MGB223 Entrepreneurship and Innovation

## Information for Business Students

Note: Please refer to "Course Updates - List of re-coded and replacement Business units" to check for course structure changes.

## Banking and Finance Major - Students who commenced in 2008

### Year 1 Semester 1

BSB113 Economics

BSB123 Data Analysis

### Year 1 Semester 2

BSB119 Global Business

BSB124 Working in Business

BSB115 Management

# FACULTY OF SCIENCE AND TECHNOLOGY

## Year 2 Semester 1

BSB110	Accounting
BSB111	Business Law and Ethics

## Year 2 Semester 2

EFB222	Quantitative Methods For Economics and Finance
EFB210	Finance 1

## Year 3 Semester 1

EFB200	Applied Regression Analysis
EFB201	Financial Markets

## Year 3 Semester 2

EFB307	Finance 2
EFB223	Economics 2
BSB126	Marketing

## Year 4 Semester 1

EFB335	Investments
	Any Banking and Finance Unit

## Year 4 Semester 2

EFB312	International Finance
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## Important Information for Business Students

### Course Updates - List of re-coded and replacement Business units

#### Faculty Core units

BSB114	is replaced by BSB124 Working in Business
BSB115	now retitled BSB115 Management
BSB119	now retitled BSB119 Global Business
BSB122	is replaced by BSB123 Data Analysis

#### Accountancy Core units

AYB121	is now AYB200 Financial Accounting AYB121
AYB220	is now AYB340 Company Accounting AYB220
AYB301	now retitled AYB301 Audit and Assurance

#### Advertising Core units

AMB221	is now AMB318 Advertising Copywriting
AMB222	is now AMB319 Media Planning
AMB321	is now AMB339 Advertising Campaigns

#### Banking and Finance Core units

EFB101	is replaced by EFB222 Quantitative Methods for Economics and Finance
EFB102	now retitled EFB223 Economics 2

#### Economics Core units

EFB101	is replaced by EFB222 Quantitative Methods for Economics and Finance
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EFB102	now retitled EFB223 Economics 2
EFB202	is replaced by EFB330 Intermediate Macroeconomics
EFB211	is replaced by EFB331 Intermediate Microeconomics
EFB314	is replaced by EFB336 International Economics
EFB329	is now EFB338 Contemporary Application of Economic

#### Electronic Business Core units

BSB212	is replaced by AYB114 Business Technologies
BSB213	is replaced by AYB115 Governance Issues and Fraud
BSB314	is replaced by Forensic and Business Intelligence
ITB233	is now INB312 Enterprise Systems Application
ITB823	is now INB830 Web Sites for E-Commerce
ITB239	is now INB342 Enterprise Data Mining

#### Human Resource Management Core units

MGB220	now retitled MGB220 Business Research Methods
MGB221	is now MGB339 Performance and Reward

#### International Business Core units

IBB202	is replaced by EFB240 Finance for International Business
IBB208	IBB208 is no longer offered. Please contact the School of AMPR regarding a replacement unit. (Email: ampradmin@qut.edu.au)
IBB210	is now replaced by AMB210 Importing and Exporting
IBB213	is now AMB336 International Marketing
IBB217	IBB217 is no longer offered. Please contact the School of AMPR regarding a replacement unit. (Email: ampradmin@qut.edu.au)
IBB300	is now AMB369 International Business Strategy
IBB308	is replaced by MGB340 International Business in the Asia-Pacific

#### Management Core units

MGB310	Sustainability in a Changing Environment was formerly known as MGB212 and MGB334
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#### Marketing Core units

AMB241	is now AMB335 E-Marketing Strategies
AMB341	is now AMB359 Strategic Marketing

#### Public Relations Core units

AMB260	is replaced by AMB263 Introduction to Public Relations
AMB360	is replaced by AMB373 Corporate Communication
AMB361	is replaced by AMB379 Public Relations Campaigns

# FACULTY OF SCIENCE AND TECHNOLOGY

## Business Law and Tax Extended Major (BLX)

AYB223	replaced by AYB230 Corporations Law
AYB325	is now AYB219 Taxation Law
AYB305	is replaced by AYB205 Law of Business Entities
AYB312	is now AYB232 Financial Institutions

## Professional Accounting Extended Major (PAX)

AYB223	is replaced by AYB230 Corporations Law
AYB325	is now AYB219 Taxation Law

## Advertising Extended Major (ADX)

AMB230	now retitled AMB230 Digital Promotions
AMB330	now retitled AMB330 Advertising Planning Portfolio

## Banking Extended Major (BFX)

AYB312	is now AYB232 Financial Institutions Law
EFB200	is replaced by EFB333 Introductory Econometrics
EFB318	is replaced by EFB335 Investments

## Financial Economics Extended Major (FEX) (for Banking & Finance Students)

EFB200	is replaced by EFB333 Introductory Econometrics
EFB202	is replaced by EFB330 Intermediate Macroeconomics
EFB211	is replaced by EFB331 Intermediate Microeconomics
EFB325	is replaced by EFB336 International Economics
EFB318	is replaced by EFB335 Investments
EFB324	is replaced by EFB337 Game Theory and Applications

## Financial Economics Extended Major (FEX) (for Economics Students)

EFB200	is replaced by EFB333 Introductory Econometrics
EFB324	is replaced by EFB201 Financial Markets
EFB325	is replaced by EFB337 Game Theory and Applications

## Funds Management Extended Major (FDX)

EFB318	is replaced by EFB335 Investments
AYB312	is now AYB232 Financial Institutions Law
EFB200	is replaced by EFB333 Introductory Econometrics

## Human Resource Management Extended Major (HRX)

MGB315	is now MGB370 Personal and Professional Development
IBB205	is now MGB225 Intercultural Communication and Negotiation Skills
MGB310	Sustainability in a Changing Environment was

formerly known as MGB212 and MGB334

## International Business Extended Major (IBX)

IBB205	is now MGB225 Intercultural Communication and Negotiation Skills
IBB303	is now AMB303 International Logistics
AMB230	now retitled AMB230 Digital Promotions
IBB312	is replaced by AMB300 Independent Project 1

## Management Extended Major (MNX)

IBB205	is now MGB225 Intercultural Communication and Negotiation Skills
MGB218	is now MGB324 Managing Business Growth
MGB315	is now MGB370 Personal & Professional Development
IBB210	is replaced by AMB210 Import and Exporting
IBB303	is now AMB303 International Logistics

## Marketing Extended Major (MKX)

AMB251	now retitled AMB251 Innovation and Brand Management
AMB260	is replaced by AMB263 Introduction to Public Relations
AMB351	is now AMB209 Tourism Marketing
AMB352	is replaced by AMB252 Business Decision Making
AMB354	is now AMB208 Events Marketing
IBB213	is now AMB336 International Marketing
IBB303	is now AMB303 International Logistics

## Public Relations Extended Major (PRX)

AMB370	is replaced by AMB374 Global Public Relations Cases
AMB371	is replaced by AMB375 Public Relations Management

## Business Law and Tax Specialisation (BLS)

AYB223	is replaced by AYB230 Corporations Law
AYB325	is now AYB219 Taxation Law
AYB305	is now AYB205 Company Law & Practice
AYB312	is now AYB232 Financial Institutions Law
BSB213	is now AYB115 Governance Issues in E-Business

## Electronic Business Specialisation (EUS)

BSB212	is replaced by AYB114 Business Technologies
BSB213	is replaced by AYB115 Governance Issues and Fraud
BSB314	is replaced by AYB341 Forensic and Business Intelligence
ITB233	is now INB312 Enterprise Systems Applications
ITB823	is now INB830 Web Sites for E-Commerce
ITB239	is now INB342 Enterprise Data Mining

## Financial Economics Specialisation (FES)

EFB102	is replaced by EFB223 Economics 2
EFB202	is replaced by EFB330 Intermediate Macroeconomics
EFB211	is replaced by EFB331 Intermediate Microeconomics
EFB329	is now 338 Contemporary Applications of Economics
EFB314	is replaced by EB336 International Economics
EFB324	is replaced by EFB201 Financial Markets
EFB325	is replaced by EFB337 Game Theory and Applications

## Integrated Marketing Communication Specialisation (IMS)

AMB260	is replaced by AMB263 Introduction to Public Relations
AMB230	now retitled AMB230 Digital Promotions
AMB354	is now AMB208 Events Marketing

## International Logistics Specialisation (ILG)

IBB303	is now AMB303 International Logistics
BSB314	is replaced by AYB341 Forensic and Business Intelligence
IBB210	is replaced by AMB210 Importing and Exporting
EFB213	is replaced by AMB252 Business Decision Making (offered Sem 2); OR MGB335 Project Management (offered Sem 1 & 2)

## Sales Specialisation (SALES)

AMB230	now retitled AMB230 Digital Promotion
AMB250	is replaced by MGB225 Intercultural Communication and Negotiation Skills

## International Exchange Specialisation (IEX)

IBB205	is now MGB225 Intercultural Communication and Negotiation Skills
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## IT - Complementary Study Unit List

Complementary Study Units: A maximum of 96 credit points can be chosen from:

- The list of Breadth and Specialisation units.
  - Students can also choose from the range of CISCO units including INS350, INS351, INS352, INS354, INS356 and INS357.
  - Undergraduate units from other IT related degrees (e.g. INB124, INB180, INB181, INB182, INB280 or INB383).
  - Undergraduate units available with other QUT faculties.
  - Enrolment in INB830 or INB870 will NOT be counted towards completion of IT23.
- NOTE: A maximum of 48 credit points of Advanced Standing for professional certifications is permitted towards completion of IT23 (including INS35X CISCO Units).

## IT Breadth Option Unit List

## IT Breadth Option Units

You must complete four (4) units from the following list. You should not commence these units until you have completed INB101, INB102, INB103 and INB104.

INB120	Corporate Systems
INB210	Databases
INB220	Business Analysis
INB250	Foundations of Computer Science
INB251	Networks
INB255	Security
INB270	Programming
INB271	The Web
INB272	Interaction Design

## IT Specialisation Option Unit List

## IT Specialist Option Units

You must complete four (4) units from the following list. Please ensure you have completed a minimum of 36 credit points (3 units) of IT Breadth Option Units before commencing these units. The units are grouped in areas to assist you in focusing your studies.

- BUSINESS PROCESS MANAGEMENT:**
  - INB320 Business Process Modelling
  - INB321 Business Process Management
  - INB322 Information Systems Consulting
  - INB123 Project Management Practice
- DATA WAREHOUSING:**
  - INB340 Database Design
  - INB341 Software Development With Oracle
  - INB342 Enterprise Data Mining and Data Analysis
  - INB343 Advanced Data Mining and Data Warehousing
  - INB344 Search Engine Technology
- DIGITAL ENVIRONMENTS:**
  - INB345 Mobile Devices
  - INB346 Enterprise 2.0
  - INB347 Web 2.0 Applications
  - INB335 Information Resources
- ENTERPRISE SYSTEMS:**
  - INB123 Project Management Practice
  - INB221 Technology Management
  - INB311 Enterprise Systems
  - INB312 Enterprise Systems Applications
- NETWORK SYSTEMS:**
  - INB350 Internet Protocols and Services
  - INB351 Unix Network Administration
  - INB352 Network Planning
  - INB353 Wireless and Mobile Networks



6.	SOFTWARE ENGINEERING:	Account Executive, Accountant, Actuary, Administrator, Advertising Professional, Banker, Banking and Finance Professional, Business Analyst, Certified Practising Accountant, Corporate Secretary, Economist, Financial Advisor/Analyst, Financial Project Manager, Funds Manager, Government Officer, Human Resource Manager, International Business Specialist, Manager, Marketing Officer/Manager, Public Relations Officer/Consultant.
INB370	Software Development	
INB371	Data Structures and Algorithms	
INB372	Agile Software Development	
INB374	Enterprise Software Architecture	
7.	WEB TECHNOLOGIES:	
INB313	Electronic Commerce Site Development	
INB373	Web Application Development	
INB374	Enterprise Software Architecture	
INB385	Multimedia Systems	
INB386	Advanced Multimedia Systems	
8.	UNGROUPED:	
INB204	Special Topic 1	
INB205	Special Topic 2	
INB304	Special Topic 3	
INB305	Special Topic 4	
INB306	Project 1	
INB307	Project 2	
INB308	Project 3	
INB355	Cryptology and Protocols	
INB365	Systems Programming	
INB381	Modelling and Animation Techniques	
INB382	Real Time Rendering Techniques	
INB860	Computational Intelligence for Control and Embedded Systems	

## CISCO Units

CISCO Units	
	Students can choose from the following CISCO units as part of the Complementary Study Units (CISCO units located under Information Technology University Wide Unit Options on e-Student.)
INS350	CCNA 1&2 Network Fundamentals and Routing
INS351	CCNA 3&4 Lan Switching
INS352	CCNP1: Building Scalable Internetworks
INS354	CCNP3: Building Multi Layered Switched Networks
INS356	Voice Over IP 1
INS357	CISCO VOIP

## IX62 Complementary Study Unit List

Complementary Study Units: A maximum of 24 credit points can be chosen from:

1. The list of Breadth and Specialisation units.
2. Students can also choose from the range of CISCO units including INS350, INS351, INS352, INS353, INS354 and INS355.

## Potential Careers:

## **Bachelor of Business/Bachelor of Games and Interactive Entertainment (IX63)**

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 063024D

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$4,209 per semester (indicative)

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419692

**Past rank cut-off:** 81

**Past OP cut-off:** 10

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Math 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:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Michael Docherty (Science and Technology); Director of Undergraduate Studies, QUT Business School; email: [bus@qut.edu.au](mailto:bus@qut.edu.au)

**Discipline coordinator:** Ms Ros Kent (Accountancy); Ms Sherrena Buckby (Accountancy); ASPRO Gayle Kerr (Advertising); Dr Tommy Tang (Economics); Dr John Chen (Finance); Mr Greg Southey (Human Resource Management); Mr Michael Cox (International Business); Dr Henri Burgers (Management); Mr Bill Proud (Marketing); and Ms Amisha Mehta (Public Relations)

**Campus:** Gardens Point

### **Overview**

This double degree gives you the opportunity to apply your business skills within the booming industry of digital entertainment and electronic games. You will not only expand your business skills but also your creative skills through the development of computer games and other forms of interactive media. You will learn to apply your critical creative thinking to identify issues and solve problems related to various technical, creative and cultural aspects of games development. Being creative and innovative is a strong skill to have in business.

Having a business background gives you a competitive advantage over other games and interactive entertainment graduates as it gives you the knowledge of how business works. You will understand issues related to people and process management in games development and demonstrate the ability to be an effective leader and innovator. You will develop lifelong skills to enable you to continuously improve games and interactive entertainment.

In the business component of this double degree, you will gain broad-based business knowledge and skills that will prepare you for any business role, along with the specialist skill and knowledge in your choice of business major in

accountancy, advertising, economics, finance, human resource management, international business, management, marketing or public relations.

In the games and interactive entertainment component you will have the opportunity to develop your creative skills in the area of your chosen major in animation, digital media, game design or software technologies. In your final year you will participate in a major group project to produce a significant piece of work using PC, mobile devices, consoles or virtual reality.

### **Career Outcomes**

Graduates may find employment in management roles within the games and entertainment industry, such as project manager, production manager, producer, content manager, business development manager, product manager or marketer.

### **Course Design**

Students will be required to complete 192 credit points from the Bachelor of Games and Interactive Entertainment; and 192 credit points from the Bachelor of Business course.

**Business Component:** Students must complete the 96 credit point Business School Core Units in the Business program together with a 96 credit point minor.

Students will undertake the two components of the double degree concurrently.

### **Cooperative Education Program**

The Faculty of Science and Technology's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

### **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.

### **Further Information**

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

## **Science and Technology Coordinator**

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

## **Business Coordinator**

Phone: +61 7 3138 2050  
Fax: +61 7 3138 1055  
Email: bus@qut.edu.au

## **Bachelor of Business (Study Area A)/ Bachelor of Games and Interactive Entertainment (Study Area A)**

### **Year 1, Semester 1**

	Business School Core Unit - See Appendix 1
	Business School Core Unit - See Appendix 1
INB180	Computer Games Studies
INB182	Introducing Design

### **Year 1, Semester 2**

	Business School Core Unit - See Appendix 1
	Business School Core Unit - See Appendix 1
INB181	Introduction to Games Production
INB104	Building IT Systems

### **Year 2, Semester 1**

	Business School Core Unit - See Appendix 1
	Business School Core Unit - See Appendix 1
INB103	Industry Insights
	Games & Interactive Entertain Major Unit

### **Year 2, Semester 2**

	Business School Core Unit - See Appendix
	Business School Core Unit - See Appendix
	Games & Interactive Entertain Major Unit
	Games & Interactive Entertain Major Unit

### **Year 3, Semester 1**

	Business School Major Unit - See Appendix
	Business School Major Unit - See Appendix
	Games & Interactive Entertain Major Unit
	Games & Interactive Entertain Major Unit

### **Year 3, Semester 2**

	Business School Major Unit - See Appendix
	Business School Major Unit - See Appendix
	Games & Interactive Entertain Major Unit
	Games & Interactive Entertainment Major Unit

### **Year 4, Semester 1**

	Business School Major Unit - See Appendix
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Business School Major Unit - See Appendix  
Games & Interactive Entertainment Major Unit  
INB379 Game Project Design

### **Year 4, Semester 2**

	Business School Major Unit - See Appendix
	Business School Major Unit - See Appendix
INB380	Games Project

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

### **Animation**

	Select 8 units from:
KIB105	Animation and Motion Graphics
KIB108	Animation History and Practices
KVB105	Drawing for Design
KVB106	Drawing for Animation
KIB220	Animation Production
KIB203	Introduction to 3D Computer Graphics
KIB221	Animation: CG Toolkit
KIB225	Character Development, Conceptual Design and Animation Layout
KIB316	Virtual Environments
KIB325	Real-Time 3D Computer Graphics

### **Digital Media**

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

### **Game Design**

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

### **Software Technologies\***

	* Requirements for this Major is a SA or better in Queensland Maths B (or equivalent)
INB270	Programming
MAB281	Mathematics for Computer Graphics

## FACULTY OF SCIENCE AND TECHNOLOGY

INB210	Databases
INB250	Computer Architectures and Systems
INB370	Software Development
INB371	Data Structures and Algorithms
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques

OR

INB383	AI for Games
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### Accountancy Major

#### Year 1 Semester 1

BSB110	Accounting
BSB115	Management

#### Year 1 Semester 2

BSB123	Data Analysis
BSB126	Marketing

#### Year 2 Semester 1

BSB111	Business Law and Ethics
BSB113	Economics

#### Year 2 Semester 2

AYB200	Financial Accounting
AYB225	Management Accounting

#### Year 3 Semester 1

EFB210	Finance 1
AYB221	Computerised Accounting Systems

#### Year 3 Semester 2

AYB219	Taxation Law
AYB340	Company Accounting

#### Year 4 Semester 1

AYB230	Corporations Law
AYB321	Strategic Management Accounting

#### Year 4 Semester 2

AYB301	Audit and Assurance
AYB311	Financial Accounting Issues

### Advertising Major

#### Year 1 Semester 1

BSB126	Marketing
BSB113	Economics

#### Year 1 Semester 2

BSB110	Accounting
BSB115	Management

#### Year 2 Semester 1

BSB124	Working in Business
BSB119	Global Business

#### Year 2 Semester 2

AMB200	Consumer Behaviour
AMB220	Advertising Theory and Practice

#### Year 3 Semester 1

AMB201	Marketing and Audience Research
BSB111	Business Law and Ethics

#### Year 3 Semester 2

AMB318	Advertising Copywriting
AMB319	Media Planning

#### Year 4 Semester 1

AMB320	Advertising Management
AMB330	Advertising Planning Portfolio

#### Year 4 Semester 2

AMB339	Advertising Campaigns
BSB123	Data Analysis

### Economics Major

#### Year 1 Semester 1

BSB113	Economics
BSB115	Management

#### Year 1 Semester 2

BSB124	Working in Business
BSB123	Data Analysis

#### Year 2 Semester 1

BSB110	Accounting
BSB111	Business Law and Ethics

#### Year 2 Semester 2

EFB222	Quantitative Methods For Economics and Finance
EFB223	Economics 2

#### Year 3 Semester 1

EFB330	Intermediate Macroeconomics
EFB331	Intermediate Microeconomics

#### Year 3 Semester 2

Choice units or remaining Business School Core Units

Choice units or remaining Business School Core Units

#### Year 4 Semester 1

Choice units or remaining Business School Core Units

Choice units or remaining Business School Core Units

## Year 4 Semester 2

EFB338 Contemporary Application of Economic Theory  
Choice units or remaining Business School Core Units

## Choice Units

Choose any three of the following:

EFB332 Applied Behavioural Economics  
EFB333 Introductory Econometrics  
EFB334 Environmental Economics and Policy  
EFB336 International Economics  
EFB337 Game Theory and Applications

## Important Information

Please: BSB119 and BSB126 are the remaining Business School Core Units to be completed. Please check for unit availability when selecting Choice units.

## Finance Major

### Year 1 Semester 1

BSB113 Economics  
BSB115 Management

### Year 1 Semester 2

BSB124 Working in Business  
BSB126 Marketing

### Year 2 Semester 1

BSB110 Accounting  
BSB111 Business Law and Ethics

### Year 2 Semester 2

BSB119 Global Business  
BSB123 Data Analysis

### Year 3 Semester 1

EFB222 Quantitative Methods For Economics and Finance  
EFB210 Finance 1

### Year 3 Semester 2

EFB201 Financial Markets  
EFB307 Finance 2

### Year 4 Semester 1

EFB223 Economics 2  
EFB335 Investments

### Year 4 Semester 2

EFB312 International Finance

EFB340 Finance Capstone

## Human Resources Management Major

### Year 1 Semester 1

BSB113 Economics  
BSB115 Management

### Year 1 Semester 2

BSB124 Working in Business  
BSB126 Marketing

### Year 2 Semester 1

BSB110 Accounting  
BSB111 Business Law and Ethics

### Year 2 Semester 2

BSB123 Data Analysis  
BSB119 Global Business

### Year 3 Semester 1

MGB207 Human Resource Issues and Strategy  
MGB220 Business Research Methods

### Year 3 Semester 2

MGB200 Leading Organisations  
MGB201 Contemporary Employment Relations

### Year 4 Semester 1

MGB331 Learning and Development in Organisations  
MGB339 Performance and Reward

### Year 4 Semester 2

MGB320 Recruitment and Selection  
MGB370 Personal and Professional Development

## International Business Major

### Year 1 Semester 1

BSB126 Marketing  
BSB119 Global Business

### Year 1 Semester 2

BSB110 Accounting  
BSB115 Management

### Year 2 Semester 1

BSB124 Working in Business  
BSB123 Data Analysis

### Year 2 Semester 2

BSB111 Business Law and Ethics  
BSB113 Economics

### Year 3 Semester 1



MGB225 Intercultural Communication and Negotiation Skills

AYB227 International Accounting

**Year 3 Semester 2**

AMB210 Importing and Exporting

EFB240 Finance for International Business

**Year 4 Semester 1**

AMB303 International Logistics

AMB336 International Marketing

**Year 4 Semester 2**

MGB340 International Business in the Asia-Pacific

AMB369 International Business Strategy

**Management Major**

**Year 1 Semester 1**

BSB113 Economics

BSB115 Management

**Year 1 Semester 2**

BSB124 Working in Business

BSB126 Marketing

**Year 2 Semester 1**

BSB110 Accounting

BSB111 Business Law and Ethics

**Year 2 Semester 2**

BSB119 Global Business

BSB123 Data Analysis

**Year 3 Semester 1**

MGB210 Managing Operations

MGB223 Entrepreneurship and Innovation

**Year 3 Semester 2**

MGB200 Leading Organisations

MGB225 Intercultural Communication and Negotiation Skills

**Year 4 Semester 1**

MGB309 Strategic Management

MGB324 Managing Business Growth

**Year 4 Semester 2**

MGB310 Sustainability in A Changing Environment

MGB335 Project Management

**Marketing Major**

**Year 1 Semester 1**

BSB126 Marketing

BSB113 Economics

**Year 1 Semester 2**

BSB111 Business Law and Ethics

BSB115 Management

**Year 2 Semester 1**

BSB119 Global Business

BSB124 Working in Business

**Year 2 Semester 2**

BSB110 Accounting

BSB123 Data Analysis

**Year 3 Semester 1**

AMB200 Consumer Behaviour

AMB201 Marketing and Audience Research

**Year 3 Semester 2**

AMB202 Integrated Marketing Communication

AMB240 Marketing Planning and Management

**Year 4 Semester 1**

AMB335 E-marketing Strategies

AMB340 Services Marketing

**Year 4 Semester 2**

AMB336 International Marketing

AMB359 Strategic Marketing

**Public Relations Major**

**Year 1 Semester 1**

BSB119 Global Business

BSB126 Marketing

**Year 1 Semester 2**

BSB110 Accounting

BSB115 Management

**Year 2 Semester 1**

BSB124 Working in Business

BSB113 Economics

**Year 2 Semester 2**

AMB263 Introduction To Public Relations

AMB264 Public Relations Techniques

**Year 3 Semester 1**

BSB111 Business Law and Ethics

AMB201 Marketing and Audience Research

**Year 3 Semester 2**

AMB372 Public Relations Planning

AMB373 Corporate Communication

**Year 4 Semester 1**

AMB374 Global Public Relations Cases

AMB375 Public Relations Management

**Year 4 Semester 2**

AMB379 Public Relations Campaigns

BSB123 Data Analysis

**Potential Careers:**

Account Executive, Accountant, Actuary, Administrator, Advertising Professional, Banker, Banking and Finance Professional, Business Analyst, Certified Practicing Accountant, Corporate Secretary, Economist, Financial Advisor/Analyst, Financial Project Manager, Government Officer, Human Resource Manager, Information Officer, International Business Specialist, Manager, Marketing Officer/Manager, Public Relations Officer/Consultant.

## Bachelor of Games and Interactive Entertainment/Bachelor of Mathematics (IX64)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 063031E

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,028 (indicative) per semester

**International Fees (indicative):** 2011: \$11,375 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 418672

**Past rank cut-off:** 81

**Past OP cut-off:** 10

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Michael Docherty (Games and Interactive Entertainment Major); Dr Tim Moroney (Mathematics Major) Tim Moroney (Mathematics Major)

**Campus:** Gardens Point

### Course Overview

This double degree gives you the opportunity to use your problem-solving skills to develop realistic games in a competitive gaming environment. A decade ago, people probably wouldn't have noticed if the cape the game hero was wearing didn't flap in the wind as he ran, or that the boxes in the corner of the room of the dungeon didn't fall over when they are run into in a fight. Nowadays, serious gamers notice and demand this type of realism in their virtual worlds. This is where your maths and problem-solving capabilities come into play. Complex formulae are used in games design to create realistic scenes, and knowledge of mathematics will certainly aid your understanding.

Students undertake core units from both their Bachelor of Mathematics and Bachelor of Games and Interactive Entertainment. They can subsequently select from the strands of applied, computational, discrete and financial mathematics; mathematical modelling; operations research; scientific computation and visualisation; statistics and statistical modelling in their Bachelor of Mathematics and from the majors of animation, digital media, game design or software technologies in their Bachelor of Games and Interactive Entertainment degree.

### Career Outcomes

A graduate may find work in film and television special effects or in the games and interactive entertainment environments making games look more realistic (such as concept artist).

### Professional Recognition

Membership of the Australian Mathematical Society, the Statistical Society of Australia and the Australian Society for Operations Research is available. This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

### Cooperative Education Program

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

### Further Information

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

#### *Games and Interactive Entertainment*

Michael Docherty

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

#### *Mathematical Sciences*

Dr Tim Moroney

Phone: +61 7 3138 2262

Email: [t.moroney@qut.edu.au](mailto:t.moroney@qut.edu.au)

### Financial Support

You should consider applying for an industry-sponsored mathematics bursary to help you financially throughout your studies. For further information visit Scholarships.

### 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.

### Course Structure for Students with Four Semesters of Senior Mathematics B and Senior Mathematics C

#### Year 1, Semester 1

INB180	Computer Games Studies
INB182	Introducing Design
MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry

#### Year 1, Semester 2

INB181	Introduction to Games Production
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## FACULTY OF SCIENCE AND TECHNOLOGY

INB104	Building IT Systems
MAB101	Statistical Data Analysis 1
MAB220	Computational Mathematics 1

### Year 2, Semester 1

INB103	Industry Insights Games & Interactive Entertain Major Unit
MAB210	Statistical Modelling 1
MAB312	Linear Algebra

### Year 2, Semester 2

Games & Interactive Entertain Major Unit
Games & Interactive Entertain Major Unit
Level 2 or 3 Maths Unit
Level 2 or 3 Maths Unit

### Year 3, Semester 1

	Games & Interactive Entertain Major
	Games & Interactive Entertain Major
MAB311	Advanced Calculus
	Level 2 or 3 Maths Unit

### Year 3, Semester 2

Games & Interactive Entertain Major
Games & Interactive Entertain Major
Level 2 or 3 Maths Unit
Level 2 or 3 Maths Unit

### Year 4, Semester 1

INB379	Game Project Design Games & Interactive Entertain Major Level 2 or 3 Maths Unit Level 2 or 3 Maths Unit
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### Year 4, Semester 2

INB380	Games Project Level 2 or 3 Maths Unit Level 2 or 3 Maths Unit
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### Course Structure for Students with Four Semesters of Senior Mathematics B Only

#### Year 1, Semester 1

INB180	Computer Games Studies
INB182	Introducing Design
MAB101	Statistical Data Analysis 1
MAB120	Algebra and Calculus

#### Year 1, Semester 2

INB181	Introduction to Games Production
INB104	Building IT Systems
MAB121	Calculus and Differential Equations

MAB122	Algebra and Analytic Geometry
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### Year 2, Semester 1

INB103	Industry Insights Games and Interactive Entertain Major Unit
MAB220	Computational Mathematics 1
MAB312	Linear Algebra

### Year 2, Semester 2

	Games and Interactive Entertain Major Unit
	Games and Interactive Entertain Major Unit
MAB210	Statistical Modelling 1
	Level 2 or 3 Maths Unit

### Year 3, Semester 1

	Games and Interactive Entertain Major Unit
	Games and Interactive Entertain Major Unit
MAB311	Advanced Calculus
	Level 2 or 3 Maths Unit

### Year 3, Semester 2

Games and Interactive Entertain Major Unit
Games and Interactive Entertain Major Unit
Level 2 or 3 Maths Unit
Level 2 or 3 Maths Unit

### Year 4, Semester 1

INB379	Game Project Design Games and Interactive Entertain Major Unit Level 2 or 3 Maths Unit Level 2 or 3 Maths Unit
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### Year 4, Semester 2

INB380	Games Project Level 2 or 3 Maths Unit Level 2 or 3 Maths Unit
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### Bachelor of Games & Interactive Entertainment Majors Course structure (Block B)

#### Animation

Select 8 units from:

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

# FACULTY OF SCIENCE AND TECHNOLOGY

KIB325 Real-Time 3D Computer Graphics

MAB480 Introduction to Scientific Computation

## Digital Media

KIB101 Visual Communication

KIB102 Visual Interactions

INB345 Mobile Devices

INB386 Advanced Multimedia Systems

KIB309 Embodied Interactions

KIB230 Interface and Information Design

INB385 Multimedia Systems

KIB314 Tangible Media

## Game Design

INB280 Fundamentals of Game Design

INB272 Interaction Design

KIB201 Concept Development for Game Design and Interactive Media

KIB202 Enabling Immersion

INB282 Games Level Design

DEB103 Visualisation 1

INB281 Advanced Game Design

KIB214 Design for Interactive Media

## Software Technologies\*

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

INB270 Programming

MAB281 Mathematics for Computer Graphics

INB210 Databases

INB250 Computer Architectures and Systems

INB370 Software Development

INB371 Data Structures and Algorithms

INB381 Modelling and Animation Techniques

INB382 Real Time Rendering Techniques

OR

INB383 AI for Games

## Mathematics Units

### Level 2 Units

MAB311 Advanced Calculus

MAB312 Linear Algebra

MAB313 Mathematics of Finance

MAB314 Statistical Modelling 2

MAB315 Operations Research 2

MAB413 Differential Equations

MAB414 Applied Statistics 2

MAB420 Computational Mathematics 2

MAB422 Mathematical Modelling

MAB461 Discrete Mathematics

Note: MAB311 Advanced Calculus and MAB312 Linear Algebra are mandatory units.

### Level 3 Units - at least 4 units must be selected

MAB521 Applied Mathematics 3

MAB522 Computational Mathematics 3

MAB524 Statistical Inference

MAB525 Operations Research 3A

MAB533 Statistical Techniques

MAB536 Time Series Analysis

MAB613 Partial Differential Equations

MAB623 Financial Mathematics

MAB624 Applied Statistics 3

MAB625 Operations Research 3B

MAB640 Industry Project

MAB672 Advanced Mathematical Modelling

Note: MAB523 Introduction to Quality Management and MAB621 Discrete Mathematics do not contribute to the mandatory 48 credit points minimum from Level 3 Mathematics units.

### Potential Careers:

Actuary, Computer Game Programmer, Market Research Manager, Mathematician, Quantitative Analyst, Statistician.



## Bachelor of Applied Science/Bachelor of Games and Interactive Entertainment (IX65)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 063032D

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,300 (indicative) per semester

**International Fees (indicative):** 2011: \$11,500 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 418682

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr Perry Hartfield (Science), Michael Docherty (Information Systems)

**Discipline coordinator:** Dr Perry Hartfield (Biochemistry Major); Dr Marion Bateson (Biotechnology Major); Dr John McMurtrie (Chemistry Major); Dr Ian Williamson (Ecology Major); Dr Robin Thwaites (Environmental Science Major); Dr Emad Kiriakous (Forensic Science Major); Dr Gary Huftile (Geoscience Major); Dr Christine Knox (Microbiology Major); Dr Greg Michael (Physics Major)

**Campus:** Gardens Point

### Course Overview

When you are playing a computer game, have you ever wondered why your characters interact realistically with their environment as they move around their virtual world? If you think about it, you will quickly realise that there is no way games developers could have predicted the exact sequence of events that occurred in that precise game session. Something more general must be happening—there must be some physics in the game's virtual world.

This double degree offers you the opportunity to apply your scientific knowledge to the world of interactive games. In the science component, students complete a set of core units in science to support advanced-level studies in specialist areas. Students select a science major and undertake laboratory work and may participate in fieldwork. In the games and interactive entertainment component, students also complete a set of core units and choose a major. In their final year, students participate in a major group project to produce a significant piece of work using PC, mobile devices, consoles or virtual reality.

### Career Outcomes

Knowledge of science underpins more than you might think. As a graduate of the Applied Science/Games and Interactive Entertainment double degree you may find work as a graphic/games designer. You may work on such things

as making car games realistic, making people move more realistically using your knowledge of the laws of motion, or creating three-dimensional games.

### Professional Recognition

Graduates will satisfy the requirements of membership in the relevant professional body for their chosen science major. See

Studyfinder for details on the Bachelor of Applied Science majors. The software technologies major of the Bachelor of Games and Interactive Entertainment is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

### Recommended Study

At least one of the sciences. For biochemistry, biotechnology, forensic science, and microbiology majors - Biological Science and Chemistry; for physic major - Maths C.

### Cooperative Education Program

The Faculty's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

### Unit Incompatibility/Translation Information

Details on the translation and incompatibility of old and new units is located here:

Undergraduate Translation Table

If you have completed the unit(s) listed under the "Translation Unit Codes" column you are not permitted to enrol in the listed new code.

### Further Information

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

#### **Games and Interactive Entertainment Coordinator**

Michael Docherty

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

#### **Science Coordinator**

Dr Perry Hartfield

Phone: +61 7 3138 2984

Email: [p.hartfield@qut.edu.au](mailto:p.hartfield@qut.edu.au)

### Discipline Coordinators

#### **Biochemistry**

Dr Perry Hartfield

Phone: +61 7 3138 2984

Email: [p.hartfield@qut.edu.au](mailto:p.hartfield@qut.edu.au)

### **Biotechnology**

Dr Marion Bateson  
Phone: +61 7 3138 1269  
Email: m.bateson@qut.edu.au

### **Chemistry**

Dr John McMurtrie  
Phone: +61 7 3138 1220  
Email: j.mcmurtrie@qut.edu.au

### **Ecology**

Dr Ian Williamson  
Phone: +61 7 3138 2779  
Email: i.williamson@qut.edu.au

### **Environmental Science**

Dr Robin Thwaites  
Phone: +61 7 3138 2400  
Email: r.thwaites@qut.edu.au

### **Forensic Science**

Dr Emad Kiriakous  
Phone: +61 7 3138 2501  
Email: e.kiriakous@qut.edu.au

### **Geoscience**

Dr Gary Huftile  
Phone: +61 7 3138 4470  
Email: g.huftile@qut.edu.au

### **Microbiology**

Dr Christine Knox  
Phone: +61 7 3138 2301  
Email: c.knox@qut.edu.au

### **Physics**

Dr Greg Michael  
Phone: +61 7 3138 1584  
Email: g.michael@qut.edu.au top

### **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.

### **Bachelor of Applied Science(Study Area A)/Bachelor of Games and Interactive Entertain (Study Area A)**

#### **Year 1, Semester 1**

Applied Science Unit  
Applied Science Unit  
INB180 Computer Games Studies  
INB182 Introducing Design

#### **Year 1, Semester 2**

Applied Science Unit

Applied Science Unit

INB181 Introduction to Games Production

INB104 Building IT Systems

#### **Year 2, Semester 1**

Applied Science Unit

Applied Science Unit

INB103 Industry Insights

Games & Interactive Entertainment Major Unit

#### **Year 2, Semester 2**

Applied Science Unit

Applied Science Unit

Games & Interactive Entertainment Major Unit

Games & Interactive Entertainment Major Unit

#### **Year 3, Semester 1**

Applied Science Unit

Applied Science Unit

Games & Interactive Entertainment Major Unit

Games & Interactive Entertainment Major Unit

#### **Year 3, Semester 2**

Applied Science Unit

Applied Science Unit

Games & Interactive Entertainment Major Unit

Games & Interactive Entertainment Major Unit

#### **Year 4, Semester 1**

Applied Science Unit

Applied Science Unit

INB379 Game Project Design

Games & Interactive Entertainment Major Unit

#### **Year 4, Semester 2**

Applied Science Unit

Applied Science Unit

INB380 Games Project

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

#### **Animation**

Select 8 units from:

KIB105 Animation and Motion Graphics

KIB108 Animation History and Practices

KVB105 Drawing for Design

KVB106 Drawing for Animation

KIB220 Animation Production

KIB203 Introduction to 3D Computer Graphics

KIB221 Animation: CG Toolkit

## FACULTY OF SCIENCE AND TECHNOLOGY

KIB225 Character Development, Conceptual Design and Animation Layout

KIB316 Virtual Environments

KIB325 Real-Time 3D Computer Graphics

### Digital Media

KIB101 Visual Communication

KIB102 Visual Interactions

INB345 Mobile Devices

INB386 Advanced Multimedia Systems

KIB309 Embodied Interactions

KIB230 Interface and Information Design

INB385 Multimedia Systems

KIB314 Tangible Media

### Game Design

INB280 Fundamentals of Game Design

INB272 Interaction Design

KIB201 Concept Development for Game Design and Interactive Media

KIB202 Enabling Immersion

INB282 Games Level Design

DEB103 Visualisation 1

INB281 Advanced Game Design

KIB214 Design for Interactive Media

### Software Technologies\*

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

INB270 Programming

MAB281 Mathematics for Computer Graphics

INB210 Databases

INB250 Computer Architectures and Systems

INB370 Software Development

INB371 Data Structures and Algorithms

INB381 Modelling and Animation Techniques

INB382 Real Time Rendering Techniques

OR

INB383 AI for Games

### Course structure - Major in Biochemistry

#### Year 1, Semester 1

SCB111 Chemistry 1

SCB112 Cellular Basis of Life

#### Year 1, Semester 2 (Life Sciences Pre-Major Strand)

SCB120 Plant and Animal Physiology

SCB121 Chemistry 2

#### Year 2, Semester 1

SCB110 Science Concepts and Global Systems

Plus either:

MAB101 Statistical Data Analysis 1

Or

MAB105 Preparatory Mathematics

#### Year 2, Semester 2

SCB122 Cell and Molecular Biology

SCB123 Physical Science Applications

#### Year 3, Semester 1

LQB381 Biochemistry: Structure and Function

LQB383 Molecular and Cellular Regulation

#### Year 3, Semester 2

LQB481 Biochemical Pathways and Metabolism

LQB483 Molecular Biology Techniques

#### Year 4, Semester 1

LQB581 Functional Biochemistry

LQB582 Biomedical Research Technologies

#### Year 4, Semester 2

LQB681 Biochemical Research Skills

LQB682 Protein Biochemistry and Bioengineering

### Course structure - Major in Biotechnology

#### Year 1, Semester 1

SCB111 Chemistry 1

SCB112 Cellular Basis of Life

#### Year 1, Semester 2 (Life Sciences Pre-Major Strand)

SCB120 Plant and Animal Physiology

SCB121 Chemistry 2

#### Year 2, Semester 1

SCB110 Science Concepts and Global Systems

Plus either:

MAB101 Statistical Data Analysis 1

Or

MAB105 Preparatory Mathematics

#### Year 2, Semester 2

SCB122 Cell and Molecular Biology

SCB123 Physical Science Applications

#### Year 3, Semester 1

LQB381 Biochemistry: Structure and Function

LQB383 Molecular and Cellular Regulation

#### Year 3, Semester 2

LQB483 Molecular Biology Techniques

LQB484 Introduction to Genomics and Bioinformatics

**Year 4, Semester 1**

TWO units selected from:

LQB583	Genetic Research Technology
LQB584	Medical Cell Biology
LQB585	Plant Genetic Manipulation

**Year 4, Semester 2**

TWO units selected from:

LQB682	Protein Biochemistry and Bioengineering
LQB684	Medical Biotechnology
LQB685	Plant Microbe Interactions

**Course structure - Major in Chemistry**

**Year 1, Semester 1**

SCB111	Chemistry 1
	Plus either:
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

**Year 1, Semester 2 (Chemistry Pre-Major Strand)**

SCB112	Cellular Basis of Life
SCB121	Chemistry 2

**Year 2, Semester 1**

MAB120	Algebra and Calculus
SCB110	Science Concepts and Global Systems

**Year 2, Semester 2**

SCB123	Physical Science Applications
SCB131	Experimental Chemistry

**Year 3, Semester 1**

PQB312	Analytical Chemistry For Scientists and Technologists
PQB331	Structure and Bonding

**Year 3, Semester 2**

PQB401	Reaction Kinetics, Thermodynamics and Mechanisms
PQB442	Chemical Spectroscopy

**Year 4, Semester 1**

PQB502	Advanced Physical Chemistry
PQB531	Organic Mechanisms and Synthesis

**Year 4, Semester 2**

PQB631	Advanced Inorganic Chemistry
PQB642	Chemical Research

**Course structure - Major in Ecology**

**Year 1, Semester 1**

SCB111	Chemistry 1
SCB112	Cellular Basis of Life

**Year 1, Semester 2 (Ecology and Environmental Science Pre-Major Strand)**

SCB120	Plant and Animal Physiology
SCB122	Cell and Molecular Biology

**Year 2, Semester 1**

SCB110	Science Concepts and Global Systems
	Plus either:
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

**Year 2, Semester 2**

NQB201	Planet Earth
NQB202	History of Life on Earth

**Year 3, Semester 1**

NQB302	Earth Surface Systems
NQB321	Ecology

**Year 3, Semester 2**

NQB421	Experimental Design
NQB422	Genetics and Evolution

**Year 4, Semester 1**

NQB521	Population Genetics and Molecular Ecology
NQB523	Population Management

**Year 4, Semester 2**

NQB622	Conservation Biology
NQB623	Ecological Systems

**Course structure - Major in Environmental Science**

**Year 1, Semester 1**

SCB111	Chemistry 1
SCB112	Cellular Basis of Life

**Year 1, Semester 2 (Ecology and Environmental Science Pre-Major Strand)**

SCB120	Plant and Animal Physiology
SCB121	Chemistry 2

**Year 2, Semester 1**

SCB110	Science Concepts and Global Systems
	Plus either:
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

**Year 2, Semester 2**

NQB202 History of Life on Earth  
SCB123 Physical Science Applications

## Year 3, Semester 1

NQB302 Earth Surface Systems  
NQB321 Ecology

## Year 3, Semester 2

NQB403 Soils and the Environment  
NQB421 Experimental Design

## Year 4, Semester 1

NQB501 Environmental Modelling  
NQB502 Field Methods in Natural Resource Sciences

## Year 4, Semester 2

NQB601 Sustainable Environmental Management  
NQB602 Environmental Chemistry

### Course structure - Major in Forensic Science

## Year 1, Semester 1

SCB111 Chemistry 1  
SCB112 Cellular Basis of Life

## Year 1, Semester 2 (Forensic Science Pre-Major Strand)

SCB121 Chemistry 2  
SCB122 Cell and Molecular Biology

## Year 2, Semester 1

SCB110 Science Concepts and Global Systems  
Plus either:  
MAB101 Statistical Data Analysis 1  
Or  
MAB105 Preparatory Mathematics

## Year 2, Semester 2

SCB123 Physical Science Applications  
SCB131 Experimental Chemistry

## Year 3, Semester 1

LQB383 Molecular and Cellular Regulation  
SCB384 Forensic Sciences - From Crime Scene to Court

## Year 3, Semester 2

JSB979 Forensic Scientific Evidence  
PQB312 Analytical Chemistry For Scientists and Technologists

## Year 4, Semester 1

PQB513 Instrumental Analysis  
PQB584 Forensic Physical Evidence

## Year 4, Semester 2

LQB680 Forensic DNA Profiling  
PQB684 Forensic Analysis

### Course structure - Major in Geoscience

## Year 1, Semester 1

SCB111 Chemistry 1  
SCB112 Cellular Basis of Life

## Year 1, Semester 2 (Geoscience Pre-Major Strand)

NQB201 Planet Earth  
SCB123 Physical Science Applications

## Year 2, Semester 1

SCB110 Science Concepts and Global Systems  
Plus either:  
MAB101 Statistical Data Analysis 1  
Or  
MAB105 Preparatory Mathematics

## Year 2, Semester 2

NQB202 History of Life on Earth  
SCB222 Exploration of the Universe

## Year 3, Semester 1

NQB311 Mineralogy  
NQB314 Sedimentary Geology

## Year 3, Semester 2

NQB411 Petrology of Igneous and Metamorphic Rocks  
NQB412 Structural Geology and Field Methods

## Year 4, Semester 1

NQB502 Field Methods in Natural Resource Sciences  
NQB513 Geophysics

## Year 4, Semester 2

NQB613 Plate Tectonics  
NQB615 Geochemistry

### Course structure - Major in Microbiology

## Year 1, Semester 1

SCB111 Chemistry 1  
SCB112 Cellular Basis of Life

## Year 1, Semester 2 (Life Sciences Pre-Major Strand)

SCB120 Plant and Animal Physiology  
SCB121 Chemistry 2

## Year 2, Semester 1

SCB110 Science Concepts and Global Systems  
Plus either:



MAB101 Statistical Data Analysis 1

Or

MAB105 Preparatory Mathematics

**Year 2, Semester 2**

SCB122 Cell and Molecular Biology

SCB123 Physical Science Applications

**Year 3, Semester 1**

LQB381 Biochemistry: Structure and Function

LQB386 Microbial Structure and Function

**Year 3, Semester 2**

LQB483 Molecular Biology Techniques

LQB486 Clinical Microbiology 1

**Year 4, Semester 1**

LQB586 Clinical Microbiology 2

LQB587 Applied Microbiology 1: Water, Air and Soil

**Year 4, Semester 2**

LQB686 Microbial Technology and Immunology

LQB687 Applied Microbiology 2: Food and Quality Assurance

**Course structure - Major in Physics**

**Year 1, Semester 1**

MAB121 Calculus and Differential Equations

Or

MAB120 Algebra and Calculus

SCB111 Chemistry 1

Students who have completed only Maths B are required to take MAB120. Students who have completed both Maths B and Maths C should take MAB121.

**Year 1, Semester 2 (Physics Pre-Major Strand)**

MAB122 Algebra and Analytic Geometry

PQB250 Mechanics and Electromagnetism

**Year 2, Semester 1**

SCB110 Science Concepts and Global Systems

SCB112 Cellular Basis of Life

**Year 2, Semester 2**

MAB220 Computational Mathematics 1

Or

MAB121 Calculus and Differential Equations

PQB251 Waves and Optics

**Year 3, Semester 1**

MAB311 Advanced Calculus

PQB350 Thermodynamics of Solids and Gases

**Year 3, Semester 2**

PQB450 Energy, Fields and Radiation

PQB451 Electronics and Instrumentation

**Year 4, Semester 1**

PQB550 Quantum and Condensed Matter Physics

PQB551 Physical Analytical Techniques

**Year 4, Semester 2**

PQB650 Advanced Theoretical Physics

PQB651 Experimental Physics

**Potential Careers:**

Air Traffic Controller, Analytical Chemist, Astrophysicist, Biochemist, Biologist, Biotechnologist, Chemist, Chemist Industrial, Coastal Scientist, Conservation Biologist, Ecologist, Environmental Scientist, Exploration Geologist, Forensic Biologist, Forensic Chemist, Forensic Scientist, Geologist, Geophysicist, Geoscientist, Health Physicist, Hydrogeologist, Immunologist, Laboratory Technician (Chemistry), Marine Scientist, Medical Biotechnologist, Medical Physicist, Microbiologist, Mine Geologist, Molecular Biologist, Natural Resource Scientist, Pharmaceutical Research Scientist, Physicist, Plant Biotechnologist, Population Ecologist, Research and Development Chemist, Virologist.

## Bachelor of Fine Arts (Interactive and Visual Design) / Bachelor of Information Technology (IX69)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 064812A

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$3,300 (indicative) per semester

**International Fees (indicative):** 2011: \$10,500 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 409612

**Past rank cut-off:** 86

**Past OP cut-off:** 8

**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:** 384

**Course coordinator:** Head, Undergraduate Studies (Creative Industries); Mr Mike Roggenkamp (Science and Technology)

**Discipline coordinator:** Mr Gavin Sade (Interactive and Visual Design)

**Campus:** Gardens Point and Kelvin Grove

### Course Overview

Interactive and visual design is at the cutting edge of technological applications of creativity. You will complement your information technology degree with a fine arts major (14 studio units) and have a broad creative industries perspective from two foundation units.

This degree equips you to build and apply creative, innovative IT solutions across diverse industries. A hands-on, real-world-based curriculum gives you the opportunity to explore a wide range of areas within the two strands of this degree, and gain deep understanding within your specialty area.

You will be able to gain entrepreneurial skills if you wish to learn how to develop an idea into a commercial opportunity. You learn to harness your creativity and people skills to maximise the impact of your technical know-how in the booming IT marketplace.

### Career Outcomes

This double degree will set you up for a career in the rapidly expanding fields of contemporary communication and the application of new media technologies.

### Professional Recognition

This course is accredited by the Australian Computer Society (ACS). ACS accreditation is internationally recognised by the Seoul Accord.

### Study Areas

The Bachelor of Information Technology will not have nominated majors and minors and consequently there will not be a Study Area A shown on a graduate's parchment. Instead, it will have specialisations. The specialisation areas that will be available for students will include:

- Business Process Management
- Data Warehousing
- Digital Environments
- Enterprise Systems
- Information Management
- Network Systems
- Software Engineering
- Web Technologies

### Course Structure

This course is made up of 384 credit points. Each component (i.e. Information Technology, and Interactive and Visual Design) comprises 192 credit points.

### 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.

### Pathways to Further Studies

In 2001, an accelerated Honours program was introduced to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of their a BIT degree (or double degree) which would be counted both for completion of the degree and towards the Honours program. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete a BIT degree (or double degree) with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

### Cooperative Education

The Faculty of Science and Technology's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your 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. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

## Why choose this course?

With its emphasis on creative and experimental approaches to design for new technologies, this course will take you beyond vocational design courses. You will gain an understanding of established design principles and technical skills. Our studio approach will also support you to develop a strong conceptual understanding of design innovation, which you will apply through exploration in a choice of media and technologies.

You will develop creative approaches to designing visual and interactive media through your studio work. You will specialise your design interests in the areas of graphic design or interaction design for physical computing.

You can also complement your design studies with options in 3D computer graphics, film production, visual arts, sound design, game design, information technology or business to diversify your employment options.

You will build a portfolio of individual design practice, as well as experiencing industry-based, interdisciplinary team projects, which you can consolidate through research opportunities and industry placements.

## Further Information

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

### Science and Technology Coordinator

Richard Thomas

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

### Creative Industries Coordinator

Phone +61 7 3138 8114

Fax +61 7 3138 8116

Email: creativeindustries@qut.edu.au

## OP Guarantee

The OP Guarantee will apply to this course from 2012 onwards.

## Course structure for students who commenced in 2011

### Notes

From year 2, students are recommended to take one of the following pathways:

\* Visual Communication (comprising KIB230, KVB204, KIB335 and KIB338); OR

\* Interactive Media Design (comprising KKB216, KIB205, KIB309 and KIB314)

### Year 1, Semester 1

INB101	Impact of IT
INB102	Emerging Technology
KIB103	Introduction to Web Design and Development
KKB101	Creative Industries: People and Practices

### Year 1, Semester 2

INB103	Industry Insights
INB104	Building IT Systems
KIB101	Visual Communication
KKB102	Creative Industries: Making Connections

### Year 2, Semester 1

	IT Breadth Option Unit
	IT Breadth Option Unit
KIB104	Digital Media
KVB105	Drawing for Design

### Year 2, Semester 2

	IT Breadth Option Unit
	IT Breadth Option Unit
KIB102	Visual Interactions
KIB105	Animation and Motion Graphics

### Year 3, Semester 1

INB201	Scalable Systems Development
	IT Specialist Option Unit
KIB214	Design for Interactive Media
SELECT	Either KIB230 or KKB216:
KIB230	Interface and Information Design
KKB216	Graphical Development Environments for Media Interaction

### Year 3, Semester 2

INB300	Professional Practice in IT
	IT Specialist Option Unit
KIB216	Advanced Web Design
SELECT	Either KIB205 or KVB204:
KIB205	Programming for Visual Designers and Artists
KVB204	Graphic Design

### Year 4, Semester 1

INB301	The Business of IT
	IT Specialist Option Unit
KIB315	Contemporary Issues in Digital Media
SELECT	Either KIB309 or KIB335:
KIB309	Embodied Interactions
KIB335	Typography and Illustration

### Year 4, Semester 2

INB302	IT Capstone Project
	IT Specialist Option Unit
KIB322	Design Project
SELECT	Either KIB314 or KIB338:
KIB314	Tangible Media
KIB338	Print Media

## Course structure for students who commenced in 2010

## Notes

From year 2, students are recommended to take one of the following pathways:

\* Visual Communication (comprising KIB230, KVB204, KIB335 and KIB338); OR

\* Interactive Media Design (comprising KKB216, KIB205, KIB309 and KIB314)

## Year 1, Semester 1

INB101	Impact of IT
INB102	Emerging Technology
KIB103	Introduction to Web Design and Development
KKB101	Creative Industries: People and Practices

## Year 1, Semester 2

INB103	Industry Insights
INB104	Building IT Systems
KIB101	Visual Communication
KKB102	Creative Industries: Making Connections

## Year 2, Semester 1

	IT Breadth Option Unit
	IT Breadth Option Unit
KIB104	Digital Media
KVB105	Drawing for Design

## Year 2, Semester 2

	IT Breadth Option Unit
	IT Breadth Option Unit
KIB102	Visual Interactions
KIB105	Animation and Motion Graphics

## Year 3, Semester 1

INB201	Scalable Systems Development
	IT Specialist Option Unit
KIB214	Design for Interactive Media
SELECT	Either KIB230 or KKB216:
KIB230	Interface and Information Design
KKB216	Graphical Development Environments for Media Interaction

## Year 3, Semester 2

INB300	Professional Practice in IT
	IT Specialist Option Unit
KIB216	Advanced Web Design
SELECT	Either KIB205 or KVB204:
KIB205	Programming for Visual Designers and Artists
KVB204	Graphic Design

## Year 4, Semester 1

INB301	The Business of IT
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IT Specialist Option Unit

KIB315	Contemporary Issues in Digital Media
SELECT	Either KIB309 or KIB335:
KIB309	Embodied Interactions
KIB335	Typography and Illustration

## Year 4, Semester 2

INB302	IT Capstone Project
	IT Specialist Option Unit
KIB322	Design Project
SELECT	Either KIB314 or KIB338:
KIB314	Tangible Media
KIB338	Print Media

## Course structure for students who commenced in 2009

## Notes

From year 2, students are recommended to take one of the following pathways:

\* Visual Communication (comprising KIB230, KVB204, KIB335 and KIB338); OR

\* Interactive Media Design (comprising KKB216, KIB205, KIB309 and KIB314)

## Year 1, Semester 1

INB101	Impact of IT
INB102	Emerging Technology
KIB101	Visual Communication
KKB101	Creative Industries: People and Practices

## Year 1, Semester 2

INB103	Industry Insights
INB104	Building IT Systems
KIB103	Introduction to Web Design and Development
KKB102	Creative Industries: Making Connections

## Year 2, Semester 1

	IT Breadth Option Unit
	IT Breadth Option Unit
KIB104	Digital Media
KVB105	Drawing for Design

## Year 2, Semester 2

	IT Breadth Option Unit
	IT Breadth Option Unit
KIB102	Visual Interactions
KIB105	Animation and Motion Graphics

## Year 3, Semester 1

INB201	Scalable Systems Development
	IT Specialist Option Unit
KIB214	Design for Interactive Media

SELECT	Either KIB230 or KKB216:
KIB230	Interface and Information Design
KKB216	Graphical Development Environments for Media Interaction

## Year 3, Semester 2

INB300	Professional Practice in IT IT Specialist Option Unit
KIB216	Advanced Web Design
SELECT	Either KIB205 or KVB204:
KIB205	Programming for Visual Designers and Artists
KVB204	Graphic Design

## Year 4, Semester 1

INB301	The Business of IT IT Specialist Option Unit
KIB315	Contemporary Issues in Digital Media
SELECT	Either KIB309 or KIB335:
KIB309	Embodied Interactions
KIB335	Typography and Illustration

## Year 4, Semester 2

INB302	IT Capstone Project IT Specialist Option Unit
KIB322	Design Project
SELECT	Either KIB314 or KIB338:
KIB314	Tangible Media
KIB338	Print Media

## IT Breadth Option Unit List

### IT Breadth Option Units

You must complete four (4) units from the following list. You should not commence these units until you have completed INB101, INB102, INB103 and INB104.

INB120	Corporate Systems
INB210	Databases
INB220	Business Analysis
INB250	Foundations of Computer Science
INB251	Networks
INB255	Security
INB270	Programming
INB271	The Web
INB272	Interaction Design

## IT Specialisation Option Unit List

### IT Specialist Option Units

You must complete four (4) units from the following list. Please ensure you have completed a minimum of 36 credit points (3 units) of IT Breadth Option Units before commencing these units. The units are

	grouped in areas to assist you in focusing your studies.
1.	BUSINESS PROCESS MANAGEMENT:
INB320	Business Process Modelling
INB321	Business Process Management
INB322	Information Systems Consulting
INB123	Project Management Practice
2.	DATA WAREHOUSING:
INB340	Database Design
INB341	Software Development With Oracle
INB342	Enterprise Data Mining and Data Analysis
INB343	Advanced Data Mining and Data Warehousing
INB344	Search Engine Technology
3.	DIGITAL ENVIRONMENTS:
INB345	Mobile Devices
INB346	Enterprise 2.0
INB347	Web 2.0 Applications
INB335	Information Resources
4.	ENTERPRISE SYSTEMS:
INB123	Project Management Practice
INB221	Technology Management
INB311	Enterprise Systems
INB312	Enterprise Systems Applications
5.	NETWORK SYSTEMS:
INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB353	Wireless and Mobile Networks
6.	SOFTWARE ENGINEERING:
INB370	Software Development
INB371	Data Structures and Algorithms
INB372	Agile Software Development
INB374	Enterprise Software Architecture
7.	WEB TECHNOLOGIES:
INB313	Electronic Commerce Site Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems
8.	UNGROUPE:
INB204	Special Topic 1
INB205	Special Topic 2
INB304	Special Topic 3
INB305	Special Topic 4
INB306	Project 1
INB307	Project 2
INB308	Project 3
INB355	Cryptology and Protocols



INB365	Systems Programming
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques
INB860	Computational Intelligence for Control and Embedded Systems

**Potential Careers:**

Academic, Advertising Professional, Animator, Computer Game Programmer, Computer Games Developer, Digital Composer, Government Officer, Information Officer, Information Security Specialist, Internet Professional, Marketing Officer/Manager, Media Industry Specialist, Multimedia Designer, Organisational Communication Specialist, Post-production specialist, Publishing Professional, Technical Officer, Web Designer.

## Bachelor of Applied Science / Bachelor of Laws (IX72)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 066294B

**Course duration (full-time):** 5.5 years

**Domestic fees (indicative):** 2011: CSP \$3,631 (indicative) per semester

**International Fees (indicative):** 2011: \$11,500 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419712

**Past rank cut-off:** 92

**Past OP cut-off:** 5

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 528

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr Perry Hartfield (Science and Technology); Dr Bill Dixon (Law)

**Discipline coordinator:** Dr Perry Hartfield (Biochemistry Major); Dr Marion Bateson (Biotechnology Major); Dr John McMurtrie (Chemistry Major); Dr Ian Williamson (Ecology Major); Dr Robin Thwaites (Environmental Science Major); Dr Emad Kiriakous (Forensic Science Major); Dr Gary Huftile (Geoscience Major); Dr Christine Knox (Microbiology Major); Dr Greg Michael (Physics Major)

**Campus:** Gardens Point

### Course Overview

Students choose the Bachelor of Applied Science/Bachelor of Laws in order to give themselves flexibility in career choices.

You will graduate with a wide variety of skills, such as analytical and writing skills, that can be applied in both a science and/ or legal profession. Combining these two disciplines means you can enhance your career prospects by specialising in a particular field of knowledge related to science and law, using your scientific knowledge in a law field, or by applying your legal knowledge to an area of science.

### Career Outcomes

As a graduate, you may enter legal practice with an education in both the content and process of science and data analysis. This will enable you to deal with the complexities of litigation that have a scientific and technological dimension, such as inventions, trade secrets, quantitative evidence, genetic modification and constitution disputes giving rise to environmental issues. On the other hand, you may choose to follow a career path in the sciences, enhancing opportunities in a particular discipline such as environmental science or biotechnology through your knowledge of the law.

### Professional Recognition

Graduates will satisfy the requirements for membership in the relevant professional body for their science major. See Studyfinder for details on the Bachelor of Applied Science majors.

At the end of your Law degree you will have completed the necessary units for admission to legal practice in Australia. To become a practising lawyer you will need to complete further practical legal training (e.g. Graduate Diploma in Legal Practice) and then apply for admission.

### Course Design

The course is designed to cover all major areas of the law as well as allowing students to choose any of the following science majors that are offered in the Bachelor of Applied Science (SC01) course: biochemistry, biotechnology, chemistry, ecology, environmental science, forensic science, geoscience, microbiology and physics.

To complete the double degree in a shorter period of time, the co-major will be taken from the law program therefore it is not possible for students to choose any of the co-majors listed under the Bachelor of Applied Science course.

### Further Information

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

#### Science Coordinator

Dr Perry Hartfield

Phone: +61 7 3138 2984

Email: [p.hartfield@qut.edu.au](mailto:p.hartfield@qut.edu.au)

#### Law Coordinator

Dr Bill Dixon

Phone: +61 7 3138 2707

### Discipline Coordinators

#### Biochemistry

Dr Perry Hartfield

Phone: +61 7 3138 2984

Email: [p.hartfield@qut.edu.au](mailto:p.hartfield@qut.edu.au)

#### Biotechnology

Dr Marion Bateson

Phone: +61 7 3138 1269

Email: [m.bateson@qut.edu.au](mailto:m.bateson@qut.edu.au)

#### Chemistry

Dr John McMurtrie

Phone: +61 7 3138 1220

Email: [j.mcmurtrie@qut.edu.au](mailto:j.mcmurtrie@qut.edu.au)

#### Ecology

Dr Ian Williamson

Phone: +61 7 3138 2779

Email: [i.williamson@qut.edu.au](mailto:i.williamson@qut.edu.au)

#### Environmental Science

Dr Robin Thwaites

Phone: +61 7 3138 2400  
Email: r.thwaites@qut.edu.au

## **Forensic Science**

Dr Emad Kiriakous  
Phone: +61 7 3138 2501  
Email: e.kiriakous@qut.edu.au

## **Geoscience**

Dr Gary Huftile  
Phone: +61 7 3138 4470  
Email: g.huftile@qut.edu.au

## **Microbiology**

Dr Christine Knox  
Phone: +61 7 3138 2301  
Email: c.knox@qut.edu.au

## **Physics**

Dr Greg Michael  
Phone: +61 7 3138 1584  
Email: g.michael@qut.edu.au

## **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.

## **Law School Electives Information**

Students who are enrolled in LW34 (straight law undergraduate entry) are required to undertake two contextual electives in the first year of their degree (one in each semester). Contextual electives may also be undertaken by any student as an ordinary elective within their degree. The contextual electives are:

- LWB142 Law Society and Justice
- LWB144 Law and Global Perspectives
- LWB149 Indigenous Legal Issues
- LWB150 Lawyering and Dispute Resolution.

Students who are enrolled in any of the law double degrees commence their law electives in the second semester of their second year.

Students who are enrolled in LW35 (Graduate Entry) commence their law electives in first semester of their second year.

Law students other than Graduate Entry students can undertake 4 non-law units as electives within their law degree. Students may be particularly interested in elective options within the School of Justice which relate to human rights and criminal justice.

## **Graduate Destination Streams**

The Faculty of Law has identified graduate destination streams for students undertaking a law or law double degree. This means that, as students learn more throughout their degree, they can choose their elective units in the areas of law in which they become interested. Students are

not restricted to choose electives from a single stream; the streams are only to provide guidance to students in making their elective choices.

- Legal Practice
- General Legal Practice (work as a lawyer across a wide range of different legal areas)
- Specialist Legal Practice (work as a lawyer specialising in a particular area of the law, such as property law, family law or corporate law)
- Advocacy and Dispute Resolution (acting for clients in court or resolving disputes through negotiation and mediation processes)
- Public Sector (work as a lawyer in a government department)
- Private Enterprise (for those students not wanting to practise as a lawyer, but perhaps work within business management, human resources, information technology etc)

As students progress towards the end of their degrees there are more opportunities to participate in subjects where they engage in 'real world learning', for example, working within law firms and government departments in placement electives.

## **Course structure - Law**

### **Year 1, Semester 1**

LWB145 Legal Foundations A  
LWB147 Torts A

### **Year 1, Semester 2**

LWB146 Legal Foundations B  
LWB148 Torts B

### **Year 2, Semester 1**

LWB136 Contracts A  
LWB238 Fundamentals of Criminal Law

### **Year 2, Semester 2**

LWB137 Contracts B  
LWB239 Criminal Responsibility

### **Year 3, Semester 1**

LWB240 Principles of Equity  
LWB243 Property Law A

### **Year 3, Semester 2**

LWB241 Trusts  
LWB244 Property Law B

### **Year 4, Semester 1**

LWB242 Constitutional Law  
LWB432 Evidence

### **Year 4, Semester 2**

LWB334 Corporate Law  
Law Elective

## Year 5, Semester 1

LWB335	Administrative Law
LWB431	Civil Procedure
	Law Elective
	Law Elective

## Year 5, Semester 2

LWB433	Professional Responsibility
	Law Elective
	Law Elective
	Law Elective

## Year 6, Semester 1

Law Elective
Law Elective
Law Elective
Law Elective

## Law Electives

Further information regarding Law Electives can be found at:  
<http://www.law.qut.edu.au/study/courses/ugrad/lselect.jsp>.

## Transitional notes for students who have transferred from IF39 to IX72:

- \* LWB142 and LWB144 are now law contextual elective units.
- \* LWB145 Legal Foundations A was LWB141 Legal Institutions and Method.
- \* LWB146 Legal Foundations B was LWB143 Legal Research and Writing (prerequisite LWB141).
- \* LWB147 Torts A was LWB138 Fundamentals of Torts.
- \* LWB148 Torts B was LWB139 Select Issues in Torts (prerequisite LWB138).
- \* LWB242 Constitutional Law was LWB231 Introduction to Public Law and LWB235 Australian Federal Constitutional Law.
- \* LWB243 Property Law was LWB236 Real Property A (prerequisite LWB143 & LWB240).
- \* LWB244 Property Law B was LWB237 Real Property B (prerequisite LWB236).
- \* LWB333 Theories of Law is now an elective unit.
- \* LWB335 Administrative Law was LWB331 Administrative is now (prerequisite LWB231).
- \* LWB434 Advanced Research and Legal Reasoning is now LWB435 Legal Research in Practice (prerequisite LWB143/LWB145) and it is now an elective unit.
- \* Due to the restructure of the law course and the changes to the units required for admission purposes, the total number of elective units that students will be permitted to undertake will vary depending on the year of commencement and the number of units completed to date.

If you have not followed the standard course structure up to this point in time or are uncertain as to the correct number of electives available please contact the Law School Enquiries on (07)3138 2707 or email: [law\\_enquiries@qut.edu.au](mailto:law_enquiries@qut.edu.au).

## Course structure - Major in Biochemistry

### Year 1, Semester 1

SCB112	Cellular Basis of Life
	Either
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

### Year 1, Semester 2 (Life Sciences Pre-Major Strand)

SCB120	Plant and Animal Physiology
SCB122	Cell and Molecular Biology

### Year 2, Semester 1

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1

### Year 2, Semester 2

SCB123	Physical Science Applications
SCB121	Chemistry 2

### Year 3, Semester 1

LQB381	Biochemistry: Structure and Function
LQB383	Molecular and Cellular Regulation

### Year 3, Semester 2

LQB481	Biochemical Pathways and Metabolism
LQB483	Molecular Biology Techniques

### Year 4, Semester 1

LQB581	Functional Biochemistry
LQB582	Biomedical Research Technologies

### Year 4, Semester 2

LQB681	Biochemical Research Skills
LQB682	Protein Biochemistry and Bioengineering

## Course structure - Major in Biotechnology

### Year 1, Semester 1

SCB112	Cellular Basis of Life
	Either
MAB101	Statistical Data Analysis 1
	Or
MAB105	Preparatory Mathematics

### Year 1, Semester 2 (Life Sciences Pre-Major Strand)

SCB120	Plant and Animal Physiology
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# FACULTY OF SCIENCE AND TECHNOLOGY

SCB122 Cell and Molecular Biology

PQB331 Structure and Bonding

## Year 2, Semester 1

SCB110 Science Concepts and Global Systems

SCB111 Chemistry 1

## Year 2, Semester 2

SCB123 Physical Science Applications

SCB121 Chemistry 2

## Year 3, Semester 1

LQB381 Biochemistry: Structure and Function

LQB383 Molecular and Cellular Regulation

## Year 3, Semester 2

LQB483 Molecular Biology Techniques

LQB484 Introduction to Genomics and Bioinformatics

## Year 4, Semester 1

Select TWO units from:

LQB583 Genetic Research Technology

LQB584 Medical Cell Biology

LQB585 Plant Genetic Manipulation

## Year 4, Semester 2

Select TWO units from:

LQB682 Protein Biochemistry and Bioengineering

LQB684 Medical Biotechnology

LQB685 Plant Microbe Interactions

## Course structure - Major in Chemistry

### Year 1, Semester 1

SCB112 Cellular Basis of Life

Either

MAB101 Statistical Data Analysis 1

Or

MAB105 Preparatory Mathematics

### Year 1, Semester 2 (Chemistry Pre-Major Strand)

MAB120 Algebra and Calculus

SCB123 Physical Science Applications

### Year 2, Semester 1

SCB110 Science Concepts and Global Systems

SCB111 Chemistry 1

### Year 2, Semester 2

SCB121 Chemistry 2

SCB131 Experimental Chemistry

### Year 3, Semester 1

PQB312 Analytical Chemistry For Scientists and Technologists

## Year 3, Semester 2

PQB401 Reaction Kinetics, Thermodynamics and Mechanisms

PQB442 Chemical Spectroscopy

## Year 4, Semester 1

PQB502 Advanced Physical Chemistry

PQB531 Organic Mechanisms and Synthesis

## Year 4, Semester 2

PQB631 Advanced Inorganic Chemistry

PQB642 Chemical Research

## Course structure - Major in Ecology

### Year 1, Semester 1

SCB112 Cellular Basis of Life

Either

MAB101 Statistical Data Analysis 1

Or

MAB105 Preparatory Mathematics

### Year 1, Semester 2 (Ecology and Environmental Science Pre-Major Strand)

NQB201 Planet Earth

SCB120 Plant and Animal Physiology

### Year 2, Semester 1

SCB110 Science Concepts and Global Systems

SCB111 Chemistry 1

### Year 2, Semester 2

SCB121 Chemistry 2

Or

SCB122 Cell and Molecular Biology

Or

SCB123 Physical Science Applications

Plus

NQB202 History of Life on Earth

### Year 3, Semester 1

NQB321 Ecology

Plus either

NQB322 Invertebrate Biology

Or

NQB323 Plant Biology

### Year 3, Semester 2

NQB421 Experimental Design

NQB422 Genetics and Evolution



## Year 4, Semester 1

NQB521	Population Genetics and Molecular Ecology
NQB523	Population Management

## Year 4, Semester 2

NQB622	Conservation Biology
NQB623	Ecological Systems

### Course structure - Major in Environmental Science

## Year 1, Semester 1

SCB112	Cellular Basis of Life Either
MAB101	Statistical Data Analysis 1 Or
MAB105	Preparatory Mathematics

## Year 1, Semester 2 (Ecology and Environmental Science Pre-Major Strand)

NQB202	History of Life on Earth
SCB120	Plant and Animal Physiology

## Year 2, Semester 1

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1

## Year 2, Semester 2

SCB123	Physical Science Applications
SCB121	Chemistry 2

## Year 3, Semester 1

NQB302	Earth Surface Systems
NQB321	Ecology

## Year 3, Semester 2

NQB403	Soils and the Environment
NQB421	Experimental Design

## Year 4, Semester 1

NQB501	Environmental Modelling
NQB502	Field Methods in Natural Resource Sciences

## Year 4, Semester 2

NQB601	Sustainable Environmental Management
NQB602	Environmental Chemistry

### Course structure - Major in Forensic Science

## Year 1, Semester 1

SCB112	Cellular Basis of Life Either
MAB101	Statistical Data Analysis 1 Or

MAB105	Preparatory Mathematics
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## Year 1, Semester 2 (Forensic Science Pre-Major Strand)

SCB122	Cell and Molecular Biology
SCB123	Physical Science Applications

## Year 2, Semester 1

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1

## Year 2, Semester 2

SCB121	Chemistry 2
SCB131	Experimental Chemistry

## Year 3, Semester 1

LQB383	Molecular and Cellular Regulation
SCB384	Forensic Sciences - From Crime Scene to Court

## Year 3, Semester 2

JSB979	Forensic Scientific Evidence
PQB312	Analytical Chemistry For Scientists and Technologists

## Year 4, Semester 1

PQB513	Instrumental Analysis
PQB584	Forensic Physical Evidence

## Year 4, Semester 2

LQB680	Forensic DNA Profiling
PQB684	Forensic Analysis

### Course structure - Major In Geoscience

## Year 1, Semester 1

SCB110	Science Concepts and Global Systems Either
MAB101	Statistical Data Analysis 1 Or
MAB105	Preparatory Mathematics

## Year 1, Semester 2 (Geoscience Pre-Major Strand)

NQB201	Planet Earth
SCB222	Exploration of the Universe

## Year 2, Semester 1

SCB112	Cellular Basis of Life
SCB111	Chemistry 1

## Year 2, Semester 2

SCB123	Physical Science Applications
NQB202	History of Life on Earth

## Year 3, Semester 1

NQB311	Mineralogy
NQB314	Sedimentary Geology

## Year 3, Semester 2

NQB411	Petrology of Igneous and Metamorphic Rocks
NQB412	Structural Geology and Field Methods

## Year 4, Semester 1

NQB502	Field Methods in Natural Resource Sciences
NQB513	Geophysics

## Year 4, Semester 2

NQB614	Groundwater Systems
NQB615	Geochemistry

## Course structure - Major in Microbiology

### Year 1, Semester 1

SCB112	Cellular Basis of Life Either
MAB101	Statistical Data Analysis 1 Or
MAB105	Preparatory Mathematics

### Year 1, Semester 2 (Life Sciences Pre-Major Strand)

SCB120	Plant and Animal Physiology
SCB122	Cell and Molecular Biology

### Year 2, Semester 1

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1

### Year 2, Semester 2

SCB123	Physical Science Applications
SCB121	Chemistry 2

### Year 3, Semester 1

LQB381	Biochemistry: Structure and Function
LQB386	Microbial Structure and Function

### Year 3, Semester 2

LQB483	Molecular Biology Techniques
LQB486	Clinical Microbiology 1

### Year 4, Semester 1

LQB586	Clinical Microbiology 2
LQB587	Applied Microbiology 1: Water, Air and Soil

### Year 4, Semester 2

LQB686	Microbial Technology and Immunology
LQB687	Applied Microbiology 2: Food and Quality Assurance

## Course structure - Major in Physics

### Year 1, Semester 1

SCB110	Science Concepts and Global Systems Either
MAB120	Algebra and Calculus Or
MAB121	Calculus and Differential Equations

Students who have completed only Maths B are required to take MAB120. Students who have completed both Maths B and Maths C should take MAB121.

### Year 1, Semester 2 (Physics Pre-Major Strand)

MAB122	Algebra and Analytic Geometry
PQB250	Mechanics and Electromagnetism

### Year 2, Semester 1

SCB112	Cellular Basis of Life
SCB111	Chemistry 1

### Year 2, Semester 2

MAB121	Calculus and Differential Equations Or
MAB220	Computational Mathematics 1
PQB251	Waves and Optics

### Year 3, Semester 1

MAB311	Advanced Calculus
PQB350	Thermodynamics of Solids and Gases

### Year 3, Semester 2

PQB450	Energy, Fields and Radiation
PQB451	Electronics and Instrumentation

### Year 4, Semester 1

PQB550	Quantum and Condensed Matter Physics
PQB551	Physical Analytical Techniques

### Year 4, Semester 2

PQB650	Advanced Theoretical Physics
PQB651	Experimental Physics

## Bachelor of Laws Elective List - Odd Years Offerings

### Important Information

These offerings are current at time of publication but are subject to change.

The elective interest groups are provided to assist you in choosing electives that align with your career interests. You are not limited to selection from any one group, you can select from a range of elective interest groups.

The offering of elective units is subject to sufficient student enrolment numbers and staff availability.

As a guide, when a unit is offered during the day in one semester, it will be offered during

the evening the next time it is offered and vice versa (subject to staff and room availability and offering a spread of units across day and night in each semester).

Before enrolling in an elective unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual at [https://qutvirtual.qut.edu.au/portal/pls/portal/unout\\_search\\_p.show](https://qutvirtual.qut.edu.au/portal/pls/portal/unout_search_p.show).

All units on this list are offered in internal and external mode unless noted otherwise.

## Semester 1 units:

### Contextual +

LWB142 Law, Society and Justice

### Property and Environmental

LWB485 Environmental Law

### Commercial and Consumer

LWB307 Insolvency Law

LWB364 Introduction to Taxation Law

LWB366 Law of Commercial Entities

### Intellectual Property and Technology

LWB486 Intellectual Property Law

### Human Rights

LWB142 Law, Society and Justice

LWB313 Discrimination & Equal Opportunity Law

LWB309 Succession

### Legal Skills

LWB418 Competition Moots 1

LWB419 Competition Moots 2

Entry for LWB418 and LWB419 is subject to being selected into a team to compete in one of the external mooted competitions that the QUT Law School will enter. Enrolments will be called for at a later date via e-mail.

Internal mode only.

LWB498 Dispute Resolution and Non-adversarial Practice

### Research and Theory

LWB435 Legal Research in Practice

LWB497 Advanced Research Project

Application forms and guidelines can be found at <http://www.law.qut.edu.au/study/forms.jsp> and must be lodged at the Level 4 Reception C Block QUT Gardens Point. Forms must be submitted no later than 2 weeks prior to the commencement of semester

Internal mode only.

### Work Integrated Learning

LWB420 Internship

Any student wishing to undertake this unit in Semester 1 must fill out the registration form available at <http://www.law.qut.edu.au/study/forms.jsp> and lodge it at the Level 4 Reception C Block QUT Gardens Point. This process is to register your interest only. It does not guarantee a place on the enrolment quota list. However, to be eligible for selection for this unit, you must register your interest on this list a selection process will then follow and you will be advised of the outcome by email. No other method of enrolment will be approved or accepted for this unit.

Applications for 2011 have closed

Internal mode only.

## Semester 2 units:

### Contextual +

LWB144 Laws and Global Perspectives

LWB150 Lawyering and Dispute Resolution

LWB149 Indigenous Legal Issues

### Property and Environmental

LWB312 Real Estate Transactions

LWB489 Native Title Law and Practice

### Commercial and Consumer

LWB410 Competition Law

\* see notes below

LWB367 Law of Corporate Governance

\* see notes below

### Intellectual Property and Technology

LWB482 Internet Law

LWB423 Intellectual Property and Technology Law Clinic

Internal mode only.

### Human Rights

LWB149 Indigenous Legal Issues

LWB302 Family Law

LWB308 Australian Employment Law

\* see notes below

LWB483 Medico-Legal Issues

LWB496 Australian and Comparative Human Rights Law

### International

LWB144 Laws and Global Perspectives

LWB406 Fundamentals of Public International Law

LWB407 Private International Law

### Legal Skills

LWB150 Lawyering and Dispute Resolution

**LWB356 Advocacy**  
Any student wishing to undertake this unit must register their name with the Law School by emailing [law\\_enquiries@qut.edu.au](mailto:law_enquiries@qut.edu.au). The number of student enrolments in this unit may be capped. External students are not excluded from undertaking this unit, provided that they are able to meet all attendance requirements. Final year students and students who have not had the opportunity to undertake other skills or work integrated learning units will be given preference.

Block mode only.

**LWB361 Drafting**  
Any student wishing to undertake this unit must register their name with the Law School by emailing [law\\_enquiries@qut.edu.au](mailto:law_enquiries@qut.edu.au). The number of student enrolments in this unit may be capped. External students are not excluded from undertaking this unit, provided that they are able to meet all attendance requirements. Final year students and students who have not had the opportunity to undertake other skills or work integrated learning units will be given preference.

**LWB413 Queensland Parliamentary Internship Program**  
This unit is for final year students only. There is a limited number of internships available and therefore enrolment in this unit is subject to approval by the unit co-ordinator. Interested students should contact John Pyke ([j.pyke@qut.edu.au](mailto:j.pyke@qut.edu.au)). NOTE: Due to complications in the Parliamentary calendar there may be no internships available in 2011. Please contact John Pyke for further information.

Internal mode only.

**LWB418 Competition Moots 1**

**LWB419 Competition Moots 2**

Entry to LWB418 and LWB419 is subject to being selected into a team to compete in one of the external mooting competitions that the QUT Law School will enter.

Internal mode only.

#### Research and Theory

**LWB497 Advanced Research Project**  
Application forms and guidelines can be found at <http://www.law.qut.edu.au/study/forms.jsp> and must be lodged at the Level 4 Reception C Block QUT Gardens Point. Forms must be submitted no later than 2 weeks prior to the commencement of semester.

Internal mode only.

#### Work Integrated Learning

**LWB421 Learning in Professional Practice**  
(Prior to enrolment in LWB421 students must have organised a legal professional placement as set out in the unit outline).

**LWB422 Virtual Law Placement**  
Any student wishing to undertake this unit must register their name with the Law School by emailing [law\\_enquiries@qut.edu.au](mailto:law_enquiries@qut.edu.au).

**LWB456 Legal Clinic (Organised Program)**  
Any student wishing to undertake this unit must register their name with the Law School by emailing [law\\_enquiries@qut.edu.au](mailto:law_enquiries@qut.edu.au).

Internal mode only.

**LWB423 Intellectual Property and Technology Law Clinic**

#### Notes:

+ The units LWB142 Law Society and Justice, LWB149 Indigenous Legal Issues, LWB144 Laws and Global Perspectives and LWB150 Dispute Resolution appear twice as they are contextual elective choices in first year, if you are completing a straight law degree (LW34). They are also elective choices within the various elective interest groups that can be undertaken in any year of your degree.

\*these starred units are alternating units and will generally only be offered in odd years. Alternating units which are generally offered in even years include: LWB333 Theories of Law; LWB459 Commercial & Consumer Law; LWB359 Advanced Taxation Law; LWB463 Immigration & Refugee Law; LWB480 Media Law and LWB494 Principles of Sentencing. The offering of these units will be subject to student demand and staff availability.

For further information on the Work Integrated Learning (Work Placement) units see: <http://www.law.qut.edu.au/about/wil/> and <http://www.law.qut.edu.au/about/wil/faq.jsp>

Restricted Entry Units have quota limits imposed. Although students are able to enrol in these units on-line no places are guaranteed until after the applications are closed.

External students are not excluded from undertaking these units, provided that they are able to meet all the attendance requirements.

### Bachelor of Laws Elective List - Even Years Offerings

#### Important Information

These offerings are current at time of publication but are subject to change.

The elective interest groups are provided to assist you in choosing electives that align with your career interests. You are not limited to selection from any one group, you can select from a range of elective interest groups.

The offering of elective units is subject to sufficient student enrolment numbers and staff availability.

As a guide, when a unit is offered during the day in one semester, it will be offered during the evening the next time it is offered and vice versa (subject to staff and room availability and offering a spread of units across day and night in each semester).

Before enrolling in an elective unit, you must ensure you have met any pre- or co-requisite requirements. You can check this by referring to the unit outlines on QUT Virtual at [https://qutvirtual.qut.edu.au/portal/pls/portal/unout\\_search\\_p.show](https://qutvirtual.qut.edu.au/portal/pls/portal/unout_search_p.show).

All units on this list are offered in internal and

external mode unless noted otherwise.

## Semester 1 units:

### Contextual +

LWB142 Law, Society and Justice

LWB150 Lawyering and Dispute Resolution

### Property and Environmental

LWB485 Environmental Law

### Commercial and Consumer

LWB307 Insolvency Law

LWB364 Introduction to Taxation Law

LWB366 Law of Commercial Entities

LWB459 Commercial and Consumer Law

\* see notes below

### Intellectual Property and Technology

LWB486 Intellectual Property Law

LWB499 Creative Commons Clinic  
(needs restricted entry info)  
Block mode only.

### Human Rights

LWB142 Law, Society and Justice

LWB313 Discrimination & Equal Opportunity Law

LWB309 Succession

LWB460 Sports Law

### Legal Skills

LWB418 Competition Moots 1

LWB419 Competition Moots 2

Entry for LWB418 and LWB419 is subject to being selected into a team to compete in one of the external mooting competitions that the QUT Law School will enter. Enrolments will be called for at a later date via e-mail.

Internal mode only. Closing date for applications: Enrolments will be called for at a later date via e-mail.

LWB498 Dispute Resolution and Non-adversarial Practice

### Research and Theory

LWB435 Legal Research in Practice

LWB497 Advanced Research Project

Application forms and guidelines can be found at <http://www.law.qut.edu.au/study/forms.jsp> and must be lodged at the Level 4 Reception C Block QUT Gardens Point. Forms must be submitted no later than 2 weeks prior to the commencement of semester

Internal mode only. Closing Date for Applications: Forms must be submitted no later than 2 weeks prior to the commencement of semester

LWB333 Theories of Law

\* see notes below

## Work Integrated Learning

LWB420 Internship

Any student wishing to undertake this unit in Semester 1 must fill out the registration form available at <http://www.law.qut.edu.au/study/forms.jsp> and lodge it at the Level 4 Reception C Block QUT Gardens Point. This process is to register your interest only. It does not guarantee a place on the enrolment quota list. However, to be eligible for selection for this unit, you must register your interest on this list a selection process will then follow and you will be advised of the outcome by email. No other method of enrolment will be approved or accepted for this unit.

Internal mode only. Closing date for applications: 5pm Thursday 18 October 2011

## Semester 2 units:

### Contextual +

LWB144 Laws and Global Perspectives

LWB149 Indigenous Legal Issues

### Property and Environmental

LWB312 Real Estate Transactions

LWBXXX Climate Change Law

### Commercial and Consumer

LWB359 Advanced Taxation Law

\* see notes below

LWB363 Insurance Law

LWBXXX Consumer Financial Services Law and Regulation

### Intellectual Property and Technology

LWB482 Internet Law

LWB423 Intellectual Property and Technology Law Clinic

Internal mode only.

LWB480 Media Law

\* see notes below

### Human Rights

LWB149 Indigenous Legal Issues

LWB302 Family Law

LWB494 Principles of Sentencing

\* see notes below

LWB463 Immigration and Refugee Law

\* see notes below

### International

LWB144 Laws and Global Perspectives



LWB406 Fundamentals of Public International Law

### Legal Skills

LWB356 Advocacy

Any student wishing to undertake this unit must register their name with the Law School by emailing [law\\_enquiries@qut.edu.au](mailto:law_enquiries@qut.edu.au). The number of student enrolments in this unit may be capped. External students are not excluded from undertaking this unit, provided that they are able to meet all attendance requirements. Final year students and students who have not had the opportunity to undertake other skills or work integrated learning units will be given preference.

Block mode only. Closing Date for Applications: 5pm Thursday 19 April 2011

LWB413 Queensland Parliamentary Internship Program

This unit is for final year students only. There is a limited number of internships available and therefore enrolment in this unit is subject to approval by the unit co-ordinator. Interested students should contact John Pyke ([j.pyke@qut.edu.au](mailto:j.pyke@qut.edu.au)). NOTE: Due to complications in the Parliamentary calendar there may be no internships available in 2011. Please contact John Pyke for further information.

Internal mode only. Closing Date for Applications: End of May 2012

LWB418 Competition Moots 1

Entry is subject to being selected into a team to compete in one of the external moot competition competitions that the QUT Law School will enter.

Internal mode only. Closing date for applications: Enrolments will be called for at a later date via e-mail.

### Research and Theory

LWB497 Advanced Research Project

Application forms and guidelines can be found at <http://www.law.qut.edu.au/study/forms.jsp> and must be lodged at the Level 4 Reception C Block QUT Gardens Point. Forms must be submitted no later than 2 weeks prior to the commencement of semester.

Internal mode only. Closing Date for Applications: Forms must be submitted no later than 2 weeks prior to the commencement of semester.

### Work Integrated Learning

LWB421 Learning in Professional Practice

(Prior to enrolment in LWB421 students must have organised a legal professional placement as set out in the unit outline).

LWB422 Virtual Law Placement

Any student wishing to undertake this unit must register their name with the Law School by emailing [law\\_enquiries@qut.edu.au](mailto:law_enquiries@qut.edu.au).

Closing Date for Applications: 5pm Thursday 19 April 2011

LWB456 Legal Clinic (Organised Program)

Any student wishing to undertake this unit must register their name with the Law School by emailing [law\\_enquiries@qut.edu.au](mailto:law_enquiries@qut.edu.au).

Internal mode only. Closing Date for Applications: 5pm Thursday 19 April 2011

LWB423 Intellectual Property and Technology Law Clinic

Places in this unit are limited. Any student wishing to undertake this unit must register their name with the Law School by emailing [law\\_enquiries@qut.edu.au](mailto:law_enquiries@qut.edu.au). A particular selection process will then follow.

Internal mode only. Closing Date for Applications: 5pm Thursday 19 April 2011

### Notes:

+ The units LWB142 Law Society and Justice, LWB149 Indigenous Legal Issues, LWB144 Laws and Global Perspectives and LWB150 Dispute Resolution appear twice as they are contextual elective choices in first year, if you are completing a straight law degree (LW34). They are also elective choices within the various elective interest groups that can be undertaken in any year of your degree.

\*these starred units are alternating units and will generally only be offered in even years. Alternating units which are generally offered in even years include: LWB489 Native Title and Cultural Heritage Law; LWB410 Comparative Law; LWB367 Law of Corporate Governance; LWB308 Australian Employment Law; LWB483 Medico-Legal Issues and LWB496 Human Rights Law. The offering of these units will be subject to student demand and staff availability.

For further information on the Work Integrated Learning (Work Placement) units see: <http://www.law.qut.edu.au/about/wil/> and <http://www.law.qut.edu.au/about/wil/faq.jsp>

Restricted Entry Units have quota limits imposed. Although students are able to enrol in these units on-line no places are guaranteed until after the applications are closed.

External students are not excluded from undertaking these units, provided that they are able to meet all the attendance requirements.

### Bachelor of Laws Summer Units

#### Important Information

These offerings are current at time of publication but are subject to change.

The offering of elective units is subject to sufficient student enrolment numbers and staff availability.

#### Undergraduate Core Units

LWB239 Criminal Responsibility

LWB241 Trusts

LWB244 Property Law B

LWB334 Corporate Law

LWB335	Administrative Law
LWB431	Civil Procedure
LWB432	Evidence
LWB433	Professional Responsibility

#### Undergraduate Elective Units

LWB302	Family Law
LWB364	Introduction to Taxation Law
LWB421	Learning in Professional Practice
LWB486	Intellectual Property Law
LWB498	Dispute Resolution and Non-adversarial Practice

#### Graduate destination streams

##### Legal Practice

Electives that may be offered by the Law School that are particularly relevant to students considering a future career in legal practice include:

LWB302	Family Law
LWB307	Insolvency Law
LWB308	Australian Employment Law
LWB309	Succession
LWB312	Real Estate Transactions
LWB313	Discrimination & Equal Opportunity Law
LWB356	Advocacy
LWB359	Advanced Taxation Law
LWB361	Drafting
LWB363	Insurance Law
LWB364	Introduction to Taxation Law
LWB407	Private International Law
LWB410	Competition Law
LWB418	Competition Moots 1
LWB435	Legal Research in Practice
LWB454	Banking and Finance Law
LWB459	Commercial and Consumer Law
LWB460	Sports Law
LWB463	Immigration and Refugee Law
LWB480	Media Law
LWB482	Internet Law
LWB483	Medico-Legal Issues
LWB485	Environmental Law
LWB486	Intellectual Property Law
LWB489	Native Title Law and Practice
LWB494	Principles of Sentencing
LWB496	Australian and Comparative Human Rights Law
LWB498	Dispute Resolution and Non-adversarial Practice
LWB499	Creative Commons Clinic

LWBXXX	Consumer and Financial Services Law
LWBXXX	Climate Change Law

##### Public Sector

Electives that may be offered by the Law School that are particularly relevant to students considering a future career in the public sector include:

LWB333	Theories of Law
LWB406	Fundamentals of Public International Law
LWB413	Queensland Parliamentary Internship Program
LWB420	Internship
LWB463	Immigration and Refugee Law
LWB485	Environmental Law
LWB486	Intellectual Property Law
LWB494	Principles of Sentencing
LWB496	Australian and Comparative Human Rights Law
LWB499	Creative Commons Clinic

##### Private Enterprise

Electives that may be offered by the Law School that are particularly relevant to students considering a future career in the private sector include:

LWB308	Australian Employment Law
LWB366	Law of Commercial Entities
LWB367	Law of Corporate Governance
LWB410	Competition Law
LWB421	Learning in Professional Practice

##### Placement Electives

Electives which involve students undertaking real world professional experience include:

LWB413	Queensland Parliamentary Internship Program
LWB420	Internship
LWB421	Learning in Professional Practice
LWB422	Virtual Law Placement
LWB423	Intellectual Property and Technology Law Clinic

#### Potential Careers:

Academic, Analytical Chemist, Astrophysicist, Barrister, Biochemist, Chemist, Chemist Industrial, Coastal Scientist, Conservation Biologist, Crown Law Officer, Ecologist, Environmental Scientist, Forensic Chemist, Forensic Scientist, Geologist, Geophysicist, Geoscientist, Health Physicist, Hydrogeologist, Immunologist, In-House Lawyer, Industrial Chemist, Laboratory Technician (Chemistry), Lawyer, Marine Scientist, Medical Biotechnologist, Medical Physicist, Microbiologist, Mine Geologist, Natural Resource Scientist, Physicist, Plant Biotechnologist, Population Ecologist, Scientist, Solicitor, Virologist.

## Graduate Certificate in Research Commercialisation (IX97)

**Year offered:** 2011

**Admissions:** Yes

**Course duration (full-time):** 1 semester. Subject to maximum time limit of 1 years.

**Course duration (part-time):** 2 semesters. Subject to maximum time limit of 2 years.

**Domestic fees (indicative):** 2011: \$10,000 (indicative) per semester

**International Fees (indicative):** 2011: \$11,250 (indicative) per semester

**Course coordinator:** Professor Paul Burnett

**Campus:** Internet

### IX97 - Graduate Certificate in Research Commercialisation

#### Course structure

IFP100	Knowledge Transfer and Research Commercialisation
IFP101	Leadership and Workplace Communication
IFP102	Project Management and Research
IFP103	Public Policy and Research
IFP104	Entrepreneurial Foundations
IFP105	Principles and Practice of Research Management
IFP106	Managing Research Careers
IFP107	Global Sustainability

#### Potential Careers:

Academic, Administrator, Arts Administrator, Biochemist, Bioengineer, Bioinformatician, Biologist, Biomechanical Engineer, Biomedical Engineer, Biotechnologist, Biotechnology Business/Investment Analyst, Business Analyst, Business Development Officer, Cell Biologist, Civil Engineer, Contract Administrator, Financial Advisor/Analyst, Government Officer, International Business Specialist, Marine Scientist, Market Research Manager, Marketing Officer/Manager, Mathematician, Microbiologist, Policy Officer, Public Servant, Scientist, Social Scientist, Urban Designer, Visual Artist, Web Designer.

## **Master of Research and Development Management (IX99)**

**Year offered:** 2011

**Admissions:** Yes

**Course duration (full-time):** 3 semesters.

**Course duration (part-time):** 6 semesters.

**Domestic fees (indicative):** 2011: \$10,000 (indicative) per semester

**International Fees (indicative):** 2011: \$11,250 per semester

**Course coordinator:** Professor Paul Burnett

**Campus:** Internet

### **Entry Requirements**

The minimum entry requirement for this course is a four year undergraduate degree or three years plus either an honours year or postgraduate coursework year in any discipline. Applicants who do not meet these academic requirements may be eligible to enter the course on the basis of professional activities completed in research management, research commercialisation or related fields that satisfies the course coordinator.

### **Important Note**

This course is an online course and there is no requirement for a face-to-face session.

### **Course Enquiries**

research.enrolment@qut.edu.au

This course is offered jointly by the 5 ATN universities - Curtin University of Technology ; Queensland University of Technology; RMIT University; University of South Australia ; University of Technology Sydney

### **Full-time students**

Full-time students should enrol in IFP100, IFP105, IFP108, IFP109, IFP110 and 7 other units to complete 144 credit points in three semesters.

### **Part-time students**

Part- time students can enrol in one or two units per semester for up to six semesters maximum.

### **Early Exit Options**

Graduate Certificate and Diploma exit points are available following completion of four and eight units.

### **Advanced Standing**

Students with appropriate prior qualifications and/or professional experience may apply for advanced standing of up to 48CP towards the Master of R&D Management. Recognition for concurrent Professional Development activities may be possible. Registered members of professional societies may be eligible to receive advanced standing for approved professional development activities completed during enrolment in the award.

### **Concurrent Enrolment**

Research students are allowed to enrol concurrently in the Graduate Certificate and in their research course subject to

the approval of the Research Degrees Committee.

Research students may apply for leave of absence from their research course for the period of full time enrolment in the Graduate Certificate.

For further information relating to enrolment into a Research and Development Course, including pathways, please refer to Research and Development Courses - Enrolment website

### **Course structure**

IFP100	Knowledge Transfer and Research Commercialisation
IFP101	Leadership and Workplace Communication
IFP102	Project Management and Research
IFP103	Public Policy and Research
IFP104	Entrepreneurial Foundations
IFP105	Principles and Practice of Research Management
IFP106	Managing Research Careers
IFP107	Global Sustainability
IFP108	Strategic Issues in Research Management
IFP109	Contexts For Research & Development Management
IFP110	R&D Management Project 1
IFP111	R&D Management Project 2

### **Potential Careers:**

Academic, Administrator, Biochemist, Bioengineer, Bioinformatician, Biologist, Biomechanical Engineer, Biomedical Engineer, Biotechnologist, Biotechnology Business/Investment Analyst, Business Analyst, Business Development Officer, Cell Biologist, Civil Engineer, Contract Administrator, Financial Advisor/Analyst, Government Officer, International Business Specialist, Marine Scientist, Market Research Manager, Marketing Officer/Manager, Mathematician, Microbiologist, Policy Officer, Public Servant, Scientist, Social Scientist, Urban Designer, Visual Artist, Web Designer.



## Bachelor of Applied Science (Medical Science) (LS37)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 020331D

**Course duration (full-time):** 3 Years

**Course duration (part-time):** 6 Years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,625 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July (Conditions apply for July entry)

**QTAC code:** 418201

**Past rank cut-off:** 79

**Past OP cut-off:** 11

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA), Maths B (4, SA) and Chemistry (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 300

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Ms Anne-Marie Christensen

**Campus:** Gardens Point

### Overview

The Bachelor of Applied Science (Medical Science) leads to a range of exciting career opportunities. The degree is the preferred qualification for employment in the pathology industry as a medical scientist. It gives you practical experience in the most up-to-date diagnostic techniques and the opportunity to learn from current professionals in the workplace.

### Why Choose this Course?

This is the only medical science degree in Southern Queensland which is accredited with the Australian Institute of Medical Scientists (AIMS). In recent years more than 90 per cent of graduates seeking employment were successful within four months of graduation.

The course is designed in consultation with senior staff in pathology laboratories, so you will gain advanced knowledge of new diagnostic techniques used in the workplace. You will undertake practical classes in QUT's state-of-the-art laboratories, allowing you to graduate with extensive experience using equipment found in industry. You will undertake clinical placements in pathology laboratories giving you a chance to use your skills in a real workplace.

### Career Outcomes

Scientists in the pathology industry perform tests on human blood or tissue and other forms of testing in the areas of immunology, haematology, microbiology, histopathology, cytology and biochemistry. You may decide to specialise in areas such as leukaemia diagnosis, cytogenetics, stem cell

manipulation, tumour diagnosis, cytological diagnosis, DNA testing or forensic testing, or proceed to a managerial position within a pathology laboratory or hospital.

The course also provides a first degree for students wishing to undertake postgraduate studies in medicine. Graduates also have the opportunity to proceed to postgraduate studies leading to a career in medical research. Graduates are currently working as researchers in areas such as malaria, virology, stem cells, immunology and molecular biology.

### Professional Recognition

Graduates are immediately eligible for graduate membership of the Australian Institute of Medical Scientists (AIMS) and will have completed the academic requirements for admission as full members.

### Other Course Requirements

**Work Experience Program:** This course includes a mandatory Summer Program between years two and three of the full-time course. During the Summer Program you will be required to undertake a minimum six-week work experience program in a practising pathology laboratory. Proof of successful vaccination against Hepatitis B must be provided at the end of first semester of the second year of the course.

### Blue Card

A current blue card authorised with QUT may be required prior to commencing the clinical placement components of this course. For more information visit Blue Card and ensure that you allow adequate time for processing your application and issuing of the card in order to avoid clinical experience delays.

### Your course

#### Year 1

The Bachelor of Applied Science (Medical Science) commences with a solid grounding in life sciences, mathematics, chemistry and physics. You will undertake further intensive study in human physiology, anatomy, cell and molecular biology. With QUT's practical approach to teaching, you will not only learn the theory, but gain a wealth of practical experience in QUT's state-of-the-art laboratories.

#### Year 2

You will proceed to the topics of biochemistry, microbiology and pathology before sampling various specialisations like immunology, haematology and histopathology. During practical classes you will learn the latest techniques used in the pathology industry and improve your skills to professional standards. At the end of the year you will be ready to undertake a six-week placement in a pathology laboratory to further develop your skills under the guidance of professionals in the workplace.

#### Year 3

The final year builds on the key areas of biochemistry, microbiology, immunology, haematology, histopathology and introduces immunohaematology. You will develop your



skills to an advanced level and further refine your laboratory techniques to ensure that, when you graduate, you will be ready to operate confidently in the workplace. You can take advantage of QUT's close links with the pathology industry to further enhance your employment prospects.

## 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.

## Further Information

For further information about this course, please contact:

## Course Coordinator

Ms Anne-Marie Christensen  
Phone: +61 7 3138 2782  
Email: enquiry.scitech@qut.edu.au

## Full-time Course Structure

### Year 1, Semester 1

MAB141	Mathematics and Statistics for Medical Science
PCB150	Physics 1H
SCB112	Cellular Basis of Life
SCB113	Chemistry for Health and Medical Science

### Year 1, Semester 2

LSB250	Human Physiology
LSB255	Human Anatomy
SCB122	Cell and Molecular Biology
SCB131	Experimental Chemistry

### Year 2, Semester 1

LQB383	Molecular and Cellular Regulation
LQB386	Microbial Structure and Function
LSB325	Biochemistry
LSB365	Pathology

### Year 2, Semester 2

LSB425	Quantitative Medical Science
LSB435	Diagnostic Microbiology 1
LSB438	Immunology 1
LSB465	Histopathology 1

### Year 2, Summer Semester

LSB480	Professional Practice
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### Year 3, Semester 1

LSB525	Clinical Biochemistry 1
LSB535	Microbial Immunology
LSB555	Haematology 1
LSB565	Histopathology 2

### Year 3, Semester 2

LSB625	Clinical Biochemistry 2
LSB635	Diagnostic Microbiology 2
LSB655	Haematology 2
LSB665	Immunohaematology

## Part-time Course Structure - For students who will commence in 2011, & who commenced in 2009 & 2010

### Year 1, Semester 1

SCB112	Cellular Basis of Life
SCB113	Chemistry for Health and Medical Science

### Year 1, Semester 2

SCB122	Cell and Molecular Biology
SCB131	Experimental Chemistry

### Year 2, Semester 1

MAB141	Mathematics and Statistics for Medical Science
PCB150	Physics 1H

### Year 2, Semester 2

LSB250	Human Physiology
LSB255	Human Anatomy

### Year 3, Semester 1

LQB386	Microbial Structure and Function
LSB365	Pathology

### Year 3, Semester 2

LSB435	Diagnostic Microbiology 1
LSB438	Immunology 1

### Year 4, Semester 1

LQB383	Molecular and Cellular Regulation
LSB325	Biochemistry

### Year 4, Semester 2

LSB425	Quantitative Medical Science
LSB465	Histopathology 1

### Year 5, Semester 1

LSB525	Clinical Biochemistry 1
LSB535	Microbial Immunology

### Year 5, Semester 2

LSB625	Clinical Biochemistry 2
LSB635	Diagnostic Microbiology 2

### Year 5, Summer Semester

LSB480	Professional Practice
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### Year 6, Semester 1

LSB555	Haematology 1
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LSB565 Histopathology 2

LSB565 Histopathology 2

## Year 6, Semester 2

LSB655 Haematology 2

LSB665 Immunohaematology

## Year 6, Semester 2

LSB655 Haematology 2

LSB665 Immunohaematology

### Part-time Course Structure - For students who commenced in 2008

#### Year 1, Semester 1

MAB141 Mathematics and Statistics for Medical Science

SCB112 Cellular Basis of Life

#### Year 1, Semester 2

SCB113 Chemistry for Health and Medical Science

SCB122 Cell and Molecular Biology

#### Year 2, Semester 1

PCB150 Physics 1H

SCB131 Experimental Chemistry

#### Year 2, Semester 2

LSB250 Human Physiology

LSB255 Human Anatomy

#### Year 3, Semester 1

LQB386 Microbial Structure and Function

LSB325 Biochemistry

#### Year 3, Semester 2

LSB435 Diagnostic Microbiology 1

LSB438 Immunology 1

#### Year 4, Semester 1

LQB383 Molecular and Cellular Regulation

LSB365 Pathology

#### Year 4, Semester 2

LSB425 Quantitative Medical Science

LSB465 Histopathology 1

#### Year 5, Semester 1

LSB525 Clinical Biochemistry 1

LSB535 Microbial Immunology

#### Year 5, Semester 2

LSB625 Clinical Biochemistry 2

LSB635 Diagnostic Microbiology 2

#### Year 5, Summer Semester

LSB480 Professional Practice

#### Year 6, Semester 1

LSB555 Haematology 1

### Potential Careers:

Biochemist, Clinical Laboratory Scientist, Medical Scientist, Microbiologist, Operations Manager, Pathology Scientist.

## Bachelor of Biotechnology Innovation (LS50)

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 037681J

**Course duration (full-time):** 4 years

**Course duration (part-time):** 8 years

**Domestic fees (indicative):** 2011: CSP rate available August 2010

**International Fees (indicative):** 2011: \$11,750 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418311

**Past rank cut-off:** 77

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA), Maths B (4, SA) and Chemistry (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Discontinued Course

LS50 has been discontinued and replaced by ST50. LS50 is for continuing students only.

### Career Opportunities

The Bachelor of Biotechnology Innovation is training the next generation of bioentrepreneurs to translate research outcomes into business opportunities. Graduates can be business-savvy scientists, or operate in the world of commercialisation and technology transfer or start up their own biotechnology-based enterprise bringing their own products to market. The emphasis on innovation and entrepreneurship means that graduates are comfortable working in a start up company environment or on new projects in established enterprises. Traditional roles in research-focussed organisations are also available.

Graduates are taking up key positions in the biotechnology industry sector as scientists, business development officers building new businesses from emerging technologies and as commercialisation officers evaluating and financing the commercialisation of new biotechnology products.

Biotechnology is a global industry with many countries promoting the sector as a major pillar of future economic development. Career opportunities exist internationally and graduates are encouraged to think beyond Australia.

### Course Design

The Bachelor of Biotechnology Innovation, a degree with Honours, was the first degree of its type in Australia and aims to provide highly trained and motivated graduates skilled in the science and business and biotechnology.

Graduates undertake the same basic and advanced biotechnology science as students in other science-based courses, gaining requisite theoretical and practical skills. In this course, however, basic and advanced business units are undertaken highlighting entrepreneurial skills and biotechnology commercialisation. Integration and synthesis of the disparate disciplines is an essential component of the course.

Unique to the course is the Student BioEnterprise Scheme, a proactive project-based learning exercise promoting the integration of theory and practice in business and science. Students form companies and operate in the company environment over the entire duration of their course. Companies invent biotechnology-oriented products or processes and formulate strategies to bring them from laboratory to the marketplace under the guidance of industry and academic mentors. Students have many opportunities to network with industry through the Student BioEnterprise Scheme and numerous Ausbiotech functions, events and conferences. Companies can also undertake industry-based or consultancy projects with an industry partner in the final year of the course.

### Your Course

#### Year 1

In the first year you will lay a solid foundation of basic science and business skills and you will have your first opportunity to network with industry and academic mentors. Through the student BioEnterprise Scheme, you will join with a group of fellow students to form a virtual biotechnology company, which you will operate over the entire length of the course. Your company will invent biotechnology-oriented products or processes and formulate strategies to bring them from laboratory to the marketplace under the guidance of industry and academic mentors.

#### Year 2

You will build on your foundation year and introduce advanced disciplinary concepts relevant to business and science, integrating these two disciplines to provide you with the skills to operate in this niche environment. You may promote your company to industry representatives at the annual Stellar Start-ups function.

#### Year 3

In the science units, you will focus on biotechnological applications while the integrative business units teach you skills in business planning and commercialisation.

#### Year 4

Your company may undertake an industry-based or consultancy project with an industry partner. The network of business associates you have developed over the length of the course will be the key to success as you embark on your search for your first job. Alternatively, you may wish to be your own boss as you establish your own company.

### Professional Recognition

On graduation, you will be immediately eligible for graduate membership of AusBiotech Ltd and the Australian Society for Biochemistry and Molecular Biology (ASBMB).

### Why Choose this Course?

If you'd like to work in the dynamic world of translating science discoveries into money-making enterprises, meeting people, evaluating projects, picking winners and running with them, then this course is for you!

While research innovation is critical to the future of Australian industry, and that of many other nations, it is the commercialisation of innovations that will realise any potential and serve to build and strengthen local biotechnology industry. Australia already produces many competent and highly regarded scientists but has a poor history and capitalising on research outcomes. The Federal and various State Governments are investing hundreds of millions of dollars in research innovation and commercialisation and the emphasis has moved to bringing emerging technologies into the marketplace. There is an increasing demand for skilled professionals who can drive research commercialisation in the science and technology sector in Australia and in the global marketplace. The Bachelor of Biotechnology Innovation has created a new rapid pathway into the high-flying world of commercialisation and technology transfer.

Graduates of the Bachelor of Biotechnology Innovation have realised outstanding job outcomes and continue to be quickly employed by industry, often successfully competing against graduates with PhDs.

### Contact Details

For further information about this course, please contact:

#### Course Coordinator

Associate Professor Chris Collet  
Phone: +61 7 3138 5173  
Email: c.collet@qut.edu.au

### Full-time Course Structure - For students who commenced in 2009 - First Semester Entry

#### Year 1 - Semester 1

BSB115	Management
MAB101	Statistical Data Analysis 1
SCB111	Chemistry 1
SCB112	Cellular Basis of Life

#### Year 1, Semester 2

BSB126	Marketing
LSB258	Principles of Human Physiology
SCB121	Chemistry 2
SCB122	Cell and Molecular Biology

#### Year 2, Semester 1

AMB240	Marketing Planning and Management
LQB383	Molecular and Cellular Regulation
LQB386	Microbial Structure and Function
LSB325	Biochemistry

#### Year 2, Semester 2

LQB483	Molecular Biology Techniques
LQB484	Introduction to Genomics and Bioinformatics
LQB489	Plant Physiology and Cell Biology
MGB223	Entrepreneurship and Innovation

#### Year 3, Semester 1

LQB582	Biomedical Research Technologies
LQB583	Genetic Research Technology
LWS007	Introduction To Intellectual Property Law
MGB324	Managing Business Growth

#### Year 3, Semester 2

BSB311	Innovation Commercialisation Strategies
LQB682	Protein Biochemistry and Bioengineering
LQB686	Microbial Technology and Immunology
MGB200	Leading Organisations

#### Year 4, Semester 1

LQB584	Medical Cell Biology
LQB585	Plant Genetic Manipulation
LSB709-1	Biotechnology Research Project
MGB225	Intercultural Communication and Negotiation Skills

#### Year 4, Semester 2

LSB709-2	Biotechnology Research Project
LSB709-3	Biotechnology Research Project
Plus any TWO of the following three units:	
LQB684	Medical Biotechnology
LQB685	Plant Microbe Interactions
MGB309	Strategic Management

### Part-time Course Structure - For students who commenced in 2009 - First Semester Entry

#### Year 1, Semester 1

MAB101	Statistical Data Analysis 1
SCB112	Cellular Basis of Life

#### Year 1, Semester 2

LSB258	Principles of Human Physiology
SCB122	Cell and Molecular Biology

#### Year 2, Semester 1

BSB115	Management
SCB111	Chemistry 1

#### Year 2, Semester 2

BSB126	Marketing
SCB121	Chemistry 2

#### Year 3, Semester 1

## FACULTY OF SCIENCE AND TECHNOLOGY

LQB383	Molecular and Cellular Regulation
LSB325	Biochemistry

### Year 3, Semester 2

LQB483	Molecular Biology Techniques
LQB484	Introduction to Genomics and Bioinformatics

### Year 4, Semester 1

AMB240	Marketing Planning and Management
LQB386	Microbial Structure and Function

### Year 4, Semester 2

LQB489	Plant Physiology and Cell Biology
MGB223	Entrepreneurship and Innovation

### Year 5, Semester 1

LQB582	Biomedical Research Technologies
MGB324	Managing Business Growth

### Year 5, Semester 2

BSB311	Innovation Commercialisation Strategies
LQB682	Protein Biochemistry and Bioengineering

### Year 6, Semester 1

LQB583	Genetic Research Technology
LWS007	Introduction To Intellectual Property Law

### Year 6, Semester 2

LQB686	Microbial Technology and Immunology
MGB200	Leading Organisations

### Year 7, Semester 1

LQB584	Medical Cell Biology
LQB585	Plant Genetic Manipulation

### Year 7, Semester 2

Select TWO units from the following:

LQB684	Medical Biotechnology
LQB685	Plant Microbe Interactions
MGB309	Strategic Management

### Year 8, Semester 1

LSB709-1	Biotechnology Research Project
MGB225	Intercultural Communication and Negotiation Skills

### Year 8, Semester 2

LSB709-2	Biotechnology Research Project
LSB709-3	Biotechnology Research Project

### Full-time Course Structure - For students who commenced in 2009 - Mid Year Entry

### Year 1, Semester 2

SCB111	Chemistry 1
SCB112	Cellular Basis of Life
SCB121	Chemistry 2
SCB122	Cell and Molecular Biology

### Year 2, Semester 1

BSB115	Management
LQB383	Molecular and Cellular Regulation
LSB325	Biochemistry
MAB101	Statistical Data Analysis 1

### Year 2, Semester 2

LSB250	Human Physiology
LQB483	Molecular Biology Techniques
LQB484	Introduction to Genomics and Bioinformatics
LQB489	Plant Physiology and Cell Biology

### Year 3, Semester 1

BSB126	Marketing
LQB386	Microbial Structure and Function
LQB584	Medical Cell Biology
LQB585	Plant Genetic Manipulation

### Year 3, Semester 2

AMB240	Marketing Planning and Management
LQB682	Protein Biochemistry and Bioengineering
MGB200	Leading Organisations
MGB223	Entrepreneurship and Innovation

### Year 4, Semester 1

LQB582	Biomedical Research Technologies
LQB583	Genetic Research Technology
LWS007	Introduction To Intellectual Property Law
MGB324	Managing Business Growth

### Year 4, Semester 2

BSB311	Innovation Commercialisation Strategies
LQB686	Microbial Technology and Immunology
Plus any TWO of the following:	
LQB684	Medical Biotechnology
LQB685	Plant Microbe Interactions
MGB309	Strategic Management

### Year 5, Semester 1

LSB709-1	Biotechnology Research Project
LSB709-2	Biotechnology Research Project
LSB709-3	Biotechnology Research Project
MGB225	Intercultural Communication and Negotiation Skills

### Full-time Course Structure for students who commenced in 2008



**Year 1, Semester 1**

BSB110	Accounting
MAB101	Statistical Data Analysis 1
SCB111	Chemistry 1
SCB112	Cellular Basis of Life

**Year 1, Semester 2**

BSB115	Management
LSB258	Principles of Human Physiology
SCB121	Chemistry 2
SCB122	Cell and Molecular Biology

**Year 2, Semester 1**

BSB126	Marketing
LQB383	Molecular and Cellular Regulation
LQB386	Microbial Structure and Function
LSB325	Biochemistry

**Year 2, Semester 2**

LQB483	Molecular Biology Techniques
LQB484	Introduction to Genomics and Bioinformatics
LQB489	Plant Physiology and Cell Biology
MGB223	Entrepreneurship and Innovation

**Year 3, Semester 1**

LQB582	Biomedical Research Technologies
LQB583	Genetic Research Technology
LWS007	Introduction To Intellectual Property Law
MGB324	Managing Business Growth

**Year 3, Semester 2**

BSB311	Innovation Commercialisation Strategies
LQB682	Protein Biochemistry and Bioengineering
LQB686	Microbial Technology and Immunology
MGB200	Leading Organisations

**Year 4, Semester 1**

LQB584	Medical Cell Biology
LQB585	Plant Genetic Manipulation
LSB709-1	Biotechnology Research Project
MGB225	Intercultural Communication and Negotiation Skills

**Year 4, Semester 2**

LSB709-2	Biotechnology Research Project
LSB709-3	Biotechnology Research Project
	Plus any TWO of the following units:
LQB684	Medical Biotechnology
LQB685	Plant Microbe Interactions
MGB309	Strategic Management

**Potential Careers:**

Biotechnologist, Biotechnology Business/Investment Analyst, Business Development Officer, Cell Biologist, Commercialisation Officer, Medical Biotechnologist, Molecular Biologist, Plant Biotechnologist, Technology Transfer Officer.

## Graduate Certificate in Biotechnology (LS66)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 054278A

**Course duration (full-time):** 1 semester (0.5 year)

**Course duration (part-time):** 2 semesters (1 year)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,625 (indicative) per semester

**Domestic Entry:** July (Note: Students commencing in July, enrol in Semester 2 units first) (Students are NOT able to commence LS66 in February)

**International Entry:** July (Students are NOT able to commence LS66 in February)

**Total credit points:** 48

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Mark O'Brien

**Campus:** Gardens Point

### Overview

The postgraduate coursework programs will suit anyone who has a recent undergraduate degree (preferably, however not necessarily, in science) and who wishes to gain training and advanced specialisation in general, medical and/or plant biotechnology. The programs also cater for working scientists, support staff or students involved in commercial aspects of biotechnology, who wish to update their theoretical and practical biotechnology skills.

Science-based biotechnology units emphasising laboratory skills and hands-on laboratory experimentation feature prominently in the programs, which cover contemporary techniques in biotechnology. New technology is incorporated as it becomes available. The programs also offer students opportunities to pursue studies related to the business of biotechnology, marketing, commercialisation, as well as the legal and ethical aspects of biotechnological applications.

### Career Outcomes

Career opportunities include employment as research and support staff in the biotechnology industry - private or public biotechnology companies, universities, CSIRO, research institutes, government departments, pathology laboratories and hospitals.

### Entry Requirements

- A degree or equivalent, preferably but not necessarily in science.

Advanced standing (credit) may be given for this course if the student has a degree or equivalent with recent and appropriate undergraduate-level knowledge and laboratory experience in the key areas of molecular biology, cell biology, biochemistry and/or microbiology at an advanced level.

### Course Design

The program of study for an individual student will be decided in consultation with the course coordinator and will take into account the student's background in the cell and biomolecular sciences and areas of interest in biotechnology.

The Graduate Certificate in Biotechnology is a foundation program for people without a science degree or for those who do not have a recent background in the cell and biomolecular sciences. Fundamental aspects of cell and molecular biology, biochemistry and microbiology are covered in this first program. Successful completion of this program allows students to then specialise in more advanced aspects of biotechnology. The Graduate Certificate in Biotechnology also allows students to gain essential generic skills and attributes for successful postgraduate research and learning.

Students must commence in July and enrol in Semester 2 units first. Advanced standing (credit) may be given for this foundation program if the student has a degree or equivalent with recent and appropriate undergraduate-level knowledge and practical experience in the key areas of molecular biology, cell biology, biochemistry and/or microbiology at an advanced level. If advanced standing (credit) is granted and accepted students can enrol directly in any of the more advanced biotechnology programs in their first semester of study.

### Professional Recognition

Graduates are eligible to join the AusBiotech, the Australian Society for Biochemistry and Molecular Biology, and the Australian Society for Microbiology.

### Further information

For further information about this course, please contact:

Mark O'Brien

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### Course structure - Full-time

#### Year 1, Semester 2 (MODULE 1)

LSN101	Molecular Biosciences
LSN102	Cellular Biosciences
LSN103	Postgraduate Learning and Research Skills
LSN483	Molecular Biology Techniques

### Course structure - Part-time

#### Year 1, Semester 2 (MODULE 1)

LSN101	Molecular Biosciences
LSN102	Cellular Biosciences

#### Year 2, Semester 2 (MODULE 1)

LSN103	Postgraduate Learning and Research Skills
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LSN483    Molecular Biology Techniques

**Potential Careers:**

Biochemist, Biotechnologist, Medical Biotechnologist,  
Microbiologist, Molecular Biologist, Plant Biotechnologist,  
Research Assistant, Scientist, Virologist.

## Graduate Diploma in Biotechnology (LS76)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 016975B

**Course duration (full-time):** 2 semesters (1 year)

**Course duration (part-time):** 4 semesters (2 years)

**Domestic fees (indicative):** 2011: Full fee tuition \$9,750 (indicative) per semester

**International Fees (indicative):** 2011: \$12,000 (indicative) per semester

**Domestic Entry:** July (Note: Students commencing in July, enrol in Semester 2 units first) \*Also see "ENTRY REQUIREMENTS" below

**International Entry:** July (Note: Students commencing in July, enrol in Semester 2 units first) \*Also see "ENTRY REQUIREMENTS" below

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Mark O'Brien

**Campus:** Gardens Point

### Overview

The postgraduate coursework programs will suit anyone who has a recent undergraduate degree (preferably, however not necessarily, in science) and who wishes to gain training and advanced specialisation in general, medical and/or plant biotechnology. The programs also cater for working scientists, support staff or students involved in commercial aspects of biotechnology, who wish to update their theoretical and practical biotechnology skills.

Science-based biotechnology units emphasising laboratory skills and hands-on laboratory experimentation feature prominently in the programs, which cover contemporary techniques in biotechnology. New technology is incorporated as it becomes available. The programs also offer students opportunities to pursue studies related to the business of biotechnology, marketing, commercialisation, as well as the legal and ethical aspects of biotechnological applications.

### Career Outcomes

Career opportunities include employment as research and support staff in the biotechnology industry—private or public biotechnology companies, universities, CSIRO, research institutes, government departments, pathology laboratories and hospitals.

### Entry Requirements

A degree or equivalent, preferably but not necessarily in science.

Advanced standing (credit) may be given for the foundation program (LS66) if the student has a degree or equivalent with recent and appropriate undergraduate-level knowledge and laboratory experience in the key areas of molecular biology, cell biology, biochemistry and/or microbiology at an advanced level.

### Course Design

The program of study for an individual student will be decided in consultation with the course coordinator and will take into account the student's background in the cell and biomolecular sciences and areas of interest in biotechnology.

The Graduate Diploma in Biotechnology builds upon foundation concepts presented in the Graduate Certificate. The Graduate Diploma in Biotechnology offers students opportunities to pursue study in several relevant focus areas including the theoretical and practical aspects of biotechnology. It also covers the business of biotechnology, marketing, commercialisation, as well as the legal and ethical aspects of biotechnological applications.

### Professional Recognition

Graduates are eligible to join the AusBiotech, the Australian Society for Biochemistry and Molecular Biology, and the Australian Society for Microbiology.

### Further Information

For further information about this course, please contact:

Dr Mark O'Brien

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### Course structure - Full-time

#### Year 1, Semester 2 (MODULE 1)

LSN101	Molecular Biosciences
LSN102	Cellular Biosciences
LSN103	Postgraduate Learning and Research Skills
LSN483	Molecular Biology Techniques

#### Year 2, Semester 1 (MODULE 2)

LSP127	Business Aspects of Biotechnology Either
LSN583	Genetic Research Technology Or
LSN585	Plant Genetic Manipulation
	In consultation with the course coordinator, choose 24 credit points from the following units:
LQB582	Biomedical Research Technologies
LSN583	Genetic Research Technology
LSN584	Medical Cell Biology
LSN585	Plant Genetic Manipulation
LWN135	Law, Justice and New Genetic Technologies

### Course structure - Part-time

#### Year 1, Semester 2 (MODULE 1)

LSN101 Molecular Biosciences

LSN102 Cellular Biosciences

**Year 2, Semester 2 (MODULE 1)**

LSN103 Postgraduate Learning and Research Skills

LSN483 Molecular Biology Techniques

**Year 3, Semester 1 (MODULE 2)**

LSP127 Business Aspects of Biotechnology  
Either

LSN583 Genetic Research Technology  
Or

LSN585 Plant Genetic Manipulation

**Year 3, Semester 2 (MODULE 2)**

In consultation with the course coordinator,  
choose 24 credit points from the following units

LQB681 Biochemical Research Skills

LQB682 Protein Biochemistry and Bioengineering

LSN103 Postgraduate Learning and Research Skills

MGN409 Introduction to Management

**Potential Careers:**

Biochemist, Biotechnologist, Medical Biotechnologist,  
Microbiologist, Molecular Biologist, Plant Biotechnologist,  
Research Assistant, Scientist, Virologist.



## Master of Biotechnology (LS86)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 018479B

**Course duration (full-time):** 3 semesters (1.5 years)

**Course duration (part-time):** 6 semesters (3 years)

**Domestic fees (indicative):** 2011: Full fee tuition \$9,750 (indicative) per semester

**International Fees (indicative):** 2011: \$12,000 (indicative) per semester

**Domestic Entry:** July (Note: Students commencing in July, enrol in Semester 2 units first) \*Also see "ENTRY REQUIREMENTS" below

**International Entry:** July (Note: Students commencing in July, enrol in Semester 2 units first) \*Also see "ENTRY REQUIREMENTS" below

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Mark O'Brien

**Campus:** Gardens Point

### Overview

The postgraduate coursework programs in Biotechnology will suit anyone who has a recent undergraduate degree (preferably, however not necessarily, in science) and who wishes to gain training and advanced specialisation in general, medical and/or plant biotechnology. The programs also cater for working scientists, support staff or students involved in commercial aspects of biotechnology, who wish to update their theoretical and practical biotechnology skills. Science-based biotechnology units emphasising laboratory skills and hands-on laboratory experimentation feature prominently in the programs, which cover contemporary techniques in biotechnology. New technology is incorporated as it becomes available. The programs also offer students opportunities to pursue studies related to the business of biotechnology, marketing, commercialisation, as well as the legal and ethical aspects of biotechnological applications.

### Entry Requirements

A bachelor degree or equivalent, preferably but not necessarily in science, is required. Please contact the course coordinator for further information on the entry requirements for this course.

*\*LS86 commences in July (Module 1 entry). Students with advanced standing for Module 1 should commence in February as the Faculty does not offer sufficient units in Module 2 in second semester. Note especially that the February entry point for this course is for students with advanced standing for Module 1. It is not possible to commence Module 1 in February.*

*For students with advanced standing for Module 1 and who wish to enter LS86 in July, a modified program will be required and this should be discussed with the course coordinator prior to enrolment. Students should note that this may require them to study business electives only in their first semester and could lead to them having to take an additional semester to complete the requirements of their*

*program.*

### Career Outcomes

Career opportunities include employment as research and support staff in the biotechnology industry - private or public biotechnology companies, universities, CSIRO, research institutes, government departments, pathology laboratories and hospitals.

### Professional Recognition

Graduates are eligible to join the AusBiotech, the Australian Society for Biochemistry and Molecular Biology, and the Australian Society for Microbiology.

### Course Design

The Master of Biotechnology is designed to give students further training and specialisation in general medical and/or plant biotechnology. This program follows successful completion of core and optional units offered in both the Graduate Certificate in Biotechnology and Graduate Diploma in Biotechnology.

### Further Information

For further information about this course, please contact:

Dr Mark O'Brien

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### Course structure - Full-time

#### Year 1, Semester 2 (MODULE 1)

LSN101	Molecular Biosciences
LSN102	Cellular Biosciences
LSN103	Postgraduate Learning and Research Skills
LSN483	Molecular Biology Techniques

#### Year 2, Semester 1 (MODULE 2)

LSP127	Business Aspects of Biotechnology
	Either
LSN583	Genetic Research Technology
	Or
LSN585	Plant Genetic Manipulation

In consultation with the course coordinator, choose 24 credit points from the following units:

LQB582	Biomedical Research Technologies
LSN583	Genetic Research Technology
LSN584	Medical Cell Biology
LSN585	Plant Genetic Manipulation
LWN135	Law, Justice and New Genetic Technologies

#### Year 2, Semester 2 (MODULE 3)

BSB311	Innovation Commercialisation Strategies
	Either

LSN684	Medical Biotechnology 2	Or	
	Or	LSN684	Medical Biotechnology 2
LQB685	Plant Microbe Interactions		
	In consultation with the course coordinator, choose 24 credit points from the following units:		
LQB484	Introduction to Genomics and Bioinformatics		
LQB681	Biochemical Research Skills		
LQB682	Protein Biochemistry and Bioengineering		
LQB685	Plant Microbe Interactions		
LSN684	Medical Biotechnology 2		
MGN409	Introduction to Management		

**Potential Careers:**

Biochemist, Biotechnologist, Medical Biotechnologist, Microbiologist, Molecular Biologist, Plant Biotechnologist, Research Assistant, Scientist, Virologist.

**Course structure - Part-time**

**Year 1, Semester 2 (MODULE 1)**

LSN101	Molecular Biosciences
LSN102	Cellular Biosciences

**Year 2, Semester 2 (MODULE 1)**

LSN103	Postgraduate Learning and Research Skills
LSN483	Molecular Biology Techniques

**Year 3, Semester 1 (MODULE 2)**

LSP127	Business Aspects of Biotechnology
	Either
LSN583	Genetic Research Technology
	Or
LSN585	Plant Genetic Manipulation

**Year 3, Semester 2 (MODULE 3)**

	In consultation with the course coordinator, choose 24 credit points from the following units:
LQB681	Biochemical Research Skills
LQB682	Protein Biochemistry and Bioengineering
LSN103	Postgraduate Learning and Research Skills
MGN409	Introduction to Management

**Year 4, Semester 1 (MODULE 2)**

	In consultation with the course coordinator, choose 24 credit points from the following units:
LQB582	Biomedical Research Technologies
LSN583	Genetic Research Technology
LSN584	Medical Cell Biology
LSN585	Plant Genetic Manipulation
LWN135	Law, Justice and New Genetic Technologies

**Year 4, Semester 2 (MODULE 3)**

BSB311	Innovation Commercialisation Strategies
	Either
LQB685	Plant Microbe Interactions

## Master of Biotechnology (Advanced) (LS96)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 054279M

**Course duration (full-time):** 4 semesters (2 years)

**Course duration (part-time):** 8 semesters (4 years)

**Domestic fees (indicative):** 2011: Full fee tuition \$8,250 (indicative) per semester

**International Fees (indicative):** 2011: \$11,875 (indicative) per semester

**Domestic Entry:** July (Note: Students commencing in July, enrol in Semester 2 units first) \*Also see "ENTRY REQUIREMENTS" below

**International Entry:** July (Note: Students commencing in July, enrol in Semester 2 units first) \*Also see "ENTRY REQUIREMENTS" below

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Mark O'Brien

**Campus:** Gardens Point

### Overview

The Master of Biotechnology (Advanced) program completes the comprehensive training of students and follows successful completion of core and optional units offered in the Graduate Certificate in Biotechnology, Graduate Diploma in Biotechnology and Master of Biotechnology programs. It encompasses general medical and/or plant biotechnology. In their final semester of the program, students may undertake a supervised research project either at QUT or external to QUT.

Part-time students may also elect to do a research project at their place of work, with both a workplace supervisor and a QUT supervisor. Students must discuss research project areas prior to enrolment in their final semester of study in LS96 to organise a suitable project and a project supervisor(s). While there is a wide range of research project areas available, it may not always be possible for students to conduct a research project exactly in the area they desire.

There is also no guarantee that either a suitable project and/or project supervisor(s) will be available in the semester that the student wishes to undertake the project unit.

Some students prefer not to undertake a research project in their final semester of study. For students not undertaking a research project, additional coursework must be completed. Students will need to consult with the course coordinator in selecting additional coursework units.

These postgraduate coursework programs will suit anyone who has a recent undergraduate degree (preferably, however not necessarily, in science) and who wishes to gain training and advanced specialisation in general, medical and/or plant biotechnology. The programs also cater for working scientists, support staff or students involved in commercial aspects of biotechnology who wish to update their theoretical and practical biotechnology skills.

Science-based biotechnology units emphasising laboratory

skills and hands-on laboratory experimentation feature prominently in the programs, which cover contemporary techniques in biotechnology. New technology is incorporated as it becomes available. The programs also offer students opportunities to pursue studies related to the business of biotechnology, marketing and commercialisation, as well as the legal and ethical aspects of biotechnological applications.

### Entry Requirements

A degree or equivalent, preferably but not necessarily in science.

Advanced standing (credit) may be given for the foundation program (LS66) if the student has a degree or equivalent with recent and appropriate undergraduate-level knowledge and laboratory experience in the key areas of molecular biology, cell biology, biochemistry and/or microbiology at an advanced level.

### Course Design

The program of study for an individual student will be decided in consultation with the course coordinator and will take into account the student's background in the cell and biomolecular sciences and areas of interest in biotechnology.

The Graduate Certificate in Biotechnology is a foundation program for people without a science degree or for those who do not have a recent background in the cell and biomolecular sciences. Fundamental aspects of cell and molecular biology, biochemistry and microbiology are covered in this first program. Successful completion of this program allows students to then specialise in more advanced aspects of biotechnology. The Graduate Certificate in Biotechnology also allows students to gain essential generic skills and attributes for successful postgraduate research and learning.

Students must commence in July and enrol in Semester 2 units first. Advanced standing (credit) may be given for this foundation program if the student has a degree or equivalent with recent and appropriate undergraduate-level knowledge and practical experience in the key areas of molecular biology, cell biology, biochemistry and/or microbiology at an advanced level. If advanced standing (credit) is granted and accepted, students can enrol directly in any of the more advanced biotechnology programs in their first semester of study.

The Graduate Diploma in Biotechnology builds upon foundation concepts presented in the Graduate Certificate. The Graduate Diploma in Biotechnology offers students opportunities to pursue study in several relevant focus areas including the theoretical and practical aspects of biotechnology. It also covers the business of biotechnology, marketing and commercialisation, as well as the legal and ethical aspects of biotechnological applications.

The Master of Biotechnology is designed to give students further training and specialisation in general medical and/or plant biotechnology. This program follows successful completion of core and optional units offered in both the Graduate Certificate in Biotechnology and Graduate Diploma in Biotechnology.

### Professional Recognition

Graduates are eligible to join the AusBiotech, the Australian Society for Biochemistry and Molecular Biology, and the Australian Society for Microbiology.

### Career Outcomes

Career opportunities include employment as research and support staff in the biotechnology industry—private or public biotechnology companies, universities, CSIRO, research institutes, government departments, pathology laboratories and hospitals.

### Further Information

For further information about this course, please contact:

Dr Mark O'Brien  
Phone: +61 7 3138 2782  
Email: enquiry.scitech@qut.edu.au

### Course structure - Full-time

#### Year 1, Semester 2 (MODULE 1)

LSN101	Molecular Biosciences
LSN102	Cellular Biosciences
LSN103	Postgraduate Learning and Research Skills
LSN483	Molecular Biology Techniques

#### Year 2, Semester 1 (MODULE 2)

LSP127	Business Aspects of Biotechnology
	Either
LSN583	Genetic Research Technology
	Or
LSN585	Plant Genetic Manipulation
	In consultation with the course coordinator, choose 24 credit points from the following units:
LQB582	Biomedical Research Technologies
LSN583	Genetic Research Technology
LSN584	Medical Cell Biology
LSN585	Plant Genetic Manipulation
LWN135	Law, Justice and New Genetic Technologies
AMN442	Marketing Management

#### Year 2, Semester 2 (MODULE 3)

BSB311	Innovation Commercialisation Strategies
	Either
LQB685	Plant Microbe Interactions
	Or
LSN684	Medical Biotechnology 2
	In consultation with the course coordinator, choose 24 credit points from the following units:
LQB484	Introduction to Genomics and Bioinformatics
LQB681	Biochemical Research Skills

LQB682	Protein Biochemistry and Bioengineering
LQB685	Plant Microbe Interactions
LSN684	Medical Biotechnology 2
MGN409	Introduction to Management

#### Year 3, Semester 1 (MODULE 4)

LSN710	Project
	For those students NOT undertaking LSN710 Project, in consultation with the course coordinator, choose 48 credit points from the following units:
LQB582	Biomedical Research Technologies
LSN583	Genetic Research Technology
LSN584	Medical Cell Biology
LSN585	Plant Genetic Manipulation
LWN135	Law, Justice and New Genetic Technologies

### Course structure - Part-time

#### Year 1, Semester 2 (MODULE 1)

LSN101	Molecular Biosciences
LSN102	Cellular Biosciences

#### Year 2, Semester 2 (MODULE 1)

LSN103	Postgraduate Learning and Research Skills
LSN483	Molecular Biology Techniques

#### Year 3, Semester 1 (MODULE 2)

LSN583	Genetic Research Technology
	Either
LSN585	Plant Genetic Manipulation
	Or
LSP127	Business Aspects of Biotechnology

#### Year 3, Semester 2 (MODULE 3)

	In consultation with the course coordinator, choose 24 credit points from the following units:
LQB681	Biochemical Research Skills
LQB682	Protein Biochemistry and Bioengineering
LSN103	Postgraduate Learning and Research Skills
MGN409	Introduction to Management

#### Year 4, Semester 1 (MODULE 2)

	In consultation with the course coordinator, choose 24 credit points from the following units:
LQB582	Biomedical Research Technologies
LSN583	Genetic Research Technology
LSN584	Medical Cell Biology
LSN585	Plant Genetic Manipulation
AMN442	Marketing Management
LWN135	Law, Justice and New Genetic Technologies

**Year 4, Semester 2 (MODULE 3)**

- BSB311 Innovation Commercialisation Strategies  
Either
- LQB685 Plant Microbe Interactions  
Or
- LSN684 Medical Biotechnology 2

**Year 5, Semester 1 (MODULE 4)**

- LSN711 Project 1  
For those students NOT undertaking LSN712 Project 2, in consultation with the course coordinator, choose 48 credit points from the following units:
- LQB582 Biomedical Research Technologies
- LSN583 Genetic Research Technology
- LSN584 Medical Cell Biology
- LSN585 Plant Genetic Manipulation
- LWN135 Law, Justice and New Genetic Technologies

**Year 5, Semester 2 (MODULE 4)**

- LSN712 Project 2  
For those students NOT undertaking LSN711 Project 1, in consultation with the course coordinator, choose 24 credit points from the following units:
- LQB484 Introduction to Genomics and Bioinformatics
- LQB681 Biochemical Research Skills
- LQB682 Protein Biochemistry and Bioengineering
- LQB685 Plant Microbe Interactions
- LSN684 Medical Biotechnology 2
- MGN409 Introduction to Management

**Potential Careers:**

Biochemist, Biotechnologist, Medical Biotechnologist, Microbiologist, Molecular Biologist, Plant Biotechnologist, Research Assistant, Scientist, Virologist.



## Bachelor of Mathematics (MA54)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 049433D

**Course duration (full-time):** 3 Years

**Course duration (part-time):** 6 Years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$11,375 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**QTAC code:** 418701

**Past rank cut-off:** 81

**Past OP cut-off:** 10

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 288

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Glenn Fulford

**Discipline coordinator:** Dr Dann Mallet

**Campus:** Gardens Point

### Overview

Mathematical sciences provide powerful tools for analysis of today's complex world and give an insight into many real-world problems of significant importance. Mathematics and statistics graduates use their analytical and problem-solving skills in a vast array of roles and settings.

Mathematicians and statisticians can develop new financial products in the banking industry, optimise transportation schedules in today's busy world, or help understand customer value in the commercial world. Mathematicians can aid scientific research by data mining to discover genetic links and pathways or help to understand disease transmission of a pandemic. Computer simulation and visualisation techniques can be used in many research projects including bone fracture and wound healing, and modelling saltwater intrusion in coastal systems. Mathematics graduates play integral roles in the workplace, where they develop mathematical models and numerical algorithms to answer what-if scenarios, and design experiments to help guide research and improve processes.

### Why Choose This Course

The course's flexible structure allows you to choose to study only mathematics units, or include some units from another area of interest, such as science, business or information technology. You will be able to design a program to suit your interests and career aspirations by combining advanced units from a number of mathematical specialisations.

### Career Outcomes

As a mathematics graduate you will find employment opportunities across a wide range of areas, such as finance, investment, information technology, environmental

management, health, marketing, logistics, defence, media, education and research. In addition to your knowledge and abilities in mathematics, you will also be highly valued for your analytical and problem solving skills. Development of skills in communication, problem solving, critical thinking and teamwork form an integral part of the course.

### Professional Recognition

On graduation you will be eligible to join the Australian Mathematical Society, the Statistical Society of Australia and the Australian Society for Operations Research.

### Financial Support

You should consider applying for an industry-sponsored mathematics bursary to help you financially throughout your studies. For further information visit [scholarships](#).

### Your Course

#### Year 1

You will study core units in mathematics and statistics. These core units include studies in calculus, algebra, vectors and matrices, computational mathematics, data analysis and statistical modelling.

#### Year 2

You will build on your core studies by advancing to more specialised topics such as advanced calculus, linear algebra, differential equations, operations research, data visualisation, statistics or modelling. Your practical assignments will tackle problems faced in the real world. You can choose to study only mathematics units or include units from another area of interest, such as science, business, information technology or a language.

#### Year 3

Refine your studies by combining advanced units from the following specialisations:

- applied mathematics: using mathematical techniques to solve real-world problems
- computational mathematics: using computers and numerical techniques to find solutions to complex problems which cannot be solved analytically
- discrete mathematics: the mathematics of numbers, including sets, fields, rings and groups which is used extensively in information security
- financial mathematics: applying a wide variety of mathematical techniques for use in a range of financial areas
- mathematical modelling: using mathematical techniques to develop a model or explanation of a real-world problem which can then be tested
- operations research: optimising complex systems including queuing, scheduling or allocation of resources
- scientific computation and visualisation: large-scale scientific modelling and creating graphical representations using visualisation techniques
- statistics: collecting data in an appropriate format, experimental design, analysis of data and using data to make predictions
- statistical modelling: building and analysing models of systems involving probability and variables.

### Recommended Study

Maths C is recommended.

### Mathematics Bursaries

Students enrolled in this course can apply for industry-sponsored bursaries. These bursaries are awarded to Australian citizens or permanent residents on a competitive basis. Applications should be submitted by 1 December of the year preceding entry to the course. For further information see the Mathematical Bursaries Page.

### 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.

### Further Information

For further information about this course, please contact:

### Course Coordinator

Dr Glenn Fulford

Phone: +61 7 3138 5196

Email: sms.ma54coord@qut.edu.au

### Course structure - Bachelor of Mathematics

Students complete at least 192 credit points (16 twelve credit point units) of Mathematics units according to the following requirements:

#### Level 1 Mathematics Units

Students must complete the following Level 1 Mathematics units:

MAB101	Statistical Data Analysis 1
MAB120	Algebra and Calculus
MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry
MAB210	Statistical Modelling 1
MAB220	Computational Mathematics 1

Note: MAB120 is for students who do not have an exit assessment of at least Sound Achievement in four semesters of both Senior Mathematics B and Senior Mathematics C. Students with at least Sound Achievement in both Mathematics B and C (or equivalent) may select a level 2 Mathematics unit instead of MAB120.

#### Level 2 and 3 Mathematics Units

At least 120 credit points (10 twelve credit point units) must be taken from Level 2 and Level 3 Mathematics units with at least 48 credit points (4 twelve credit point units) from Level 3 mathematics units

Students must complete:

MAB311	Advanced Calculus
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MAB312	Linear Algebra
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#### Other Units - Complementary Studies

Up to a maximum of 96 credit points may be taken as electives with not more than 48 credit points from first level units.

### Suggested Program for February Entry

STUDENTS WITH AN EXIT ASSESSMENT OF AT LEAST SOUND ACHIEVEMENT IN BOTH SENIOR MATHEMATICS B AND SENIOR MATHEMATICS C (OR EQUIVALENT)

#### Year 1, Semester 1

MAB101	Statistical Data Analysis 1
MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry
	ONE additional unit from:
BSB110	Accounting
MAB220	Computational Mathematics 1
SCB110	Science Concepts and Global Systems
	Other first level unit (see below and later in document for other suggestions)

#### Year 1, Semester 2

MAB210	Statistical Modelling 1
	THREE additional units from:
MAB220	Computational Mathematics 1
MAB281	Mathematics for Computer Graphics
MAB313	Mathematics of Finance
MAB422	Mathematical Modelling
MAB480	Introduction to Scientific Computation
BSB113	Economics
PQB250	Mechanics and Electromagnetism
PQB251	Waves and Optics
SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Other first level elective units (see later in document for other suggestions)
	PLEASE NOTE: MAB220 is a compulsory unit. In this instance, it appears as optional in either semester 1 or 2.

#### Year 2, Semester 1

MAB311	Advanced Calculus
MAB312	Linear Algebra
	TWO additional units from mathematics units or elective units

#### Year 2, Semester 2

FOUR units from mathematics units or elective units (see course structure)

**Year 3, Semester 1**

FOUR units from mathematics units or elective units (see course structure)

**Year 3, Semester 2**

FOUR units from mathematics units or elective units (see course structure)

STUDENTS WITH AN EXIT ASSESSMENT OF AT LEAST SOUND ACHIEVEMENT IN SENIOR MATHEMATICS B ONLY (OR EQUIVALENT)

**Year 1, Semester 1**

MAB101 Statistical Data Analysis 1  
MAB120 Algebra and Calculus  
TWO additional units from:  
BSB110 Accounting  
BSB113 Economics  
SCB110 Science Concepts and Global Systems  
SCB111 Chemistry 1  
SCB112 Cellular Basis of Life  
Other first level elective unit (see later in document for other suggestions)

**Year 1, Semester 2**

MAB121 Calculus and Differential Equations  
MAB122 Algebra and Analytic Geometry  
MAB210 Statistical Modelling 1  
MAB220 Computational Mathematics 1

**Year 2, Semester 1**

MAB311 Advanced Calculus  
MAB312 Linear Algebra  
TWO additional units from mathematics units or elective units

**Year 2, Semester 2**

FOUR units from mathematics units or elective units (see course structure)

**Year 3, Semester 1**

FOUR units from mathematics units or elective units (see course structure)

**Year 3, Semester 2**

FOUR units from mathematics units or elective units (see course structure)

## Mathematics Units

**Mathematics Units**

Students should not enrol in Mathematics units other than those listed below:

### Level 1 Mathematics Units

MAB101 Statistical Data Analysis 1  
MAB120 Algebra and Calculus  
MAB121 Calculus and Differential Equations  
MAB122 Algebra and Analytic Geometry  
MAB210 Statistical Modelling 1  
MAB220 Computational Mathematics 1

### Level 2 Mathematics Units

MAB311 Advanced Calculus  
MAB312 Linear Algebra  
MAB313 Mathematics of Finance  
MAB314 Statistical Modelling 2  
MAB315 Operations Research 2  
MAB413 Differential Equations  
MAB414 Applied Statistics 2  
MAB420 Computational Mathematics 2  
MAB422 Mathematical Modelling  
MAB461 Discrete Mathematics  
MAB480 Introduction to Scientific Computation

### Level 3 Mathematics Units

MAB521 Applied Mathematics 3  
MAB522 Computational Mathematics 3  
MAB524 Statistical Inference  
MAB525 Operations Research 3A  
MAB533 Statistical Techniques  
MAB536 Time Series Analysis  
MAB613 Partial Differential Equations  
MAB623 Financial Mathematics  
MAB624 Applied Statistics 3  
MAB625 Operations Research 3B  
MAB640 Industry Project  
MAB672 Advanced Mathematical Modelling  
MAB681 Advanced Visualisation and Data Analysis (Future offering expected after 2011.)

### Other Units

Up to a maximum of 96 credit points (8 twelve credit point units) can be taken from other units, with not more than 48 credit points (4 twelve credit point units) from first level units. A first level unit is classified as a unit that is normally taken in the first year of a single degree.

OTHER UNIT - FIRST LEVEL: This unit can only be taken in MA54 after recommendation from the Course Coordinator. This unit cannot be included in the minimum of 16 mathematics units required for the course.

MAB105 Preparatory Mathematics

OTHER UNIT - ADVANCED LEVEL: This unit cannot be included in the minimum of 16 mathematics units required for the course, but can be counted as an elective.

MAB281 Mathematics for Computer Graphics

**Potential Careers:**

Actuary, Computer Game Programmer, Market Research Manager, Mathematician, Quantitative Analyst, Statistician.

## Bachelor of Mathematics & Bachelor of Applied Science (Honours) - Dean's Scholars Honours Program (MA54 + SC60)

**Year offered:** 2011

**Admissions:** Yes

**Course duration (full-time):** 4 years - with optional acceleration to 3 or 3½ years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**Domestic Entry:** February: Fixed Closing Date- 26 November 2010.

**International Entry:** International Students: Course commences in February - (This course is only available to international students completing Year 12 in Australia)

**QTAC code:** 418042

**Past rank cut-off:** 98 plus questionnaire and possible interview. Please refer to Additional Entry Requirements.

**Past OP cut-off:** 2 plus questionnaire and possible interview. Please refer to Additional Entry Requirements.

**Assumed knowledge:** English (4, SA) and Maths B (4, VHA) plus two (2) of Biological Science, Chemistry, Earth Science, Maths C or Physics (4, VHA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384 (BMaths 288 cp and BAppSc(Hons) 96cp)

**Standard credit points per full-time semester:** 48

**Course coordinator:** Mr Richard Thomas

**Discipline coordinator:** A/Prof Dann Mallet

**Campus:** Gardens Point

### Additional Entry Requirements

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

Shortlisted registrants may be required to attend an interview in December and will be notified of date and venue after registrations close.

### Overview

The Dean's Scholars Program in Mathematics offers an enriched course of study, with an early introduction to mathematical research, for students who obtain outstanding levels of academic achievement at Secondary School. At the same time it provides the option of an accelerated pathway by which these students are able to complete the Bachelor of Mathematics course plus the Bachelor of Applied Science (Honours) course in a total of just three years.

Mathematics Dean's scholars are able to undertake research enrichment units and individually-tailored tutorial programs:

- an individually-tailored tutorial program under the guidance of an academic mentor (SCB303 *Tutorial*

*Program for Dean's Scholars*); and

- a research component that is individually tailored to the student's interests, in which research skills are developed and a small research project supervised by a research mentor is completed in the final year (SCB401 *Research Methods for Dean's Scholars* and SCB501 *Research Project for Dean's Scholars*).

### Professional Recognition

As a graduate of the Bachelor of Mathematics and Bachelor of Applied Science Dean's Scholars Honours Program you will qualify for professional membership of the Australian Mathematical Society (AMS), the Statistical Society of Australia (SSA) and the Australian Society for Operations Research (ASOR). It is expected that many Dean's Scholars will proceed to Doctor of Philosophy studies.

### Who should apply

The program is open to applicants currently undertaking Year 12 studies at a secondary school, and who achieve an OP 1 or 2 (or interstate equivalent). Applicants must be outstanding current, or returning from a gap year, Year 12 students who completed their Year 12 education in Australia.

### Career Outcomes

As a graduate of the Bachelor of Mathematics and Bachelor of Applied Science Dean's Scholars Honours Program you will find employment opportunities across a wide range of areas, such as finance, investment, information technology, environmental management, health, marketing, logistics, defence, medic, education and research. In addition to your knowledge and abilities in mathematics, you will also be highly valued for your analytical and problem-solving skills. Development of skills in communication, problem solving, critical thinking and teamwork form an integral part of the course.

### Note:

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

### Non-Accelerated Course Structure – 4 Years

#### Year 1, Semester 1 (48 cp)

Normal BMaths and BAppSc(Hons) units:  
BMaths Coursework (48 cp)

#### Year 1, Semester 2 (48 cp)

Dean's Scholars Program enrichment unit:  
SCB303 Tutorial Program for Dean's Scholars  
Normal BMaths and BAppSc(Hons) units:  
BMaths Coursework (36 cp)

#### Year 2, Semester 1 (48 cp)

Dean's Scholars Program enrichment unit:



SCB401 Research Methods for Dean's Scholars  
Or other approved unit  
Normal BMaths and BAppSc(Hons) units:  
BMaths Coursework (36 cp)

## Year 2, Semester 2 (48 cp)

Normal BMaths and BAppSc(Hons) units:  
BMaths Coursework (48 cp)

## Year 3, Semester 1 (48 cp)

Dean's Scholars Program enrichment unit:

SCB501-1 Research Project for Dean's Scholars  
Normal BMaths and BAppSc(Hons) units:  
BAppSc Coursework (36 cp)

## Year 3, Semester 2 (48 cp)

Dean's Scholars Program enrichment unit:

SCB501-2 Research Project for Dean's Scholars  
Normal BMaths and BAppSc(Hons) units:  
BMaths Coursework (36 cp)

## Year 4, Semester 1 (48 cp) and Semester 2 (48 cp)

Normal BMaths and BAppSc(Hons) units:  
BAppSc(Hons) Coursework/Research (48 cp)

Normal BMaths and BAppSc(Hons) units:  
BAppSc(Hons) Coursework/Research (48 cp)

## Notes:

- The exact timing of Dean's Scholars Program enrichment units may be varied to suit the student's chosen program of study.

- It is also possible to complete the program in 3.5 years using a combination of the 3 and 4 year structures. There is also flexibility for students to undertake Dean's Scholars Program enrichment units during the summer semesters between years 1 and 2, and years 2 and 3 to lighten regular semester study loads or to assist in acceleration.

## Accelerated Course Structure – 3 Years

### Year 1, Semester 1 (60 cp)

Dean's Scholars Program enrichment unit:

SCB303 Tutorial Program for Dean's Scholars  
Normal BMaths and BAppSc(Hons) units:  
BMaths Coursework (48 cp)

### Year 1, Semester 2 (60 cp)

Dean's Scholars Program enrichment unit:

SCB401 Research Methods for Dean's Scholars  
Normal BMaths and BAppSc(Hons) units:  
BMaths Coursework (48 cp)

### Year 1/2, Summer Semester (24 cp)

Dean's Scholars Program enrichment unit:

SCB301 Science for Dean's Scholars

### Year 2, Semester 1 (60 cp)

Dean's Scholars Program enrichment unit:

SCB501-1 Research Project for Dean's Scholars  
Normal BMaths and BAppSc(Hons) units:  
BMaths Coursework (48 cp)

## Year 2, Semester 2 (60 cp)

Dean's Scholars Program enrichment unit:

SCB501-2 Research Project for Dean's Scholars  
Normal BMaths and BAppSc(Hons) units:  
BMaths Coursework (48 cp)

## Year 3, Semester 1 (60 cp) and Semester 2 (60 cp)

Normal BMaths and BAppSc(Hons) units:  
BMaths + BAppSc(Hons)  
Coursework/Research (24cp + 36 cp  
respectively)

Normal BMaths and BAppSc(Hons) units:  
BAppSc(Hons) Coursework/Research (60 cp)

## Note:

It is also possible to complete the program in 3.5 years using a combination of the 3 and 4 year structures. There is also flexibility for students to undertake Dean's Scholars Program enrichment units during the summer semesters between years 1 and 2, and years 2 and 3 to lighten regular semester study loads or to assist in acceleration.

## Potential Careers:

Actuary, Computer Game Programmer, Market Research Manager, Mathematician, Quantitative Analyst, Statistician.

## Graduate Certificate in Mathematical Science (MA65)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 046044G

**Course duration (full-time):** 1 semester (0.5 year)

**Course duration (part-time):** 2 semesters (1 year)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,500 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February, July or Summer Program

**International Entry:** February and July

**Total credit points:** 48

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Troy Farrell

**Discipline coordinator:** Dr Troy Farrell (Course Coordinator), Dr James McGree (Assistant Course Coordinator)

**Campus:** Gardens Point

### Overview

These courses enable graduates from any discipline to develop their knowledge and skills in one or more areas of the mathematical sciences. Strands available include mathematical modelling/applied mathematics, computational mathematics, statistics/ statistical modelling, quantitative analysis/financial mathematics and operations research.

These courses recognise that students may not have studied mathematics for some time.

### Career Outcomes

Knowledge and skills in mathematics and/or statistical techniques are increasingly in demand in many different areas, for example, quantitative analysis in the finance area; statistical and mathematical modelling in natural resources and health management; operations research in transport management and mathematics teaching.

### Entry Requirements

To be eligible for admission an applicant:

- will normally have completed an undergraduate degree in any discipline. Please note that students without prior studies in calculus (first-year level) may need to complete additional units prior to commencing the Master of Mathematical Science.

Applicants who do not meet the normal entry requirements may be permitted to enrol in the Graduate Certificate subject to approval.

### Course Design

The program of study for an individual student will be decided in consultation with the course coordinator and will take into account the student's background and area of interest within the mathematical sciences.

In the Graduate Certificate, at least 36 credit points must be taken from postgraduate mathematics units and up to 12 credit points can be taken from units other than mathematics units.

### Further Information

For further information about this course, please contact:

Troy Farrell (Course Coordinator) or James McGree (Assistant Course Coordinator)

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

### Course structure

- Total credit points: 48
- At least 36 credit points must be taken from postgraduate mathematics units.
- Up to 12 credit points can be taken from units other than mathematics units.
- The units recommended will depend upon your mathematics background from secondary school or tertiary studies, length of time since you have studied mathematics, and your areas of interest.

#### Units available:

MAN101	Statistical Data Analysis 1
MAN105	Preparatory Mathematics
MAN120	Algebra and Calculus
MAN121	Calculus and Differential Equations
MAN122	Algebra and Analytic Geometry
MAN200	Mathematical Foundations
MAN201	Mathematics
MAN210	Statistical Modelling 1
MAN220	Computational Mathematics 1
MAN281	Mathematics for Computer Graphics
MAN311	Advanced Calculus
MAN312	Linear Algebra
MAN313	Mathematics of Finance
MAN314	Statistical Modelling 2
MAN315	Operations Research 2
MAN413	Differential Equations
MAN414	Applied Statistics 2
MAN420	Computational Mathematics 2
MAN422	Mathematical Modelling
MAN461	Discrete Mathematics
MAN480	Introduction to Scientific Computation
MAN521	Applied Mathematics 3
MAN522	Computational Mathematics 3
MAN524	Statistical Inference
MAN525	Operations Research 3A

MAN533	Statistical Techniques
MAN536	Time Series Analysis
MAN613	Partial Differential Equations
MAN623	Financial Mathematics
MAN624	Applied Statistics 3
MAN625	Operations Research 3B
MAN672	Advanced Mathematical Modelling
MAN700	Project
MAN717	Minor Project
MAN761	Analysis
MAN764	Applied Mathematical Modelling
MAN765	Bayesian Data Analysis
MAN766	Applied Time Series Analysis
MAN768	Advanced Techniques in Operations Research
MAN769	Mathematics of Finance
MAN771	Computational Mathematics 4
MAN774	Perturbation Methods
MAN775	Statistical Modelling of Financial Processes
MAN777	Mathematics of Fluid Flow
MAN778	Applications of Discrete Mathematics

**Potential Careers:**

Actuary, Mathematician, Quantitative Analyst, Statistician.

## Graduate Diploma in Mathematical Science (MA75)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 046041M

**Course duration (full-time):** 2 semesters (1 year)

**Course duration (part-time):** 4 semesters (2 years)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,125 (indicative) per semester

**Domestic Entry:** February, July or Summer Program

**International Entry:** February and July

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Troy Farrell

**Discipline coordinator:** Dr Troy Farrell (Course Coordinator), Dr James McGree (Assistant Course Coordinator)

**Campus:** Gardens Point

### Overview

These courses enable graduates from any discipline to develop their knowledge and skills in one or more areas of the mathematical sciences. Strands available include mathematical modelling/applied mathematics, computational mathematics, statistics/statistical modelling, quantitative analysis/financial mathematics and operations research. This course recognises that students may not have studied mathematics for some time.

### Career Outcomes

Knowledge and skills in mathematics and/or statistical techniques are increasingly in demand in many different areas, for example, quantitative analysis in the finance area; statistical and mathematical modelling in natural resources and health management; operations research in transport management, and mathematics teaching.

### Entry Requirements

To be eligible for admission an applicant:

- will normally have completed an undergraduate degree in any discipline. Please note that students without prior studies in calculus (first-year level) may need to complete additional units prior to commencing the Master of Mathematical Science.

Applicants who do not meet the normal entry requirements may be permitted to enrol in the Graduate Certificate subject to approval.

### Course Design

The program of study for an individual student will be decided in consultation with the course coordinator and will take into account the student's background and area of interest within the mathematical sciences.

In the Graduate Diploma, at least 24 credit points must be

taken from advanced postgraduate mathematics units. Up to 24 credit points can be taken from units other than mathematics units and there is a limit of 36 credit points from project units.

### Prior to Enrolment

Potential applicants for this course are advised to contact the Course Coordinator prior to submitting their application to discuss their plans. International students in particular, should be aware that full-time enrolment of at least 36 credit points per semester may not be possible. This is due to the need to meet unit prerequisites. Units are not offered externally although units do have varying amounts of on-line material available. Lectures, tutorials and computer-based practicals may be timetabled during the day or early evening.

### Further Information

For further information about this course, please contact:

Troy Farrell (Course Coordinator) or James McGree (Assistant Course Coordinator)

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### MA75 Course structure

- Total credit points: 96
- At least 24 credit points must be taken from advanced postgraduate mathematics units.
- Up to 24 credit points can be taken from units other than mathematics units.
- The units recommended will depend upon your mathematics background from secondary school or tertiary studies, length of time since you have studied mathematics, and your areas of interest.

#### Mathematics Units available:

MAN101	Statistical Data Analysis 1
MAN121	Calculus and Differential Equations
MAN122	Algebra and Analytic Geometry
MAN200	Mathematical Foundations
MAN201	Mathematics
MAN210	Statistical Modelling 1
MAN220	Computational Mathematics 1
MAN281	Mathematics for Computer Graphics
MAN311	Advanced Calculus
MAN312	Linear Algebra
MAN313	Mathematics of Finance
MAN314	Statistical Modelling 2
MAN315	Operations Research 2
MAN413	Differential Equations
MAN414	Applied Statistics 2
MAN420	Computational Mathematics 2
MAN422	Mathematical Modelling

# FACULTY OF SCIENCE AND TECHNOLOGY

MAN461	Discrete Mathematics		Advanced Postgraduate Mathematics Units:
MAN480	Introduction to Scientific Computation	MAN521	Applied Mathematics 3
	ADVANCED POSTGRADUATE MATHEMATICS UNITS:	MAN613	Partial Differential Equations
MAN521	Applied Mathematics 3	MAN672	Advanced Mathematical Modelling
MAN522	Computational Mathematics 3	MAN761	Analysis
MAN524	Statistical Inference	MAN764	Applied Mathematical Modelling
MAN525	Operations Research 3A	MAN774	Perturbation Methods
MAN533	Statistical Techniques	MAN777	Mathematics of Fluid Flow
MAN536	Time Series Analysis		Prerequisite Units:
MAN613	Partial Differential Equations	MAN121	Calculus and Differential Equations
MAN623	Financial Mathematics	MAN122	Algebra and Analytic Geometry
MAN624	Applied Statistics 3	MAN220	Computational Mathematics 1
MAN625	Operations Research 3B	MAN311	Advanced Calculus
MAN672	Advanced Mathematical Modelling	MAN312	Linear Algebra
MAN700	Project	MAN413	Differential Equations
MAN717	Minor Project	MAN422	Mathematical Modelling
MAN761	Analysis		
MAN764	Applied Mathematical Modelling		
MAN765	Bayesian Data Analysis		
MAN766	Applied Time Series Analysis		
MAN768	Advanced Techniques in Operations Research		
MAN769	Mathematics of Finance		
MAN771	Computational Mathematics 4		
MAN774	Perturbation Methods		
MAN775	Statistical Modelling of Financial Processes		
MAN777	Mathematics of Fluid Flow		
MAN778	Applications of Discrete Mathematics		
MAN787-1	Project		
MAN787-2	Project		
MAN787-3	Project		

## Course structure Note

If you wish to take any of the project units you will need to discuss your plans and the proposed content with the Course Coordinator.

## Strand Information

The following strand information is to assist you with unit selection. You do not have to enrol in all units listed for a strand. The prerequisite units are given to guide you. Depending on your background, you may have already covered some of the units listed (or equivalent units) in your undergraduate studies. If you have not studied any mathematics for some time, you may need to undertake one or two units prior to commencing those listed in the strand information.

### Mathematical Modelling/Applied Mathematics

### Computational Mathematics

	Advanced Postgraduate Mathematics Units:
MAN521	Applied Mathematics 3
MAN522	Computational Mathematics 3
MAN771	Computational Mathematics 4
	Prerequisite Units:
MAN121	Calculus and Differential Equations
MAN122	Algebra and Analytic Geometry
MAN220	Computational Mathematics 1
MAN311	Advanced Calculus
MAN312	Linear Algebra
MAN420	Computational Mathematics 2
MAN480	Introduction to Scientific Computation

### Operations Research

	Advanced Postgraduate Mathematics Units:
MAN525	Operations Research 3A
MAN625	Operations Research 3B
MAN768	Advanced Techniques in Operations Research
	Prerequisite Units:
MAN121	Calculus and Differential Equations
MAN122	Algebra and Analytic Geometry
MAN210	Statistical Modelling 1
MAN315	Operations Research 2

### Statistics/Statistical Modelling

	Advanced Postgraduate Mathematics Units:
MAN524	Statistical Inference
MAN533	Statistical Techniques
MAN536	Time Series Analysis
MAN624	Applied Statistics 3
MAN765	Bayesian Data Analysis



MAN766	Applied Time Series Analysis
MAN775	Statistical Modelling of Financial Processes
	Prerequisite Units:
MAN101	Statistical Data Analysis 1
MAN121	Calculus and Differential Equations
MAN122	Algebra and Analytic Geometry
MAN210	Statistical Modelling 1
MAN314	Statistical Modelling 2
MAN414	Applied Statistics 2

#### Quantitative Analysis/Financial Mathematics

Advanced Postgraduate Mathematics Units:

MAN524	Statistical Inference
MAN533	Statistical Techniques
MAN536	Time Series Analysis
MAN623	Financial Mathematics
MAN624	Applied Statistics 3
MAN765	Bayesian Data Analysis
MAN766	Applied Time Series Analysis
MAN769	Mathematics of Finance
MAN775	Statistical Modelling of Financial Processes
	Prerequisite Units:
MAN101	Statistical Data Analysis 1
MAN121	Calculus and Differential Equations
MAN122	Algebra and Analytic Geometry
MAN210	Statistical Modelling 1
MAN313	Mathematics of Finance
MAN314	Statistical Modelling 2
MAN413	Differential Equations
MAN414	Applied Statistics 2

#### Other Units:

MAN281	Mathematics for Computer Graphics
MAN461	Discrete Mathematics
MAN778	Applications of Discrete Mathematics

#### Mathematics for Secondary Teaching

Students interested in teaching would usually select across a range of areas of mathematics and statistics, but must take at least 24 credit points from advanced postgraduate mathematics units.

Students could select up to 24 credit points from units offered by the Faculty of Education related to the teaching of mathematics.

#### Potential Careers:

Actuary, Mathematician, Quantitative Analyst, Statistician.

## **Master of Mathematical Science (MA85)**

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 046042K

**Course duration (full-time):** 3 semesters (1.5 years)

**Course duration (part-time):** 6 semesters (3 years)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,625 (indicative) per semester

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Domestic Entry:** February, July or Summer Program

**International Entry:** February and July

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Mr James McGree

**Discipline coordinator:** Dr Troy Farrell (Course Coordinator), Dr James McGree (Assistant Course Coordinator)

**Campus:** Gardens Point

### **Overview**

This course enables graduates from any discipline to develop their knowledge and skills in one or more areas of the mathematical sciences. Strands available include mathematical modelling/applied mathematics, computational mathematics, statistics/statistical modelling, quantitative analysis/financial mathematics and operations research. This course recognises that students may not have studied mathematics for some time.

### **Career Outcomes**

Knowledge and skills in mathematics and/or statistical techniques are increasingly in demand in many different areas, for example, quantitative analysis in the finance area; statistical and mathematical modelling in natural resources and health management; operations research in transport management, and mathematics teaching.

### **Entry Requirements**

To be eligible for admission an applicant:

- will normally have completed an undergraduate degree in any discipline. Please note that students without prior studies in calculus (first-year level) may need to complete additional units prior to commencing the Master of Mathematical Science.

Applicants who do not meet the normal entry requirements may be permitted to enrol in the Graduate Certificate subject to approval.

### **Course Design**

The program of study for an individual student will be decided in consultation with the course coordinator and will take into account the student's background and area of interest within the mathematical sciences.

For the Masters program, at least 36 credit points must be taken from advanced postgraduate mathematics units. Up

to 24 credit points can be taken from units other than mathematics units and there is a limit of 48 credit points from project units.

### **Prior to Enrolment**

Potential applicants for this course are advised to contact the Course Coordinator prior to submitting their application to discuss their plans. International students in particular, should be aware that full-time enrolment of at least 36 credit points per semester may not be possible. This is due to the need to meet unit prerequisites. Units are not offered externally although units do have varying amounts of on-line material available. Lectures, tutorials and computer-based practicals may be timetabled during the day or early evening.

### **Further Information**

For further information about this course, please contact:

Troy Farrell (Course Coordinator) or James McGree (Assistant Course Coordinator)

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

### **MA85 Course structure**

- Total credit points: 144
- At least 36 credit points must be taken from advanced postgraduate mathematics units.
- Up to 24 credit points can be taken from units other than mathematics units.
- The units recommended will depend upon your mathematics background from secondary school or tertiary studies, length of time since you have studied mathematics, and your areas of interest.

#### **Units available:**

MAN101	Statistical Data Analysis 1
MAN121	Calculus and Differential Equations
MAN122	Algebra and Analytic Geometry
MAN200	Mathematical Foundations
MAN201	Mathematics
MAN210	Statistical Modelling 1
MAN220	Computational Mathematics 1
MAN281	Mathematics for Computer Graphics
MAN311	Advanced Calculus
MAN312	Linear Algebra
MAN313	Mathematics of Finance
MAN314	Statistical Modelling 2
MAN315	Operations Research 2
MAN413	Differential Equations
MAN414	Applied Statistics 2
MAN420	Computational Mathematics 2
MAN422	Mathematical Modelling
MAN461	Discrete Mathematics

# FACULTY OF SCIENCE AND TECHNOLOGY

MAN480	Introduction to Scientific Computation
	ADVANCED POSTGRADUATE MATHEMATICS UNITS:
MAN521	Applied Mathematics 3
MAN522	Computational Mathematics 3
MAN524	Statistical Inference
MAN525	Operations Research 3A
MAN533	Statistical Techniques
MAN536	Time Series Analysis
MAN613	Partial Differential Equations
MAN623	Financial Mathematics
MAN624	Applied Statistics 3
MAN625	Operations Research 3B
MAN672	Advanced Mathematical Modelling
MAN700	Project
MAN717	Minor Project
MAN761	Analysis
MAN764	Applied Mathematical Modelling
MAN765	Bayesian Data Analysis
MAN766	Applied Time Series Analysis
MAN768	Advanced Techniques in Operations Research
MAN769	Mathematics of Finance
MAN771	Computational Mathematics 4
MAN774	Perturbation Methods
MAN775	Statistical Modelling of Financial Processes
MAN777	Mathematics of Fluid Flow
MAN778	Applications of Discrete Mathematics
MAN787-1	Project
MAN787-2	Project
MAN787-3	Project

## Course structure Note

If you wish to take any of the project units you will need to discuss your plans and the proposed content with the Course Coordinator.

## Strand Information

The following strand information is to assist you with unit selection. You do not have to enrol in all units listed for a strand. The prerequisite units are given to guide you. Depending on your background, you may have already covered some of the units listed (or equivalent units) in your undergraduate studies. If you have not studied any mathematics for some time, you may need to undertake one or two units prior to commencing those listed in the strand information.

### Mathematical Modelling/Applied Mathematics

Advanced Postgraduate Mathematics Units:

MAN521	Applied Mathematics 3
MAN613	Partial Differential Equations
MAN672	Advanced Mathematical Modelling
MAN761	Analysis
MAN764	Applied Mathematical Modelling
MAN774	Perturbation Methods
MAN777	Mathematics of Fluid Flow
	Prerequisite Units:
MAN121	Calculus and Differential Equations
MAN122	Algebra and Analytic Geometry
MAN220	Computational Mathematics 1
MAN311	Advanced Calculus
MAN312	Linear Algebra
MAN413	Differential Equations
MAN422	Mathematical Modelling

### Computational Mathematics

Advanced Postgraduate Mathematics Units:

MAN521	Applied Mathematics 3
MAN522	Computational Mathematics 3
MAN771	Computational Mathematics 4
	Prerequisite Units:
MAN121	Calculus and Differential Equations
MAN122	Algebra and Analytic Geometry
MAN220	Computational Mathematics 1
MAN311	Advanced Calculus
MAN312	Linear Algebra
MAN420	Computational Mathematics 2
MAN480	Introduction to Scientific Computation

### Operations Research

Advanced Postgraduate Mathematics Units:

MAN525	Operations Research 3A
MAN625	Operations Research 3B
MAN768	Advanced Techniques in Operations Research
	Prerequisite Units:
MAN121	Calculus and Differential Equations
MAN122	Algebra and Analytic Geometry
MAN210	Statistical Modelling 1
MAN315	Operations Research 2

### Statistics/Statistical Modelling

Advanced Postgraduate Mathematics Units:

MAN524	Statistical Inference
MAN533	Statistical Techniques
MAN536	Time Series Analysis
MAN624	Applied Statistics 3
MAN765	Bayesian Data Analysis
MAN766	Applied Time Series Analysis

MAN775	Statistical Modelling of Financial Processes
	Prerequisite Units:
MAN101	Statistical Data Analysis 1
MAN121	Calculus and Differential Equations
MAN122	Algebra and Analytic Geometry
MAN210	Statistical Modelling 1
MAN314	Statistical Modelling 2
MAN414	Applied Statistics 2

#### Quantitative Analysis/Financial Mathematics

Advanced Postgraduate Mathematics Units:

MAN524	Statistical Inference
MAN533	Statistical Techniques
MAN536	Time Series Analysis
MAN623	Financial Mathematics
MAN624	Applied Statistics 3
MAN765	Bayesian Data Analysis
MAN766	Applied Time Series Analysis
MAN769	Mathematics of Finance
MAN775	Statistical Modelling of Financial Processes
	Prerequisite Units:
MAN101	Statistical Data Analysis 1
MAN121	Calculus and Differential Equations
MAN122	Algebra and Analytic Geometry
MAN210	Statistical Modelling 1
MAN313	Mathematics of Finance
MAN314	Statistical Modelling 2
MAN413	Differential Equations
MAN414	Applied Statistics 2

#### Other Units:

MAN281	Mathematics for Computer Graphics
MAN461	Discrete Mathematics
MAN778	Applications of Discrete Mathematics

### Mathematics for Secondary Teaching

Students interested in teaching would usually select across a range of areas of mathematics and statistics, but must take at least 36 credit points from advanced postgraduate mathematics units.

Students can select up to 24 credit points from units offered by the Faculty of Education related to the teaching of mathematics.

### Potential Careers:

Actuary, Mathematician, Quantitative Analyst, Statistician.

## Bachelor of Applied Science - Medical Radiation Technology (Medical Imaging Technology) (PH38)

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 037588F

**Course duration (full-time):** 3 Years

**Domestic fees (indicative):** 2011: CSP \$3,878 (indicative) per semester

**International Fees (indicative):** 2011: \$11,250 (indicative) per semester

**Domestic Entry:** February. For 2011 entry, please refer to ST30 Bachelor of Medical Imaging Science

**International Entry:** February - IELTS of 7.0 with no sub-score less than 7.0, or its equivalent Occupational English Test

**QTAC code:** 418182

**Past rank cut-off:** 96

**Past OP cut-off:** 3

**Assumed knowledge:** English (4, SA), Maths B (4, SA) and Physics (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 288

**Standard credit points per full-time semester:** 48

**Course coordinator:** Associate Professor Pam Rowntree

**Discipline coordinator:** Mrs Debbie Starkey

**Campus:** Gardens Point

### Overview

QUT is currently the only university in Queensland to offer a medical imaging technology undergraduate qualification. This course leads to employment as a medical imaging technologist or diagnostic radiographer, a rewarding profession with excellent employment prospects. Radiographers play an important role in the health-care sector, providing vital information to assist with the diagnosis and treatment of medical disorders.

### Why Choose this Course

Excellent employment prospects can be expected as QUT works closely with the health sector to ensure that the number of graduates is in line with demand. In recent years, more than 95 per cent of graduates gained full-time employment within four months of graduation. This course is designed in consultation with clinical staff from radiology departments, so you will gain advanced knowledge of new diagnostic techniques and equipment used in the workplace. QUT's well-equipped X-ray laboratories allow you to graduate with experience using equipment and techniques similar to those used in industry.

Clinical placements in hospitals and private practices provide an opportunity to use your skills in a real workplace.

### Career Outcomes

As a radiographer you will play a key role in patient care by providing referring medical practitioners with additional diagnostic information to assist in patient management and treatment. You may become a team member in a radiology department in a hospital, private radiology practice or health

department, or you may be employed in medical equipment sales.

### Professional Recognition

On graduation, you will be eligible for provisional accreditation by the Australian Institute of Radiography. Full accreditation requires the completion of an additional professional development year of clinical experience.

**English Language Skills** Applicable to health practitioners applying for registration)

All applicants must be able to demonstrate English language skills at IELTS academic level 7 or equivalent. Test results from examinations will generally need to be obtained within two years prior to applying for registration.

### Other Course Requirements

You are required to undertake clinical experience in hospital departments and private practices during the course and, as a result, will have direct patient contact during the clinical placement, and may be exposed to blood and body fluids of patients. You must be vaccinated for Hepatitis B and must provide a postvaccination

pathological report or similar certification showing proof of immunity

prior to undertaking the first clinical placement.

Cardiopulmonary resuscitation (CPR) certification is also required to undertake clinical placements. In addition, you must satisfy criteria related to health status. You should declare height, physical disabilities, treatment of nervous condition, any drug/alcohol disorder, and a current immunisation status (specifically Hepatitis B) as part of the online enrolment process.

A current Blue Card authorised with QUT may be required prior to commencing the clinical placement components of this course. For more information visit [www.bluecard.qut.edu.au](http://www.bluecard.qut.edu.au), and ensure that you allow adequate time for processing your application and issuing of the card in order to avoid clinical experience delays.

### Your Course

#### Year 1

You will develop a solid grounding in anatomy and medical physics along with introductory knowledge of patient health-care needs, professional communication techniques and ethical, legal and accountability issues. Introductory studies in medical radiation technology are complemented with practical sessions in QUT's medical imaging laboratories, allowing you to develop your skills in patient positioning and image production for skeletal radiography.

#### Year 2

Building on your introductory units, you will progress to more advanced and specialised study of human anatomy including diseases of the organ systems, obstetrics, gynaecology, central nervous system, paediatrics and geriatrics. Specialised practical sessions in QUT's facilities will focus on regional anatomy of the head, neck, upper limb and lower limb. You will learn about the specialist



techniques of mammography, tomography, trauma radiography, and ward and operating theatre radiography. In each semester you will have an opportunity to practise your skills in a real workplace through placements in clinical departments.

### Year 3

You will continue to develop your skills through clinical placements in hospitals or private practices. At QUT, you will undertake theoretical and practical classes in advanced techniques such as angiography, and interventional techniques. In-depth knowledge of the uses and applications of X-ray computed tomography (CT) and magnetic resonance imaging (MRI) will be covered along with valuable techniques in digital image processing. You will round off your professional education by learning about the techniques used in professional practice including image formation evaluation and image interpretation.

### Majors

There are two majors in the Bachelor of Applied Science - Medical Radiation Technology. Students choose either Radiotherapy Technology or Medical Imaging Technology

### OP Guarantee

The OP Guarantee does not apply to this program.

### Further Information

For Further information on the course, please contact the following:

#### **Medical Imaging Technology Coordinator**

Mrs Debbie Starkey  
Phone: +61 7 3138 2596  
Email: d.starkey@qut.edu.au

#### **Course Coordinator**

Associate Professor Pam Rowntree  
Phone: +61 7 3138 2346  
Email: p.rowntree@qut.edu.au

### Course structure for students who commenced in 2009 and 2010

#### Year 1, Semester 1

LSB145	Anatomy 1
PCB007	Patient Care in Professional Practice
PCB178	Principles of Medical Radiations
PCB272	Radiation Physics

#### Year 1, Semester 2

LSB245	Anatomy 2 and Introductory Pathology
PCB276	General Radiography 1
PCB277	Radiographic Practice
PCB675	Radiation Safety and Biology

#### Year 2, Semester 1

LSB321	Systematic Pathology
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LSB345	Regional & Imaging Anatomy 1
PCB375-1	Radiographic Equipment
PCB377	General Radiography 2
PCB379	Clinical Radiography 1

#### Year 2, Semester 2

LSB445	Regional and Imaging Anatomy 2
PCB375-2	Radiographic Equipment
PCB476	Special Procedures
PCB477	Complementary Imaging Techniques
PCB479	Clinical Radiography 2

#### Year 3, Semester 1

PCB567	Advanced Radiographic Technique 1
PCB581-1	Clinical Radiography 3
PCB593	Digital Image Processing
PCB672-1	Project
PCB681	Computed Tomography Imaging

#### Year 3, Semester 2

PCB581-2	Clinical Radiography 3
PCB667	Advanced Radiographic Technique 2
PCB672-2	Project
PCB682	Magnetic Resonance Imaging

### Course structure for students who commenced prior to 2009

#### Year 1, Semester 1

LSB145	Anatomy 1
PCB007	Patient Care in Professional Practice
PCB107	Physics and Quantitative Techniques
PCB178	Principles of Medical Radiations

#### Year 1, Semester 2

LSB245	Anatomy 2 and Introductory Pathology
PCB272	Radiation Physics
PCB276	General Radiography 1
PCB277	Radiographic Practice

#### Year 2, Semester 1

LSB321	Systematic Pathology
LSB345	Regional & Imaging Anatomy 1
PCB375-1	Radiographic Equipment
PCB377	General Radiography 2
PCB379	Clinical Radiography 1

#### Year 2, Semester 2

LSB445	Regional and Imaging Anatomy 2
PCB375-2	Radiographic Equipment
PCB476	Special Procedures

PCB477 Complementary Imaging Techniques

PCB479 Clinical Radiography 2

**Year 3, Semester 1**

PCB567 Advanced Radiographic Technique 1

PCB580-1 Clinical Radiography 3

PCB593 Digital Image Processing

PCB672-1 Project

PCB681 Computed Tomography Imaging

**Year 3, Semester 2**

PCB580-2 Clinical Radiography 3

PCB667 Advanced Radiographic Technique 2

PCB672-2 Project

PCB675 Radiation Safety and Biology

PCB682 Magnetic Resonance Imaging

**Potential Careers:**

Medical Imaging Technologist, Radiographer.

## Bachelor of Applied Science - Medical Radiation Technology (Radiotherapy Technology) (PH38)

**Year offered:** 2011

**Admissions:** No

**CRICOS code:** 037588F

**Course duration (full-time):** 3 Years

**Domestic fees (indicative):** 2011: CSP \$2,671 (indicative) per semester

**International Fees (indicative):** 2011: \$11,250 (indicative) per semester

**Domestic Entry:** February. For 2011 entry, please refer to ST31 Bachelor of Radiation Therapy

**QTAC code:** 418192

**Past rank cut-off:** 94 and a successful questionnaire (see Additional Entry Requirements)

**Past OP cut-off:** 4 and a successful questionnaire (see Additional Entry Requirements)

**Assumed knowledge:** English (4, SA), Maths B (4, SA) and Physics (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 288

**Standard credit points per full-time semester:** 48

**Course coordinator:** Associate Professor Pam Rowntree

**Campus:** Gardens Point

### Overview

QUT is currently the only university in Queensland to offer a radiotherapy technology undergraduate qualification. This course leads to employment as a radiation therapist, assisting cancer patients at the most difficult time in their lives.

### Why Choose this Course

QUT works closely with the health sector in an effort to ensure that the number of graduates is in line with demand. In recent years, more than 95 per cent of graduates gained full-time employment within four months of graduation.

This course is designed in consultation with clinical staff from radiation oncology departments, so you will gain advanced knowledge of new treatment techniques and equipment used in the workplace. QUT's well equipped laboratories allow you to graduate with experience using treatment planning equipment and techniques similar to those used in industry. Close links with local oncology departments allow you to complete practical work and clinical placements using specialised, state-of-the-art radiotherapy equipment.

### Career Outcomes

As a radiation therapist in a radiotherapy department of a major hospital or private institution, you may become a member of a team treating cancer patients and be responsible for planning and delivering prescribed radiation doses.

### Professional Recognition

On graduation, you will be eligible for provisional accreditation by the Australian Institute of Radiography (AIR). Full accreditation requires the completion of an additional professional development year of clinical experience.

**English Language Skills** (Applicable to health practitioners applying for registration)

All applicants must be able to demonstrate English language skills at IELTS academic level 7 or equivalent. Test results from examinations will generally need to be obtained within two years prior to applying for registration.

### Other Majors

See also the separate entry for the following major in this course: Bachelor of Applied Science - Medical Radiation Technology (Medical Imaging Technology).

### Early Closing Date

Late QTAC applications and changes of preference for this program close **26 November 2010**.

### International Student Entry

This course is not available for international student entry.

### Other Course Requirements

You will be required to undertake clinical experience in hospital departments and private practices during the course and, as a result, will have direct patient contact during your placement and may be exposed to blood and body fluids of patients. You must be vaccinated for Hepatitis B and must provide a post-vaccination pathological report or similar certification showing proof of immunity, prior to undertaking the first clinical placement.

Cardiopulmonary resuscitation (CPR) certification is also required to undertake clinical placements. In addition, you should satisfy criteria related to health status, including declaration of height, physical disabilities, treatment of nervous condition, any drug/alcohol disorder and a current immunisation status (specifically Hepatitis B) as part of the online enrolment process.

**Blue Card:** A current blue card authorised with QUT may be required prior to commencing the clinical placement components of this course. For more information visit [www.bluecard.qut.edu.au](http://www.bluecard.qut.edu.au), and ensure that you allow adequate time for processing your application and issuing of the card in order to avoid clinical experience delays.

### Your Course

#### Year 1

You will develop a solid grounding in anatomy and medical physics along with introductory knowledge of patient health-care needs, professional communication techniques and ethical, legal and accountability issues. Introductory studies in medical radiation and radiotherapy techniques are complemented with practical sessions using equipment in clinical departments. You will learn a range of skills including patient data acquisition, radiation dosimetry and the basic techniques of treatment

delivery including beam direction and beam defining devices.

### **Year 2**

You will progress to further studies in anatomy and pathology as well as the planning of complex techniques like photon therapy, electron therapy, and megavoltage therapy, including techniques for specific sites. The use of computer software to assist with the optimisation of isodose distributions will be covered along with issues related to the interaction of radiation with tissue, dose measurement and related quality assurance procedures. You will undertake practical exercises in hospital clinical departments along with your first clinical placement period, allowing you to gain real experience in a working environment.

### **Year 3**

You will continue to develop your skills through clinical placements in hospitals and practical classes using equipment in clinical settings. You will cover the techniques of medical imaging used in the detection of cancer, along with future directions of three dimensional treatment planning. You will progress to more complex and specialised techniques for child patients and patients with communicable disease, along with the latest developments and techniques complementary to the modern radiotherapy treatment of cancer. You will learn important information about the biological effects of ionising radiation and the philosophy and protocol in radiation protection and quality assurance.

### **Further Information**

For further information about this course, please contact:

#### ***Radiotherapy Technology Coordinator***

Mrs Julie Burbery  
Phone: +61 7 3138 2273  
Email: julie.burbery@qut.edu.au

#### ***Course Coordinator***

Associate Professor Pam Rowntree  
Phone: +61 7 3138 2346  
Email: p.rowntree@qut.edu.au

### **Course structure for students who commenced in 2009 and 2010**

#### **Year 1, Semester 1**

LSB145	Anatomy 1
PCB007	Patient Care in Professional Practice
PCB178	Principles of Medical Radiations
PCB272	Radiation Physics

#### **Year 1, Semester 2**

LSB245	Anatomy 2 and Introductory Pathology
PCB286	Treatment Planning 1
PCB287	Radiation Therapy 1
PCB675	Radiation Safety and Biology

#### **Year 2, Semester 1**

LSB321	Systematic Pathology
LSB345	Regional & Imaging Anatomy 1
PCB389	Clinical Radiotherapy 1
PCB396	Treatment Planning 2
PCB397-1	Radiation Therapy 2

#### **Year 2, Semester 2**

LSB445	Regional and Imaging Anatomy 2
PCB397-2	Radiation Therapy 2
PCB489	Clinical Radiotherapy 2
PCB495	Treatment Planning 3
PCB496	Radiotherapy Equipment

#### **Year 3, Semester 1**

PCB587	Radiation Therapy 3
PCB591-1	Clinical Radiotherapy 3
PCB593	Digital Image Processing
PCB595	Treatment Planning 4
PCB672-1	Project

#### **Year 3, Semester 2**

PCB591-2	Clinical Radiotherapy 3
PCB672-2	Project
PCB687	Specialised Radiotherapy Technique
PCB695	Advanced Treatment Planning Topics

### **Course structure for students who commenced prior to 2009**

#### **Year 1, Semester 1**

LSB145	Anatomy 1
PCB007	Patient Care in Professional Practice
PCB107	Physics and Quantitative Techniques
PCB178	Principles of Medical Radiations

#### **Year 1, Semester 2**

LSB245	Anatomy 2 and Introductory Pathology
PCB272	Radiation Physics
PCB286	Treatment Planning 1
PCB287	Radiation Therapy 1

#### **Year 2, Semester 1**

LSB321	Systematic Pathology
LSB345	Regional & Imaging Anatomy 1
PCB389	Clinical Radiotherapy 1
PCB396	Treatment Planning 2
PCB397-1	Radiation Therapy 2

#### **Year 2, Semester 2**

LSB445	Regional and Imaging Anatomy 2
PCB397-2	Radiation Therapy 2

PCB489 Clinical Radiotherapy 2  
PCB495 Treatment Planning 3  
PCB496 Radiotherapy Equipment

**Year 3, Semester 1**

PCB587 Radiation Therapy 3  
PCB590-1 Clinical Radiotherapy 3  
PCB593 Digital Image Processing  
PCB595 Treatment Planning 4  
PCB672-1 Project

**Year 3, Semester 2**

PCB590-2 Clinical Radiotherapy 3  
PCB672-2 Project  
PCB675 Radiation Safety and Biology  
PCB687 Specialised Radiotherapy Technique  
PCB695 Advanced Treatment Planning Topics

**Potential Careers:**

Radiation Therapist.



## Graduate Certificate in Applied Science (Breast Ultrasound) (PH60)

**Year offered:** 2011

**Admissions:** Yes

**Course duration (part-time):** 2 semesters (1 year)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**Domestic Entry:** February

**Total credit points:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Associate Professor Pam Rowntree

**Discipline coordinator:** Gillian Kennedy (Breast Ultrasound)

**Campus:** Gardens Point

### Overview

This Graduate Certificate offers studies specifically in breast ultrasound techniques. Students are given the scientific basis for understanding, using and evaluating relevant equipment and techniques.

### Career Outcomes

This course is particularly designed for graduates and practitioners in ultrasound fields, such as radiographers, medical imaging technologists and sonographers, who wish to upgrade their qualifications and are interested in an in-depth study in this rapidly developing specialty area of ultrasound.

### Entry requirements

To be eligible for admission an applicant:

- will normally be qualified as a medical imaging technologist (diagnostic radiographer) at degree or diploma level, and
- have a minimum of two years experience in a clinical medical imaging practice.

Students must give written proof of access to suitable clinical experience for the duration of the course.

Applicants with other qualifications and appropriate experience may be permitted to enter subject to approval.

### Course Design

Students must be employed in a suitable clinical practice with adequate access to clinical experience for the duration of the course. Formal lectures are conducted in an intensive one-week block of classes at the beginning of each semester. Further academic requirements can be met without requiring on-campus attendance. Students not based in Brisbane can minimise their time on campus by completing an intensive oneweek block each semester.

### Professional Recognition

This course is accredited with the Australasian Sonographer Accreditation Registry (ASAR).

### International Student Entry

This course is not available to international students.

### Further Information

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

#### Course Coordinator

Associate Professor Pam Rowntree

Phone: +61 7 3138 2346

Email: p.rowntree@qut.edu.au

#### Discipline Coordinator

Gillian Kennedy (Breast Ultrasound)

Phone: +61 7 3138 7684

Email: gillian.kennedy@qut.edu.au

### Course structure

To complete the Graduate Certificate in Applied Science (Breast Ultrasound), students must complete the units listed below (total 48 credit points).

#### Semester 1

PCN162	Principles of Medical Ultrasound
PCN187	Specialist Studies
PCN397-1	Clinical Attachment

#### Semester 2

PCN184	Breast Imaging
PCN397-2	Clinical Attachment
NOTE:	The PCN397 clinical attachment unit is a 2 semester unit

### Potential Careers:

Sonographer.

## Graduate Certificate in Lighting (on-shore) (PH62)

**Year offered:** 2011

**Admissions:** Yes

**Course duration (part-time):** 2 semesters (1 year) (Internal and External)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**Domestic Entry:** July

**Total credit points:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Associate Professor Ian Cowling

**Campus:** Gardens Point

### Overview

The Graduate Certificate in Lighting (PH62) is designed primarily for people working in all areas of the lighting industry and engineers or architects whose work includes some aspects of lighting.

The Graduate Certificate in Lighting (PH62) provides an overview of all aspects of lighting, including light measurement, lamp properties and luminaire design, design of lighting installations, daylighting and the human factors associated with lighting.

The Graduate Diploma (PH72) then provides, through electives, the opportunity for some degree of specialisation appropriate to the student's needs and interests.

Finally the Master of Lighting (PH82) provides the opportunity for graduates of the above programs to undertake a Masters in the form of a project with some coursework.

### Entry Requirements

- Bachelor-level degree in an appropriate field, **or**
- Demonstrated minimum of three years relevant experience in the lighting industry and successful completion of one or more recognised introductory courses in lighting as determined by the course coordinator.

### Course Design

Graduate Certificate students will undertake four units (12 credit points each) covering the perception, specification and measurement of light, lamp and luminaire design, lighting design, sustainability issues and human factors.

### Further Information

#### Course Coordinator

Associate Professor Ian Cowling

Phone: +61 7 3138 2592

Email: i.cowling@qut.edu.au

### Course structure - Part-time

#### Year 1, Semester 2 (July to October)

PCN121 Vision Colour and Photometry

PCN124 Lamps and Luminaires

#### Year 2, Semester 1 (February to June)

PCN122 Lighting Design

PCN123 Sustainability and Human Factors

**NOTES:** PH62 is offered part-time comprising a lecture/tutorial format, and where appropriate practical and field work. Some units will have a significant computer-design type component and all units will incorporate learning through assignment work, all of which will be incorporated into the assessment program. Most units in the internal mode will be offered in block format on weekends.

Domestic students in the Graduate Certificate in Lighting (PH62) will be invited, on successful completion of 48 credit points, to continue with studies in the Graduate Diploma in Lighting (PH72), or can enrol directly in Master of Lighting (PH82).

International students wishing to change courses should consult International Student Business Services.

### Potential Careers:

Architect, Electrical Contractor, Electrical Engineer, Energy Consultant, Industrial Designer, Landscape Architect, Lighting Designer, Lighting Technician, Luminaire Designer, Physicist, Sales Person, Scientist, Theatre Lighting.

## Graduate Diploma in Applied Science (Medical Physics) (PH71)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 020315D

**Course duration (full-time):** 2 semesters (1 year)

**Course duration (part-time):** 4 semesters (2 years)

**Domestic fees (indicative):** 2011: CSP \$3,878 (indicative) per semester

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Andrew Fielding

**Campus:** Gardens Point

### Overview

These courses deal with well-established and emerging areas of medical and health physics including clinical measurement, computing, health physics, instrumentation, medical electronics, medical imaging, physiological monitoring, physics of radiotherapy, radiobiology, and radiological imaging sciences. The coursework also contains an introduction to the clinical sciences.

### Career Outcomes

Graduates can seek employment in hospitals, health departments, tertiary institutions and medical instrumentation companies. Depending on the field of employment, graduates may be known as a medical physicist, health physicist or bio-engineer.

Professional medical/health physicists:

- apply electronic tools and medical software, ultrasonics, radiation and computers to clinical and environmental problems
- monitor the environment to maintain acceptable standards in the workplace and the community
- apply fundamental physical research in development programs
- are responsible for calibration, care and maintenance of instruments and apparatus.

### Entry Requirements

A bachelor degree in Physics or equivalent qualification, or other evidence of qualifications that satisfactorily demonstrate that the applicant possesses the capacity to pursue the course of study.

### Course Design

Stage 1— Graduate Diploma (PH71) comprises assessed coursework such as advanced lectures, seminars, reading units or independent study. Full-time students will need an average of 14 hours a week of formal contact (seven hours for parttime students). Students can graduate with a Graduate Diploma in Medical Physics after satisfactory completion of Stage 1.

Stage 2— Master of Applied Science (PH80) students undertake a program of supervised research and investigation that can be completed at QUT or in a suitable external institution.

### Professional Recognition

The course is accredited by the Australasian College of Physical Sciences and Engineers in Medicine.

### Further Information

For further information about this course, please contact:

Dr Andrew Fielding

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### Course structure - First Semester Entry - Full-time Course

#### Year 1, Semester 1 (February to June)

LSB142	Human Anatomy and Physiology
PCN113	Radiation Physics
PCN114	Microprocessors and Instrumentation
PCN211	Physics of Medical Imaging

#### Year 1, Semester 2 (July to October)

PCN112	Medical Imaging Science
PCN212	Radiotherapy
PCN214	Health and Occupational Physics
PCN218	Research Methodology and Professional Studies

### Course structure - First Semester Entry - Part-time Course

#### Year 1, Semester 1 (February to June)

LSB142	Human Anatomy and Physiology
PCN113	Radiation Physics

#### Year 1, Semester 2 (July to October)

PCN112	Medical Imaging Science
PCN212	Radiotherapy

#### Year 2, Semester 1 (February to June)

PCN114	Microprocessors and Instrumentation
PCN211	Physics of Medical Imaging

#### Year 2, Semester 2 (July to October)

PCN214	Health and Occupational Physics
PCN218	Research Methodology and Professional Studies

### Course structure - Mid-Year Entry - Full-time Course

#### Year 1, Semester 2 (July to October)

LSB182	Bioscience 1
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PCN112 Medical Imaging Science  
PCN212 Radiotherapy  
PCN214 Health and Occupational Physics

**Year 2, Semester 1 (February to June)**

PCN113 Radiation Physics  
PCN114 Microprocessors and Instrumentation  
PCN218 Research Methodology and Professional Studies  
PCN211 Physics of Medical Imaging

**Course structure - Mid-Year Entry - Part-time Course**

**Year 1, Semester 2 (July to October)**

LSB182 Bioscience 1  
PCN112 Medical Imaging Science

**Year 2, Semester 1 (February to June)**

PCN113 Radiation Physics  
PCN114 Microprocessors and Instrumentation

**Year 2, Semester 2 (July to October)**

PCN212 Radiotherapy  
PCN214 Health and Occupational Physics

**Year 3, Semester 1 (February to June)**

PCN211 Physics of Medical Imaging  
PCN218 Research Methodology and Professional Studies

**Potential Careers:**

Health Physicist, Medical Equipment Sales, Medical Physicist.

## **Graduate Diploma in Applied Science (Medical Ultrasound) (PH71)**

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 020315D

**Course duration (part-time):** 4 semesters (2 years)

**Domestic fees (indicative):** 2011: CSP \$3,878 (indicative) per semester

**Domestic Entry:** February

**Total credit points:** 96

**Standard credit points per part-time semester:** 24

**Course coordinator:** Chandeeep Bakshi

**Discipline coordinator:** Mr. Chandeeep Bakshi

**Campus:** Gardens Point

### **Overview**

The Graduate Diploma and Master of Applied Science courses in medical ultrasound give students the scientific basis for understanding, using and evaluating relevant equipment and techniques.

### **Career Outcomes**

This course is particularly designed for graduates and practitioners in medical ultrasound fields, such as radiographers, and medical imaging and nuclear medicine technologists, who wish to upgrade their qualifications and depth of knowledge in this rapidly developing area.

### **Entry Requirements**

Students will normally be qualified diagnostic radiographers or medical imaging technologists at degree or diploma level, or degree qualified nurses, and have at least two years of experience in a clinical practice. Students must give written proof of access to suitable clinical experience for the duration of the course.

### **Entry Requirements**

Students will normally be qualified diagnostic radiographers or medical imaging technologists at degree or diploma level, or degree qualified nurses, and have at least two years of experience in a clinical practice. Students must give written proof of access to suitable clinical experience for the duration of the course.

### **Course Design**

Stage 1— Graduate Diploma (PH71) takes four semesters of part-time study to complete. Students must show that they have access to suitable clinical experience for the duration of Stage 1 before commencing the degree. Lectures are conducted in intensive four- to five-week blocks in each semester. Students undertake clinical experience throughout the semester.

Stage 2— Master of Applied Science (PH80) involves completion of a research project and submission of a thesis. Students can undertake this project externally under QUT staff supervision on appointment of a suitable external supervisor. This stage takes two semesters part-time to complete after successful completion of Stage 1.

### **Professional Recognition**

This course is accredited with the Australasian Sonographer Accreditation Registry (ASAR).

### **International Student Entry**

These courses are not available to international students.

### **Further Information**

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

### **Course Coordinator**

Mr. Chandeeep Bakshi

Phone: +61 7 3138 4113

Email: [chandeeep.bakshi@qut.edu.au](mailto:chandeeep.bakshi@qut.edu.au)

### **Course structure - Part-time**

Students must complete the units listed below  
(total 96 credit points)

#### **Year 1, Semester 1**

PCN159	Ultrasonic Examination 1
PCN162	Principles of Medical Ultrasound
PCN197-1	Clinical Attachment 1

#### **Year 1, Semester 2**

PCN197-2	Clinical Attachment 1
PCN356	Ultrasonic Examination 2

#### **Year 2, Semester 1**

PCN297-1	Clinical Attachment 2
PCN355	Vascular Ultrasound
PCN357	Advanced Ultrasound Topics

#### **Year 2, Semester 2**

PCN218	Research Methodology and Professional Studies
PCN297-2	Clinical Attachment 2
NOTES	The PCN197 and PCN297 clinical attachment units are 2 semester units
	Each clinical attachment unit (ie PCN197 and PCN297) involves clinical experience in the order of 3 days per week or equivalent.

### **Potential Careers:**

Sonographer.



## Graduate Diploma in Lighting (on-shore) (PH72)

**Year offered:** 2011

**Admissions:** Yes

**Course duration (part-time):** 4 semesters (2 years) (Internal and External)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**Domestic Entry:** July

**Total credit points:** 96

**Standard credit points per part-time semester:** 24

**Course coordinator:** Associate Professor Ian Cowling

**Campus:** Gardens Point

### Overview

The Graduate Diploma in Lighting (PH72) is designed primarily for people working in all areas of the lighting industry and engineers or architects whose work includes some aspects of lighting.

The Graduate Certificate in Lighting (PH62) provides an overview of all aspects of lighting, including light measurement, lamp properties and luminaire design, design of lighting installations, daylighting and the human factors associated with lighting.

The Graduate Diploma (PH72) then provides, through electives, the opportunity for some degree of specialisation appropriate to the student's needs and interests.

Finally the Master of Lighting (PH82) provides the opportunity for graduates of the above programs to undertake a Masters in the form of a project with some coursework.

### Entry Requirements

- Bachelor-level degree in an appropriate field, **or**
- Successful completion of the Graduate Certificate in Lighting or equivalent.

### Course Design

Graduate Diploma students will undertake 24 credit points (two units) of advanced lighting design and applications studies and two other units (24 credit points) which could include at least one unit in Project Management, Project Cost and Risk Management or Quality Management.

### Further Information

For further information about this course, please contact:

Associate Professor Ian Cowling

Phone: +61 7 3138 2592

Email: i.cowling@qut.edu.au

### Course structure - Part-time

#### Year 1, Semester 2 (July to October)

PCN121 Vision Colour and Photometry

PCN124 Lamps and Luminaires

#### Year 2, Semester 1 (February to June)

PCN122 Lighting Design

PCN123 Sustainability and Human Factors

#### Year 2, Semester 2 (July to October)

PCN223 Lighting Applications

PCN222 Advanced Lighting Design

#### Year 3, Semester 1 (February to June)

PCN221 Best Practices in Lighting

PCN224 Applied Lighting

**NOTES:** PH72 is offered part-time internally and externally. The course comprises a lecture/tutorial format, and where appropriate practical and field work. Some units will have a significant computer-design type component and all units will incorporate learning through assignment work, all of which will be incorporated into the assessment program. Most units in the internal mode will be offered in block format on weekends. Students enrolling in the external mode will be required to attend QUT for 4 to 5 days per semester for intensive practical and tutorial work.

Domestic students in the Graduate Diploma in Lighting (PH72) will be invited, on successful completion of 96 credit points, to continue with studies in the Master of Lighting (PH82).

Students in the Graduate Diploma in Lighting (PH72) wishing to exit with the Graduate Certificate in Lighting (PH62) are required to submit an Application to Graduate Early with an Approved Exit Course (SRX) Form in their final semester of study.

International students wishing to change courses should consult International Student Business Services.

### Potential Careers:

Architect, Electrical Contractor, Electrical Engineer, Energy Consultant, Industrial Designer, Landscape Architect, Lighting Designer, Lighting Technician, Luminaire Designer, Physicist, Sales Person, Scientist, Theatre Lighting.

## Graduate Diploma in Lighting (off-shore) (PH73)

**Year offered:** 2011

**Admissions:** No

**Course duration (external):** 4 semesters part-time (Hong Kong)

**Domestic fees (indicative):** Off-shore Course

**International Entry:** September

**Total credit points:** 96

**Standard credit points per part-time semester:** 24

**Course coordinator:** Associate Professor Ian Cowling

**Campus:** City University of Hong Kong

### Overview

The Graduate Diploma in Lighting (PH73) is designed primarily for people working in all areas of the lighting industry and engineers or architects whose work includes some aspects of lighting.

All students in the Graduate Diploma (PH73) will have undertaken the 4 units of the Graduate Certificate in Lighting (PH63), providing an overview of all aspects of lighting, including light measurement, luminaire design, design of lighting installations, sustainability, daylighting and the human aspects associated with providing good lighting.

The Graduate Diploma (PH73) then provides, through electives, the opportunity for some degree of specialisation appropriate to the student's needs and interests.

Finally the Master of Lighting (PH83) provides the opportunity for graduates of the above programs to undertake a Masters in the form of a project with some coursework.

### Entry Requirements

(a) Bachelor level degree in an appropriate field

### OR

(b) Successful completion of PH62/PH63 Graduate Certificate in Lighting or equivalent.

*Note:* Students with relevant experience in the lighting industry or recognised educational qualifications in lighting may be granted credit to a maximum of 36 credit points.

### Course Design

Graduate Diploma students will undertake 24 credit points (two units) of advanced lighting design and applications studies and two other units (24 credit points) which could include at least one unit in Project Management, Project Cost and Risk Management or Quality.

### Contact Details

#### Course Coordinator

Associate Professor Ian Cowling

Phone: +61 7 3138 2592

Email: i.cowling@qut.edu.au

### Course structure - Part-time

#### First Semester (September to December)

PCZ121 Vision Colour and Photometry

PCZ124 Lamps and Luminaires

#### Second Semester (January to April)

PCZ122 Lighting Design

PCZ123 Sustainability and Human Factors

#### Third Semester (May to August)

PCZ222 Advanced Lighting Design

PCZ223 Lighting Applications

#### Fourth Semester (September to December)

PCZ221 Best Practices in Lighting

PCZ224 Applied Lighting

**NOTES:** PH73 is offered part-time in a combination of face-to-face lecture/tutorial/practical format, and on-line. Some units will have a computer-design type component and all units will incorporate learning through assignment work, all of which will be incorporated into the assessment program. Except for the fourth semester, the two units offered each semester will be presented sequentially. The face-to-face teaching component will be offered in block form over a weekend, usually on the first weekend of the teaching period assigned to that unit. There will then be a follow-up face-to-face session about three weekends later. In the fourth semester both units will commence at the start of the semester.

Students in the Graduate Diploma in Lighting (PH73) wishing to continue their studies in the Master of Lighting (PH83), on successful completion of 96 credit points, are required to seek admission using an International Student Degree Program Application (F) Form.

Students in the Graduate Diploma in Lighting (PH73) wishing to exit with the Graduate Certificate in Lighting (PH63) are required to submit an Application to Graduate Early with an Approved Exit Course (SRX) Form in their final semester of study.

### Potential Careers:

Architect, Electrical Contractor, Electrical Engineer, Energy Consultant, Industrial Designer, Landscape Architect, Lighting Designer, Lighting Technician, Luminaire Designer, Physicist, Sales Person, Scientist, Theatre Lighting.

## Graduate Diploma in Cardiac Ultrasound (PH75)

**Year offered:** 2011

**Admissions:** Yes

**Course duration (part-time):** 4 semesters (2 years) (External only)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester (Please refer to Domestic Fees note below)

**International Fees (indicative):** 2011: \$11,350 (indicative) per semester

**Domestic Entry:** February: Early Closing Date - 1 December 2010.

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Bonita Anderson

**Campus:** External

### Overview

The Graduate Diploma and Master of Cardiac Ultrasound programs offer studies for practising cardiac sonographers. The courses use a combination of block classes of approximately one week's duration in each semester, webbased modules and clinical practice modules.

### Entry Requirements

To be eligible for admission, an applicant:

- will normally have a diploma level qualification with a minimum of 5 years clinical experience in cardiac ultrasound degree or a bachelor degree in a relevant science or allied health field
- must provide written proof of a minimum of three months full-time equivalent prior supervised, hands-on clinical experience in cardiac ultrasound
- must have access to suitable clinical experience for the duration of the course (In accordance with the Australasian Sonographer Accreditation Registry (ASAR) Program Accreditation Guidelines, it is recommended that students be engaged in cardiac ultrasound practice for a minimum of 3 days/week over a 2 year period, full-time equivalent, in an Australian or New Zealand clinical setting)

### Course Design

Stage 1— Graduate Diploma in Cardiac Ultrasound (PH75) takes two years of part-time study to complete. Students must be employed in a suitable clinical practice with access to clinical cardiac ultrasound experience for the course duration. Students outside Brisbane may complete the formal classroom component in an intensive one-week block.

### Professional Recognition

This course is accredited with the Australasian Sonographer Accreditation Registry (ASAR).

### International Student Entry

These courses are not available to student visa holders.

**International students on a work visa of 2 years or more including study rights in Australia are eligible to apply for this course.**

**NB: New Zealand citizens may apply for entry into this course as domestic students.**

### Domestic Fees:

Please note that the Domestic Fees quoted above are based on full-time studies. This course is a part-time course. For Domestic postgraduate tuition fees please refer to this web site to view the costs of individual units: [student.qut.edu.au/fees-and-finances/study-costs/fee-schedule/table-b-domestic-postgraduate-tuition-fee/](http://student.qut.edu.au/fees-and-finances/study-costs/fee-schedule/table-b-domestic-postgraduate-tuition-fee/)

### Further Information

For further Information about this course, please contact:

Bonita Anderson

Phone: +61 7 3138 2585

Email: [b.anderson@qut.edu.au](mailto:b.anderson@qut.edu.au)

### Course structure

#### Year 1, Semester 1

PCN155	Cardiac Ultrasound 1
PCN162	Principles of Medical Ultrasound
PCN497-1	Clinical Attachment 4

#### Year 1, Semester 2

PCN259	Cardiac Ultrasound 2
PCN497-2	Clinical Attachment 4

#### Year 2, Semester 1

PCN218	Research Methodology and Professional Studies
PCN359	Cardiac Ultrasound 3
PCN597-1	Clinical Attachment 5

#### Year 2, Semester 2

PCN459	Advanced Cardiac Ultrasound
PCN597-2	Clinical Attachment 5

**NOTES:** The PCN497 and PCN597 clinical attachment units are 2 semester units.

Domestic students in the Graduate Diploma in Cardiac Ultrasound (PH75) will be invited, on successful completion of 96 credit points, to continue with studies in the Master of Cardiac Ultrasound (PH85).

### Potential Careers:

Sonographer.

## Master of Applied Science (Medical Physics) (PH80)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 043548G

**Course duration (full-time):** 3 semesters (1.5 years)

**Course duration (part-time):** 6 semesters (3 years)

**Domestic fees (indicative):** 2011: CSP \$3,878 per semester (indicative)

**International Fees (indicative):** 2011: \$11,250 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Andrew Fielding

**Campus:** Gardens Point

### Overview

These courses deal with well-established areas of medical and health physics including clinical measurement, computing, health physics, instrumentation, medical electronics, medical imaging, physiological monitoring, physics of radiotherapy, radiobiology and radiological imaging sciences. The coursework also contains an introduction to the clinical sciences.

### Other Majors

See also the separate entry for the following major in this course: Master of Applied Science (Medical Ultrasound).

### Career Outcomes

Graduates can seek employment in hospitals, health departments, tertiary institutions and medical instrumentation companies. Depending on the field of employment, graduates may be known as a medical physicist, health physicist or bio-engineer.

Professional medical/health physicists:

- apply electronic tools and medical software, ultrasonics, radiation and computers to clinical and environmental problems
- monitor the environment to maintain acceptable standards in the workplace and the community
- apply fundamental physical research in development programs
- are responsible for calibration, care and maintenance of instruments and apparatus.

### Entry Requirements

Applicants must possess an acceptable Bachelor of Science degree with a major in physics. Applicants with other qualifications (eg medical engineering) may enrol with the approval of the course coordinator. In some instances, a modified program may be necessary.

### Course Design

Stage 1— Graduate Diploma (PH71) comprises assessed coursework such as

advanced lectures, seminars, reading units or independent study. Full time students will need an average of 14 hours a week of formal contact (seven hours for parttime students). Students can graduate with a Graduate Diploma in Medical Physics after satisfactory completion of Stage 1.

Stage 2— Master of Applied Science (PH80) students undertake a program of supervised research and investigation that can be completed at QUT or in a suitable external institution.

### Professional Recognition

The course is accredited by the Australasian College of Physical Sciences and Engineers in Medicine.

### Further Information

For further information about this course, please contact:

Dr Andrew Fielding

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### Course structure - First Semester Entry - Full-time Course

STAGE 1: Students must complete units from the list below, totalling 96 credit points:

#### Year 1, Semester 1 (February to June)

LSB142	Human Anatomy and Physiology
PCN113	Radiation Physics
PCN114	Microprocessors and Instrumentation
PCN211	Physics of Medical Imaging

#### Year 1, Semester 2 (July to October)

PCN112	Medical Imaging Science
PCN212	Radiotherapy
PCN214	Health and Occupational Physics
PCN218	Research Methodology and Professional Studies

### STAGE 2: Project over One Semester or Summer Program

PCN520	Project (Full-time)
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### Course structure - First Semester Entry - Part-time Course

STAGE 1: Students must complete units from the list below, totalling 96 credit points:

#### Year 1, Semester 1 (February to June)

LSB142	Human Anatomy and Physiology
PCN113	Radiation Physics

#### Year 1, Semester 2 (July to October)

PCN112	Medical Imaging Science
PCN212	Radiotherapy

## Year 2, Semester 1 (February to June)

PCN114 Microprocessors and Instrumentation  
PCN211 Physics of Medical Imaging

## Year 2, Semester 2 (July to October)

PCN214 Health and Occupational Physics  
PCN218 Research Methodology and Professional Studies

## STAGE 2: Project over Two Semesters:

PCN540-1 Project (Part-time)  
PCN540-2 Project (Part-time)

## Course structure - Mid-Year Entry - Full-time Course

STAGE 1: Students must complete units from the list below, totalling 96 credit points:

## Year 1, Semester 2 (July to October)

LSB182 Bioscience 1  
PCN112 Medical Imaging Science  
PCN212 Radiotherapy  
PCN214 Health and Occupational Physics

## Year 2, Semester 1 (February to June)

PCN113 Radiation Physics  
PCN114 Microprocessors and Instrumentation  
PCN211 Physics of Medical Imaging  
PCN218 Research Methodology and Professional Studies

## STAGE 2: Project over One Semester or Summer Program

PCN520 Project (Full-time)

## Course structure - Mid-Year Entry - Part-time Course

STAGE 1: Students must complete units from the list below, totalling 96 credit points:

## Year 1, Semester 2 (July to October)

LSB182 Bioscience 1  
PCN112 Medical Imaging Science

## Year 2, Semester 1 (February to June)

PCN113 Radiation Physics  
PCN114 Microprocessors and Instrumentation

## Year 2, Semester 2 (July to October)

PCN212 Radiotherapy  
PCN214 Health and Occupational Physics

## Year 3, Semester 1 (February to June)

PCN211 Physics of Medical Imaging  
PCN218 Research Methodology and Professional Studies

## STAGE 2: Project over Two Semesters:

PCN540-1 Project (Part-time)  
PCN540-2 Project (Part-time)

## Potential Careers:

Health Physicist, Medical Equipment Sales, Medical Physicist, Medical Scientist.



## Master of Applied Science (Medical Ultrasound) (PH80)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 043548G

**Course duration (part-time):** 6 semesters (3 years)

**Domestic fees (indicative):** 2011: CSP \$3,878 per semester (indicative)

**International Fees (indicative):** 2011: \$11,250 (indicative) per semester

**Domestic Entry:** February

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Chandeeep Bakshi

**Discipline coordinator:** Mr. Chandeeep Bakshi

**Campus:** Gardens Point

### Overview

The Graduate Diploma and Master of Applied Science courses in medical ultrasound give students the scientific basis for understanding, using and evaluating relevant equipment and techniques.

### Other Majors

See also the separate entry for the following major in this course: Master of Applied Science (Medical Physics).

### Career Outcomes

This course is particularly designed for graduates and practitioners in medical ultrasound fields, such as radiographers, and medical imaging and nuclear medicine technologists, who wish to upgrade their qualifications and depth of knowledge in this rapidly developing area.

### Entry Requirements

To be eligible for admission an applicant:

- will normally have a degree or diploma-level qualification in a relevant science or allied health field, and
- access to suitable clinical experience for the duration of the course.

Students who do not meet normal entry requirements may be permitted to enter the course subject to approval.

Applicants should submit relevant details of previous studies and prior learning experiences. In some cases a bridging program may be required.

### Course Design

Stage 1— Graduate Diploma (PH71) takes four semesters of part-time study to complete. Students must show that they have access to suitable clinical experience for the duration of Stage 1 before commencing the degree. Lectures are conducted in intensive four- to five-week blocks in each semester. Students undertake clinical experience throughout the semester.

Stage 2— Master of Applied Science (PH80) involves completion of a research project and submission of a thesis. Students can undertake this project externally under QUT staff supervision on appointment of a suitable external supervisor. This stage takes two semesters part-time to complete after successful completion of Stage 1.

### Professional Recognition

This course is accredited with the Australasian Sonographer Accreditation Registry.

### International Student Entry

These courses are not available to international students.

### Contact Details

For further information about this course, please contact:

Chandeeep Bakshi

Phone: +61 7 3138 2782

Email: enquiry.scitech@qut.edu.au

### Course structure - First Semester Entry - Part-time Course

STAGE 1: Students must complete the units listed below, totalling 96 credit points:

#### Year 1, Semester 1

PCN159	Ultrasonic Examination 1
PCN162	Principles of Medical Ultrasound
PCN197-1	Clinical Attachment 1

#### Year 1, Semester 2

PCN197-2	Clinical Attachment 1
PCN356	Ultrasonic Examination 2

#### Year 2, Semester 1

PCN297-1	Clinical Attachment 2
PCN355	Vascular Ultrasound
PCN357	Advanced Ultrasound Topics

#### Year 2, Semester 2

PCN218	Research Methodology and Professional Studies
PCN297-2	Clinical Attachment 2
NOTES	- The Clinical Ultrasound units PCN197 and PCN297 are 2 semester units.  - Each clinical attachment unit (ie PCN197 and PCN297) involves clinical experience in the order of 3 days per week or equivalent.

### STAGE 2

#### Project over One Semester or Summer Program:

PCN520	Project (Full-time)
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#### Project over Two Semesters:

PCN540-1 Project (Part-time)

PCN540-2 Project (Part-time)

**NOTE** A student may request an extension of time in which to submit the project report for assessment. A request for an extension of time up to a maximum of six months shall be made in writing through the Head of School to the Dean. Any request for a further extension, or any request for an extension to a date later than six months after the original due date, shall be made in writing to the Academic Board. The Academic Board may grant the extension under such conditions as it may consider appropriate, or may award the student a "Fail" result in the project unit. A student who has received a "Fail" result in the project unit may re-enrol in the unit only in exceptional circumstances and with the express permission of the Academic Board.

**Potential Careers:**

Sonographer.

## Master of Lighting (on-shore) (PH82)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 058287A

**Course duration (full-time):** 3 semesters (1.5 years) (Internal only)

**Course duration (part-time):** 6 semesters (3 years) (Internal and External)

**Domestic fees (indicative):** 2011: Full fee tuition \$7,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,500 (indicative) per semester

**Domestic Entry:** July

**International Entry:** July

**Total credit points:** 144

**Standard credit points per part-time semester:** 24

**Course coordinator:** Associate Professor Ian Cowling

**Campus:** Gardens Point

### Overview

The Master of Lighting (PH82) is designed primarily for people working in all areas of the lighting industry and engineers or architects whose work includes some aspects of lighting. It provides the opportunity for graduates of the Graduate Certificate in Lighting (PH62) and the Graduate Diploma in Lighting (PH72) to undertake a Masters in the form of a project with some coursework.

### Entry Requirements

- Bachelor-level degree in an appropriate field, **or**
- successful completion of the Graduate Certificate or Graduate Diploma in Lighting or equivalent.

### Course Design

Masters students will undertake a 24 credit point research project, which may be based within their place of employment and two units (24 credit points) of coursework which may be reading topics associated with their project or other electives taken from any relevant units within the University, on approval of the Course Coordinator.

### Further Information

For further information about this course, please contact:

Ian Cowling

Phone: +61 7 3138 2592

Email: i.cowling@qut.edu.au

### Course structure - Full-time

#### Year 1, Semester 2 (July to October)

PCN121	Vision Colour and Photometry
PCN123	Sustainability and Human Factors
PCN124	Lamps and Luminaires
PCN224	Applied Lighting

#### Year 2, Semester 1 (February to June)

PCN122	Lighting Design
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PCN221	Best Practices in Lighting
PCN321	Reading Topic 1
PCN322	Reading Topic 2

#### Year 2, Semester 2 (July to October)

PCN222	Advanced Lighting Design
PCN223	Lighting Applications
PCN320	Lighting Project

### Course structure - Part-time

#### Year 1, Semester 2 (July to October)

PCN121	Vision Colour and Photometry
PCN124	Lamps and Luminaires

#### Year 2, Semester 1 (February to June)

PCN122	Lighting Design
PCN123	Sustainability and Human Factors

#### Year 2, Semester 2 (July to October)

PCN223	Lighting Applications
PCN222	Advanced Lighting Design

#### Year 3, Semester 1 (February to June)

PCN221	Best Practices in Lighting
PCN224	Applied Lighting

#### Year 3, Semester 2\* (July to October)

PCN321	Reading Topic 1 or approved elective
PCN322	Reading Topic 2 or approved elective

#### Year 4, Semester 1\* (February to June)

PCN320	Lighting Project
* The Fifth and Sixth semesters can be taken concurrently in full-time mode.	

PH82 is offered full-time internally and part-time internally and externally. The course comprises a lecture/tutorial format, and where appropriate practical and field work. Some units will have a significant computer-design type component and all units will incorporate learning through assignment work, all of which will be incorporated into the assessment program. Most units in the internal mode will be offered in block format on evenings and weekends. Students enrolling in the external mode will be required to attend QUT for 4 to 5 days per semester for intensive practical and tutorial work.

Students in the Master of Lighting (PH82) wishing to exit with the Graduate Certificate in Lighting (PH62) or Graduate Diploma in Lighting (PH72) are required to submit an Application to Graduate Early with an Approved Exit Course (SRX) Form in their final semester of study.

International students wishing to change courses should consult International Student Business Services.

**Potential Careers:**

Architect, Electrical Contractor, Electrical Engineer, Energy Consultant, Industrial Designer, Landscape Architect, Lighting Designer, Lighting Technician, Luminaire Designer, Physicist, Sales Person, Scientist, Theatre Lighting.

## **Master of Lighting (off-shore) (PH83)**

**Year offered:** 2011

**Admissions:** No

**Course duration (external):** 3 semesters (1 year) full-time and 6 semesters (2 years) part-time (Hong Kong)

**Domestic fees (indicative):** Off-shore course

**International Entry:** September

**Total credit points:** 144

**Standard credit points per part-time semester:** 24

**Course coordinator:** Associate Professor Ian Cowling

**Campus:** City University of Hong Kong

### **Overview**

The Master of Lighting (PH83) is designed primarily for people working in all areas of the lighting industry and engineers or architects whose work includes some aspects of lighting. It provides the opportunity for graduates of the Graduate Certificate in Lighting (PH63) and the Graduate Diploma in Lighting (PH73) to undertake a Masters in the form of a project with some coursework.

### **Entry Requirements**

(a) Bachelor level degree in an appropriate field

### **OR**

(b) Successful completion of the PH72/PH73 Graduate Diploma in Lighting or equivalent.

*Note:* Students with relevant experience in the lighting industry or recognised educational qualifications in lighting may be granted credit to a maximum of 36 credit points.

### **Course Design**

Masters students will undertake a 24 credit point research project, which may be based within their place of employment and two units (24 credit points) of coursework which may be reading topics associated with their project or other electives taken from any relevant units within the University, on approval of the Course Coordinator.

### **Contact Details**

#### **Course Coordinator**

Associate Professor Ian Cowling

Phone: +61 7 3138 2592

Email: i.cowling@qut.edu.au

### **Course structure - Part-time**

#### **First Semester (September to December)**

PCZ121 Vision Colour and Photometry

PCZ124 Lamps and Luminaires

#### **Second Semester (January to April)**

PCZ122 Lighting Design

PCZ123 Sustainability and Human Factors

#### **Third Semester (May to August)**

PCZ222 Advanced Lighting Design

PCZ223 Lighting Applications

#### **Fourth Semester (September to December)**

PCZ221 Best Practices in Lighting

PCZ224 Applied Lighting

#### **Fifth Semester (January to April)**

PCZ321 Reading Topic 1

Or approved elective

PCZ322 Reading Topic 2

Or approved elective

#### **Sixth Semester (May to August)**

PCZ320 Lighting Project

**NOTE:** PH83 will be offered part-time in a combination of face-to-face lecture/tutorial/practical format, and on-line. Some units will have a computer-design type component and all units will incorporate learning through assignment work, all of which will be incorporated into the assessment program. For the first three semesters the two units offered each semester will be presented sequentially. The face-to-face teaching component will be offered in block form over a weekend, usually on the first weekend of the teaching period assigned to that unit. There will then be a follow-up face-to-face session about three weekends later. For the fourth and fifth semesters both units will commence together at the start of the semester.

Students in the Master of Lighting (PH83) wishing to exit with the Graduate Certificate in Lighting (PH63) or Graduate Diploma in Lighting (PH73) are required to submit an Application to Graduate Early with an Approved Exit Course (SRX) Form in their final semester of study.

### **Potential Careers:**

Architect, Electrical Contractor, Electrical Engineer, Energy Consultant, Industrial Designer, Landscape Architect, Lighting Designer, Lighting Technician, Luminaire Designer, Physicist, Sales Person, Scientist, Theatre Lighting.



**Master of Cardiac Ultrasound (PH85)****Year offered:** 2011**Admissions:** Yes**Course duration (part-time):** 6 semesters (3 years)  
(External only)**Domestic fees (indicative):** 2011: Full fee tuition \$7,375  
(indicative) per semester**Domestic Entry:** February: Early Closing Date - 1  
December 2010. Stage 1 of this course commences in  
February and July (students with advanced standing). Stage  
2 commences in February and July 2011.**Total credit points:** 144**Standard credit points per full-time semester:** 48**Standard credit points per part-time semester:** 24**Course coordinator:** Bonita Anderson**Campus:** Gardens Point**Overview**

The Graduate Diploma and Master of Cardiac Ultrasound programs offer studies for practising cardiac sonographers. The courses use a combination of block classes of approximately one week's duration in each semester, webbased modules and clinical practice modules.

**Entry Requirements**

To be eligible for admission, an applicant:

- will normally have a diploma level qualification with a minimum of 5 years clinical experience in cardiac ultrasound degree or a bachelor degree in a relevant science or allied health field
- must provide written proof of a minimum of three months full-time equivalent prior supervised, hands-on clinical experience in cardiac ultrasound
- must have access to suitable clinical experience for the duration of the course.

July entry into the Master of Cardiac Ultrasound is available only to students who have completed the Graduate Diploma in Cardiac Ultrasound or students with advanced standing.

Advanced standing is granted to students who hold the Diploma in Medical Ultrasonography (Cardiac) awarded by the Australasian Society for Ultrasound in Medicine. An appropriate program of coursework should be discussed with the course coordinator.

**Course Design**

Stage 1— Graduate Diploma in Cardiac Ultrasound (PH75) takes two years

of part-time study to complete. Students must be employed in a suitable clinical practice with access to clinical cardiac ultrasound experience for the course duration. Students outside Brisbane may complete the formal classroom component in an intensive one-week block.

Stage 2— Master of Cardiac Ultrasound (PH85) involves completion of a research project and submission of a thesis. Students undertake this project externally under supervision of QUT staff and a suitable external supervisor. This stage

takes one year part-time to complete after successful completion of Stage 1.

**Professional Recognition**

This course is accredited with the Australasian Sonographer Accreditation Registry (ASAR).

**International Student Entry**

These courses are not available to international students.

**Fees**

Please note that the Domestic Fees quoted above are based on full-time studies. This course is a part-time course. For Domestic postgraduate tuition fees please refer to this web site to view the costs of individual units:  
**[student.qut.edu.au/fees-and-finance/study-costs/fee-schedule/table-b-domestic-postgraduate-tuition-fee/](http://student.qut.edu.au/fees-and-finance/study-costs/fee-schedule/table-b-domestic-postgraduate-tuition-fee/)**

**Further Information**

For further information about this course, please contact:

Bonita Anderson

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)**Course structure**

**STAGE 1:** Students must complete the units listed below, totalling 96 credit points:

**Year 1, Semester 1**

PCN155 Cardiac Ultrasound 1  
PCN162 Principles of Medical Ultrasound  
PCN497-1 Clinical Attachment 4

**Year 1, Semester 2**

PCN259 Cardiac Ultrasound 2  
PCN497-2 Clinical Attachment 4

**Year 2, Semester 1**

PCN218 Research Methodology and Professional Studies  
PCN359 Cardiac Ultrasound 3  
PCN597-1 Clinical Attachment 5

**Semester 2, Semester 2**

PCN459 Advanced Cardiac Ultrasound  
PCN597-2 Clinical Attachment 5

**NOTE:** The PCN497 and PCN597 clinical attachment units are 2 semester units.

**STAGE 2:**\* Students must complete the units listed below, totalling 48 credit points:

**First Semester \*\* (Project Over Two Semesters)**

PCN640-1 Project  
PCN640-2 Project

Notes: A student may request an extension of time in which to submit the project report for assessment. A request for an extension of time up to a maximum of six months should be made in writing through the Head of School to the Dean. Any request for a further extension, or any request for an extension to a date later than six months after the original due date, should be made to the Academic Board. The Academic Board may grant the extension under such conditions as it may consider appropriate, or may award the student a "Fail" result in the project unit.

A student who has received a 'Fail' result in the project unit may re-enrol in the unit only in exceptional circumstances and with the express permission of the Academic Board.

\* Masters project units are offered in both semesters.

\*\* Second Semester enrolments for PH85 will only be accepted under the following circumstances:

1. Students who have successfully completed PH75 Graduate Diploma in Cardiac Ultrasound may enrol into the Masters project (PCN640-1) in second semester.

2. Students who have completed the Cardiac DMU and who are eligible to apply for advanced standing may enrol into PH85 in second semester.#

# Under university rules and regulations, these students are required to undertake 50% of the coursework for PH85. Therefore, in addition to the Masters project, students will be required to complete two other units (PCN218 Research Methodology and Professional Studies and PCN459 Advanced Cardiac Ultrasound).

Students in the Master of Cardiac Ultrasound (PH85) wishing to exit with the Graduate Diploma in Cardiac Ultrasound (PH75) are required to submit an Application to Graduate Early with an Approved Exit Course (SRX) Form in their final semester of study.

Potential students are required to contact the course coordinator prior to applying for entry into PH85 to outline their research/project proposal.

#### **Potential Careers:**

Sonographer.

## Bachelor of Applied Science (SC01)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 003502J

**Course duration (full-time):** 3 Years

**Course duration (part-time):** 6 Years

**Domestic fees (indicative):** 2011: CSP \$2,178 per semester (indicative)

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July\* (Conditions apply for July entry)

**QTAC code:** 418011

**Past rank cut-off:** 77

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 288

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Marion Bateson

**Discipline coordinator:** Dr Perry Hartfield (Biochemistry Major); Dr Marion Bateson (Biotechnology Major); Dr Dennis Arnold (Chemistry Major); Dr Ian Williamson (Ecology Major); Dr Robin Thwaites (Environmental Science Major); Dr Emad Kiriakous (Forensic Science Major); Dr Gary Huftile (Geoscience Major); Dr Christine Knox (Microbiology Major); Dr Stephen Hughes (Physics Major)

**Campus:** Gardens Point

### Overview

The flexibility of QUT's Bachelor of Applied Science allows you to tailor the qualification to your needs and career aspirations. Would you like to be at the forefront of the latest discoveries in genetic engineering, improve the lives of others by researching new diagnostic techniques and treatments for diseases, or monitor a community's water supply ensuring it is safe to drink? You could help save an endangered species, investigate renewable energy sources or formulate solutions to problems like water shortages and salinity. You could advise world leaders on the causes and effects of global warming or even discover a new star in a far away galaxy.

### Why Choose this Course

#### Employability:

Our courses are designed in consultation with industry, government and the professions. At QUT you won't just learn theory, you will apply it to real-world situations, ensuring your skills will be in demand when you graduate.

#### Practical teaching

From the beginning of your course you can expect to spend quality time in QUT's state-of-the-art laboratories learning the latest techniques and using equipment found in industry.

#### Learn from the experts

Our lecturers are experts in their field and include award-

winning teachers and world-renowned researchers.

### Cutting-edge technologies

You will learn about the latest discoveries from QUT's internationally recognised research facilities ensuring you graduate with the most up-to-date knowledge.

### Financial support

A range of scholarships is available including the Dean's Scholars Accelerated Honours Program, Vice-Chancellor's Scholarship and Industrial Chemistry bursaries.

### Real experience

If you are considering a career in research you can apply for a Vacation Research Experience Scholarship and undertake a real research project during the Summer Program.

### Convenience

Gardens Point campus has a prime location in Brisbane's city centre with easy access via buses, trains and ferries.

### Design your own degree

You have a broad range of options to choose from and the flexibility to create your own personal science degree program. If you are not sure of your career direction, don't worry because this decision can be delayed until after you have sampled a range of science disciplines during your first year of study. The 24 unit degree comprises:

#### First-year program (eight units)

The first year is designed to give you experience in a wide range of basic science disciplines, consisting of three general foundation units, one maths unit, and four major foundation units. Some of these foundation sciences, such as mathematics and chemistry, will underpin all of your later studies. All of the first-year studies are designed to challenge and engage you in the wonders of science, regardless of your prior exposure to science studies. You should seek advice from our expert staff of your choice of major to suit your interests and capabilities, and your personal and career aspirations.

#### Major (eight units)

Choose your main specialisation study area (your major) from the list below. This will form the basis for your qualification, for example Bachelor of Applied Science (Biotechnology). As QUT courses are designed in close consultation with industry you will be eligible for the relevant professional accreditation when you graduate. The major areas available are:

- Biochemistry
- Biotechnology
- Chemistry
- Ecology
- Environmental Science
- Forensic Science\*
- Geoscience
- Microbiology
- Physics

\* Students who select the Forensic Science major must

also select a 96cp Second Major in either Chemistry, Biotechnology, Biochemistry or Microbiology.

## Second major (six units)

Personalise your degree by choosing a secondary specialisation (your second major) to complement your major area of study. This secondary specialisation may be one of the other majors, a second major (listed below), or an area outside the science disciplines:

- One of the nine science majors listed above or
- Applied Geology
- Astrophysics
- Biodiversity
- Chemistry for Industry
- Life Science Technologies
- Mathematics

or a non-science second major from this list:

- Aviation
- Corporate IT Systems
- Environmental Engineering Studies
- Ethics and Human Rights
- Foreign Languages
- Games Technology
- Geography
- Journalism
- Management
- Marketing
- Music
- Nutrition
- Psychology
- Spatial Science

## Optional units (two units)

You also have the freedom to choose two units of study from Science and Technology, or across the University, to suit your own interests. Alternatively you may choose units to complement or deepen your expertise in your chosen science area of study.

## Professional Recognition

For graduates with approved study: AusBiotech Ltd, Australasian Association of Clinical Biochemists (AACB), Australasian Institute of Mining and Metallurgy (AIMM), Australian and New Zealand Forensic Science Society (ANZFSS), Australian Institute of Geoscientists (AIG), Australian Institute of Physics (AIP), Australian Society for Biochemistry and Molecular Biology (ASBMB), Australian Society for Medical Research (ASMR), Australian Society for Microbiology (ASM), Australian Wildlife Management Society (AWMS), Ecological Society of Australia (ESA), Environment Institute of Australia and New Zealand (EIANZ), Geological Society of Australia (GSA), Royal Australian Chemical Institute (RACI), Soil Science Society of Australia (SSSA).

## Recommended Study

At least one of the sciences. For biochemistry, biotechnology, forensic science, and microbiology majors -

Biological Science and Chemistry; for physics major - Maths C.

## Science Second Major Areas of Study

You will choose a second major to complement your major area of study. This second major may be one of the majors offered within the Bachelor of Applied Science, or it may be one of the science second majors listed below. Alternatively you may choose another area of study outside the sciences.

### Science Second Majors:

#### Applied Geology:

The Applied Geology second major is designed to complement the Geoscience major. The skills learned through core units in the major are applied to activities related to the petroleum, mineral, hydrogeological and environmental professions. You will learn the specialist techniques required to understand the genesis of ore deposits, set up mineral exploration programs, produce groundwater models, understand the fluid flow in petroleum reservoirs or manage the effects of human activity on the environment.

#### Astrophysics:

The Astrophysics second major is an exciting blend of astrophysics, geophysics, cosmology, digital image processing and remote sensing units, designed to be taken with a major in Physics, Mathematics or Geoscience. The second major is relevant to many real-world problems and applications, including satellite technology, telecommunications, minerals exploration and global warming. By taking this second major you will develop skills in computing, instrumentation, image processing, geodesy and materials science that will be useful for a wide variety of careers in industry and the public sector.

#### Biodiversity:

Biodiversity has evolved over the years as a discipline concerned with the conservation and sustainable use of the earth's biological diversity. It deals with the components of biological diversity, genes to biomes, and seeks to describe and quantify this diversity, and determine how it is produced and maintained. The Biodiversity second major is designed to complement both the Ecology and Environmental Science majors. Common threads are the basic biology of the species in Australian ecosystems, the systems they are a part of, and the evolution of these species and ecosystems.

#### Chemistry for Industry:

The Industrial Chemistry second major is designed to partner the Chemistry major. The emphasis is on analytical chemistry and chemical technology. It aims to familiarise you with state-of-the-art equipment and modern laboratory information systems as well as online monitoring and control of industrial processes. This second major is well recognised by employers in industrial, hospital and sports laboratories, by food and pharmaceutical producers and by instrument manufacturers as well as research organisations. As a graduate from this program you can look forward to a rewarding career commencing employment as a chemist and then moving through an organisation in supervisory and



managerial capacities. A number of industry-sponsored bursaries are available each year for students enrolled in the Chemistry and Chemistry for Industry second majors.

## Life Science Technologies:

The many and varied disciplines which are characteristic of research and development activities in the life sciences are reflected in employer demand for a broad range of graduates with different specialisations and skills. The life sciences technologies second major addresses this demand by enabling you to tailor units from an available list to reflect your personal interests while strengthening your skills and expertise. In second year, you will undertake three units that expand your knowledge in a range of basic life science areas including physiology. In third year you will build your expertise and practical skills by selecting three advanced units from an approved list in the areas of biotechnology, biochemistry, microbiology or physiology. The strong technology focus of these units will complement your primary major and enhance your opportunities in an ever-increasing variety of niche employment areas.

## Mathematics:

Mathematical Science provides powerful tools for analysis of today's complex world and gives an insight into many important real-world problems.

## Course Rules

1. To fulfil the requirements for the award of the Bachelor of Applied Science degree, a student must complete a total of at least 288 credit points, comprising at least 192 credit points of science units. The units completed for the award of the degree must include:

- (a) the first year program as outlined in the course summary
- (b) a major study
- (c) a second major study

Major and second major studies are defined in terms of the discipline area and the academic level at which the units are offered.

A major must be completed in one of the following discipline areas: biochemistry; biotechnology; chemistry; ecology; environmental science; forensic science; geoscience; microbiology; physics. A major comprises 96 credit points of units at advanced level, including at least 48 credit points at the third level.

A second major may be completed by selecting appropriate units from another major, or from the following discipline areas:

Science applied geology, astrophysics, biodiversity, chemistry for industry, life science technologies, mathematics.

Non-Science: aviation, corporate IT systems, environmental engineering studies, ethics and human rights, foreign languages, games technology, geography, journalism, management, marketing, music, nutrition, psychology, spatial science.

A second major comprises 72 credit points with at least 60 credit points at advanced level for the Science second majors and at least 48 credit points for the non-Science second majors. Major and second major studies may be taken in closely related discipline areas.

2. Optional (elective) units may be chosen from (a) SCO1 majors/second majors other than those undertaken by a student, (b) other appropriate units offered by the Faculty of Science and Technology, and (c) units offered by other faculties.

3. Students are normally expected to complete the course in minimum time. A full-time student normally enrolls in an average of 48 credit points per semester for six semesters and a part-time student normally enrolls in 24 credit points per semester for 12 semesters. (A full-time student is one who is enrolled in 36 or more credit points per semester, whereas a part-time student is one who is enrolled in less than 36 credit points per semester.)

## Notes on the Rules

1. For offerings in the Faculty of Science and Technology, the term advanced level refers to units in Schedules 2 and 3. For units offered outside the Faculty of Science and Technology, the term advanced level refers to units for which there is at least one prerequisite unit.

2. Level 2 and level 3 units are listed in Schedules 2 and 3 respectively according to their unit codes. For each unit, the major(s) and/or second major(s) in which the unit is offered are shown. It should be noted that not every advanced level unit offered in each major/second major is mandatory.

3. The major undertaken by a student will qualify the generic award title of BAppSc and will appear in the award title in parentheses. The general form of the award will therefore be: BAppSc(Major).

## 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.

## Further Information

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

## Course Coordinator

Dr Marion Bateson  
Phone: +61 7 3138 1269  
Email: m.bateson@qut.edu.au

## Discipline Coordinators

### **Biochemistry Major (Cell and Molecular Biosciences Discipline)**

Dr Perry Hartfield



Phone: +61 7 3138 2984  
 Email: p.hartfield@qut.edu.au  
 Alternative phone contact: +61 7 3138 2782  
 Alternative email contact: enquiry.scitech@qut.edu.au

**Biotechnology Major (Cell and Molecular Biosciences Discipline)**

Dr Marion Bateson  
 Phone: +61 7 3138 1269  
 Email: m.bateson@qut.edu.au

**Chemistry Major (Chemistry Discipline)**

Dr Dennis Arnold  
 Phone: +61 7 3138 2482  
 Email: d.arnold@qut.edu.au  
 Alternative phone contact: +61 7 3138 2782  
 Alternative email contact: enquiry.scitech@qut.edu.au

**Ecology Major (Biogeosciences Discipline)**

Dr Ian Williamson  
 Phone: +61 7 3138 2782  
 Email: enquiry.scitech@qut.edu.au

**Environmental Science Major (Biogeosciences Discipline)**

Dr Robin Thwaites  
 Phone: +61 7 3138 2782  
 Email: enquiry.scitech@qut.edu.au

**Forensic Science Major (Chemistry Discipline)**

Dr Emad Kiriakous  
 Phone: +61 7 3138 2782  
 Email: enquiry.scitech@qut.edu.au

**Geoscience Major (Biogeosciences Discipline)**

Dr Gary Huftile  
 Phone: +61 7 3138 2782  
 Email: enquiry.scitech@qut.edu.au

**Microbiology Major (Cell and Molecular Biosciences Discipline)**

Dr Christine Knox  
 Phone: +61 7 3138 2782  
 Email: enquiry.scitech@qut.edu.au

**Physics Major (Physics Discipline)**

Dr Stephen Hughes  
 Phone: +61 7 3138 2782  
 Email: enquiry.scitech@qut.edu.au

**Second Major in Applied Geology (compatible with Geoscience Major only)**

- NOTES:
- In the full-time course structure each of the two electives available in the course need to be selected in the relevant semesters to total 4 units per semester.
  - Select SIX appropriate units from the following program: [Note: units cannot be included if already counted towards Geoscience Major]

**Year 1, Semester 1**

Units as per Geoscience major

**Year 1, Semester 2**

Units as per Geoscience major

**Year 2, Semester 1**

NQB302 Earth Surface Systems  
 Recommended Elective:  
 UDB281 Geographic Information Systems

**Year 2, Semester 2**

NQB403 Soils and the Environment  
 NQB413 Stratigraphy

**Year 3, Semester 1**

NQB503 Spatial Analysis of Environmental Systems  
 NQB512 Economic Geology

**Year 3, Semester 2**

NQB612 Basin Analysis and Petroleum Geology  
 NQB613 Plate Tectonics  
 NQB614 Groundwater Systems

**Recommended Majors:**

This second major is compatible with Geoscience Major only

**Second Major in Astrophysics (compatible with Physics major only)**

**Year 1, Semester 1**

Units as per Physics major

**Year 1, Semester 2**

Units as per Physics major

**Year 2, Semester 1**

PCB593 Digital Image Processing  
 PQB360 Global Energy Balance and Climate Change

**Year 2, Semester 2**

PQB460 Astrophysics 1  
 Plus Elective

**Year 3, Semester 1**

MAB312 Linear Algebra  
 Plus Elective

**Year 3, Semester 2**

PQB661 Lasers and Photonics  
 Plus either:  
 ENB422 Energy Management  
 Or

PQB660    Astrophysics 2

**Recommended Majors:**

This second major is compatible with Physics major only

**Second Major in Aviation (subject to timetable availability)**

Students who complete a Diploma of Aviation, approved by the Civil Aviation Authority of Australia, from an external provider can apply for a second major in Aviation. These students would receive 96 credit points toward the Bachelor of Applied Science (72 credit points at advanced level for the second major plus a further 24 credit points of elective units).

**Note:**

Students interested in undertaking this second major should consult the course coordinator.

**Second Major in Biochemistry (compatible with Life Science or Chemistry major only)**

This second major comprises six units, in excess of those already included in your major, from Biochemistry. You will need to ensure all necessary pre- and co-requisites are satisfied. Note: LQB386 can be included in the second major when taken with a Biotechnology major.

**Recommended Majors:**

This second major is compatible with Life Science or Chemistry major only.

**Second Major in Biodiversity (compatible with any Science major)**

- NOTES:
- In the full-time course structure each of the two electives available in the course need to be selected in the relevant semesters to total 4 units per semester.
  - Select SIX appropriate units from the following program:

**Year 1, Semester 1**

Units as per selected major

**Year 1, Semester 2**

Units as per selected major

**Year 2, Semester 1**

LQB386    Microbial Structure and Function  
 NQB322    Invertebrate Biology  
 NQB323    Plant Biology

**Year 2, Semester 2**

LQB489    Plant Physiology and Cell Biology  
 NQB403    Soils and the Environment  
 NQB423    Vertebrate Biology

**Year 3, Semester 1**

NQB502    Field Methods in Natural Resource Sciences  
 NQB503    Spatial Analysis of Environmental Systems

**Year 3, Semester 2**

NQB601    Sustainable Environmental Management

**Recommended Majors:**

This second major is compatible with any Science major

**Note:**

NQB322, NQB323 and NQB423 are mandatory if not already taken in the major.

**Second Major in Biotechnology (compatible with Life Science or Chemistry major only)**

This second major comprises six units, in excess of those already included in your major, from Biotechnology. You will need to ensure all necessary pre- and co-requisites are satisfied. Note: LQB386 can be included in the second major when taken with a Biochemistry major.

**Recommended Majors:**

This second major is compatible with Life Science or Chemistry major only.

**Second Major in Chemistry (compatible with Life Science or Environmental Science major only)**

This second major comprises six units, in excess of those already included in your major, from Chemistry. You will need to ensure all necessary pre- and co-requisites are satisfied.

**Recommended Majors:**

This second major is compatible with Life Science or Environmental Science major only.

**Second Major in Chemistry for Industry (compatible with Chemistry major only)**

**Year 1, Semester 1**

Units as per Chemistry major

**Year 1, Semester 2**

Units as per Chemistry major

**Year 2, Semester 1**

PQB313    Analytical Chemistry For Industry  
 Plus Elective

**Year 2, Semester 2**

PQB404    Nanotechnology and Nanoscience  
 PQB423    Process Principles

**Year 3, Semester 1**

PQB513 Instrumental Analysis

Units as per selected major

PQB525 Unit Operations

Choose any 6 of the following units for years 2 and 3

## Year 3, Semester 2

PQB623 Chemistry in Industry and Technology  
Plus Elective

## Recommended Majors:

This co-major is compatible with Chemistry major only

## Second Major in Corporate IT Systems (subject to timetable availability)

### Year 1, Semester 1

Units as per selected major

### Year 1, Semester 2

Units as per selected major

### Years 2 and 3, Semester 1

INB120 Corporate Systems  
INB220 Business Analysis  
Select ONE unit from:  
INB221 Technology Management  
INB312 Enterprise Systems Applications  
INB321 Business Process Management  
INB322 Information Systems Consulting

### Years 2 and 3, Semester 2

INB103 Industry Insights  
INB123 Project Management Practice  
INB335 Information Resources

## Recommended Majors:

This second major is compatible with any Science major

## Second Major in Ecology (compatible with Natural Resource Science or Chemistry major only)

This second major comprises six units, in excess of those already included in your major, from Ecology. You will need to ensure all necessary pre- and co-requisites are satisfied.

## Recommended Majors:

This second major is compatible with Natural Resource Science or Chemistry major only.

## Second Major in Environmental Engineering Studies (subject to timetable availability)

### Year 1, Semester 1

Units as per selected major

### Year 1, Semester 2

### Years 2 and 3, Semester 1

ENB100 Engineering and Sustainability  
OR  
UDB100 Urban Development and Sustainability

### Years 2 and 3, Semester 2

ENB274 Design of Environmentally Sustainable Systems  
UDB164 Population and Urban Studies

### Years 2 and 3, Semester 1

ENB383 Environmental Resource Management  
UDB266 Planning Processes and Consultations

### Years 2 and 3 Semester 2

ENB380 Environmental Law and Assessment  
UDB370 Environmental Planning and Management

## Second Major in Environmental Science (compatible with Natural Res Science or Chemistry major only)

This second major comprises six units\*, in excess of those already included in your major, from Environmental Science. You will need to ensure all necessary pre- and co-requisites are satisfied.

\*Please Note: NQB403, NQB501 and NQB601 are compulsory.

## Recommended Majors:

This second major is compatible with Natural Resource Science or Chemistry major only.

## Second Major in Ethics and Human Rights (subject to timetable availability)

No longer available (2010 onwards). Students already enrolled should contact the course coordinator.

## Second Major in Foreign Languages (subject to timetable availability)

### Year 1, Semester 1

Units as per selected major

### Year 1, Semester 2

Units as per selected major

### Years 2 and 3, Semester 1 and 2

SIX units in either French or German or Indonesian or Japanese (with at least 4 units at advanced level). Note: these units may be undertaken at UQ or Griffith University

## Recommended Majors:

This co-major is compatible with any Science major

## Second Major in Forensic Science (compatible with Life Science or Chemistry major only)

This second major comprises six units, in excess of those already included in your major, from Forensic Science. You will need to ensure all necessary pre- and co-requisites are satisfied.

## Recommended Majors:

This second major is compatible with Life Science or Chemistry major only.

## Second Major in Games Technology (subject to timetable availability)

### Year 1, Semester 1

Units as per selected major

### Year 1, Semester 2

Units as per selected major

Select a total of 6 units from Years 2 and 3, Semesters 1 and 2:

### Years 2 and 3, Semester 1

INB104	Building IT Systems
INB270	Programming
INB370	Software Development
INB371	Data Structures and Algorithms
INB382	Real Time Rendering Techniques
INB383	AI for Games

### Years 2 and 3, Semester 2

INB104	Building IT Systems
INB270	Programming
INB381	Modelling and Animation Techniques
MAB281	Mathematics for Computer Graphics

## Recommended Majors:

This second major is compatible with any Mathematics or Physics major

## Second Major in Geography (subject to timetable availability)

### Year 1, Semester 1

Units as per selected major

### Year 1, Semester 2

Units as per selected major

### Years 2 and 3, Semester 1

CLB113 Australian Geographical Studies

Plus TWO units in consultation with the course coordinator.

### Years 2 and 3, Semester 2

CLB105	Australia and the South Pacific
CLB110	Environment and Society
CLB111	Environmental Hazards

## Recommended Majors:

This second major is compatible with any Natural Resource Science major

## Second Major in Geoscience (compatible with a Natural Resource Science or Physics major only)

This second major comprises six units, in excess of those already included in your major, from Geoscience. You will need to ensure all necessary pre- and co-requisites are satisfied.

## Recommended Majors:

This second major is compatible with Natural Resource Science or Physics major only.

## Second Major in Journalism (subject to timetable availability)

### Year 1, Semester 1

Units as per selected major

### Year 1, Semester 2

Units as per selected major

### Years 2 and 3, Semester 1

KJB101	Digital Journalism
KJB120	Newswriting
KJB239	Journalism Ethics and Issues

### Years 2 and 3, Semester 2

KFB205	Fashion and Style Journalism
KJB224	Feature Writing
KJB280	International Journalism

## Recommended Majors:

This second major is compatible with any Science major

## Second Major in Life Science Technologies (compatible with any Life Science major)

### Year 1, Semester 1

Units as per selected major

### Year 1, Semester 2

Units as per selected major

### Year 2, Semester 1

- LQB388 Medical Physiology 1  
Plus either:  
LQB383 Molecular and Cellular Regulation  
Or  
LQB386 Microbial Structure and Function

**Year 2, Semester 2**

- LQB488 Medical Physiology 2  
Or  
LQB489 Plant Physiology and Cell Biology

**Year 3, Semesters 1 and 2**

Select a total of THREE units from semester 1 and 2 units listed:

- LQB582 Biomedical Research Technologies  
LQB584 Medical Cell Biology  
LQB585 Plant Genetic Manipulation  
LQB588 Applied Medical Physiology

**Year 3, Semester 2**

- LQB681 Biochemical Research Skills  
LQB684 Medical Biotechnology  
LQB685 Plant Microbe Interactions  
LQB686 Microbial Technology and Immunology

**Recommended Majors:**

This second major is compatible with any Life Science major (ie Biochemistry, Biotechnology, Microbiology)

**Second Major in Management (subject to timetable availability)**

**Year 1, Semester 1**

Units as per selected major

**Year 1, Semester 2**

Units as per selected major

**Years 2 and 3, Semesters 1 and 2**

- BSB115 Management  
MGB200 Leading Organisations  
MGB210 Managing Operations  
MGB223 Entrepreneurship and Innovation  
MGB309 Strategic Management  
Plus either:  
MGB310 Sustainability in A Changing Environment  
Or  
MGB225 Intercultural Communication and Negotiation Skills

**Recommended Majors:**

This second major is compatible with any Science major

**Second Major in Marketing (subject to timetable availability)**

**Year 1, Semester 1**

Units as per selected major

**Year 1, Semester 2**

Units as per selected major

**Years 2 and 3, Semesters 1 and 2**

- AMB200 Consumer Behaviour  
AMB201 Marketing and Audience Research  
AMB240 Marketing Planning and Management  
BSB126 Marketing  
Select TWO units from:  
AMB202 Integrated Marketing Communication  
AMB335 E-marketing Strategies  
AMB336 International Marketing  
AMB340 Services Marketing

**Recommended Majors:**

This second major is compatible with any Science major

**Second Major in Mathematics (compatible with any Science major)**

Please consult the Mathematics coordinator, Dr Dann Mallet (Email: dg.mallet@qut.edu.au) and the MA54 Bachelor of Mathematics course structure

**Second Major in Microbiology (compatible with Life Science or Chemistry major only)**

This second major comprises six units, in excess of those already included in your major, from Microbiology. You will need to ensure all necessary pre- and co-requisites are satisfied.

**Recommended Majors:**

This second major is compatible with Life Science or Chemistry major only.

**Second Major Music (subject to timetable availability)**

**Year 1, Semester 1**

Units as per selected major

**Year 1, Semester 2**

Units as per selected major

**Years 2 and 3, Semester 1**

- KMB003 Sex Drugs Rock 'N' Roll  
KMB004 World Music  
KMB119 Music and Sound Production 1



## Years 2 and 3, Semester 2

KMB107	Sound, Image, Text
KMB129	Music and Sound Production 2
KMB252	Multi-Platform Sound Design

### Recommended Majors:

This second major is compatible with any Science major

## Second Major in Nutrition (compatible with any Life Science major)

### Year 1, Semester 1

Units as per selected major

### Year 1, Semester 2

Units as per selected major

## Years 2 and 3, Semester 1

LQB388	Medical Physiology 1
PUB474	Food Science

## Years 2 and 3, Semester 2

LQB488	Medical Physiology 2
PUB201	Food and Nutrition
PUB405	Nutrition Science
LQB481	Biochemical Pathways and Metabolism
	OR
LQB484	Introduction to Genomics and Bioinformatics
	All students should select LQB481 except Biochemistry major students who must select LQB484.

### Recommended Majors:

This second major is compatible with Life Science majors

## Second Major in Physics (compatible with Geoscience major only)

This second major comprises six units, in excess of those already included in your major, from Physics. You will need to ensure all necessary pre- and co-requisites are satisfied.

### Recommended Majors:

This second major is compatible with Geoscience major only.

## Second Major in Psychology (subject to timetable availability)

### Year 1, Semester 1

Units as per selected major

### Year 1, Semester 2

Units as per selected major

## Years 2 and 3, Semester 1

PYB100	Foundation Psychology
PYB202	Social and Organisational Psychology
PYB304	Physiological Psychology

## Years 2 and 3, Semester 2

PYB007	Interpersonal Processes and Skills
PYB203	Developmental Psychology
PYB204	Perception and Cognition

### Recommended Majors:

This second major is compatible with any Science major

## Second Major in Spatial Science (subject to timetable availability)

### Year 1, Semester 1

Units as per selected major

### Year 1, Semester 2

Units as per selected major

## Years 2 and 3, Semester 1

UDB181	Geospatial Positioning and GPS
UDB281	Geographic Information Systems
UDB381	Geospatial Mapping
UDB387	Spatial and Land Information Management
	OR
UDB388	Spatial Analysis Practice
	Please Note: UDB388 is a semester 2 unit.

## Years 2 and 3, Semester 2

UDB182	Surveying
UDB282	Remote Sensing

### Recommended Majors:

This second major is compatible with any Science majors

### Potential Careers:

Actuary, Air Traffic Controller, Analytical Chemist, Astrophysicist, Biochemist, Biologist, Biotechnologist, Chemist, Chemist Industrial, Coastal Scientist, Conservation Biologist, Database Manager, Ecologist, Environmental Scientist, Exploration Geologist, Forensic Biologist, Forensic Chemist, Forensic Scientist, Geologist, Geophysicist, Geoscientist, Health Physicist, Hydrogeologist, Immunologist, Industrial Chemist, Laboratory Technician (Chemistry), Marine Scientist, Mathematician, Medical Biotechnologist, Medical Physicist, Microbiologist, Mine Geologist, Molecular Biologist, Natural Resource Scientist, Pharmaceutical Research Scientist, Physicist, Plant Biotechnologist, Population Ecologist, Programmer, Quantitative Analyst, Research and Development Chemist, Statistician, Virologist.

## Bachelor of Applied Science & Bachelor of Applied Science (Honours) - Dean's Scholars Accelerated Honours Program (SC01 + SC60)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 003502J/009041G

**Course duration (full-time):** 3 Years (plus initial summer term)

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February: Fixed Closing Date- 26 November 2010.

**International Entry:** February: Fixed Closing Date- 26 November 2010. This course is only available to international students completing Year 12 in Australia.

**QTAC code:** 418042

**Past rank cut-off:** 97 plus successful questionnaire and interview. Please refer to Additional Entry Requirements.

**Past OP cut-off:** 2 plus successful questionnaire and interview. Please refer to Additional Entry Requirements.

**Assumed knowledge:** English (4, SA) and Maths B (4, VHA) plus two (2) of Biological Science, Chemistry, Earth Science, Maths C or Physics (4, VHA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384 [BAppSc 288 cp and BAppSc(Hons) 96 cp]

**Course coordinator:** Mr Richard Thomas

**Discipline coordinator:** Associate Professor John Aaskov (Microbiology, Biochemistry, Biotechnology Majors); Dr Madeleine Schultz (Chemistry Major); Dr Konstantin Momot (Physics major)

**Campus:** Gardens Point

### Overview

The Bachelor of Applied Science Dean's Scholars Accelerated Honours Program is an accelerated program designed specifically for outstanding current, or returning from a gap year, Year 12 students who completed their Year 12 education in Australia. It also offers an accelerated pathway that enables students to complete both the Bachelor of Applied Science and the Bachelor of Applied Science (Honours) courses in just three years. A scholarship is offered to students in the Bachelor of Applied Science Dean's Scholars Accelerated Honours Program. Students are accepted into the program on the basis of outstanding academic ability and an interest in scientific research.

### Additional Entry Requirements

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

Shortlisted registrants may be required to attend an

interview in December and will be notified of date and venue after registrations close.

### Professional Recognition

As a graduate of the Bachelor of Applied Science Dean's Scholars Accelerated Honours Program you will qualify for professional recognition and employment in fields relevant to the specialisations that you have chosen. It is expected that many Dean's Scholars will proceed to Doctor of Philosophy studies.

### Financial support

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

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

### Fixed Closing Date

Applications for this program will close on **26 November, 2010**.

### Who should apply?

The program is open to applicants currently undertaking Year 12 studies at a secondary school, and who achieve an OP 1 or 2 (or interstate equivalent). Applicants must be outstanding current, or returning from a gap year, Year 12 students who completed their Year 12 education in Australia.

### Deferment

QUT's deferment policy does not apply to this course.

### Course Structure

As a student in the Dean's Scholars Accelerated Honours Program you will choose one of the following nine majors. You will also choose a co-major to accompany your major area of study. The co-major may be one of the other majors, or it could be one of the co-majors listed below:

**Majors:** Biochemistry, Biotechnology, Chemistry, Ecology, Environmental Science, Forensic Science, Geoscience, Microbiology, Physics.

**Co-majors:** Applied Geology, Astrophysics, Biodiversity, Chemistry for Industry, Life Science Technologies.

To allow the Dean's Scholars Program to be completed in an accelerated format some changes are made to the first year of the standard Bachelor of Applied Science (SC01) degree. The core units normally studied in first year are replaced by an enriched course of study which includes the following units:

### SCB301 Science for Dean's Scholars

An intensive preparatory program immediately preceding the commencement of the first semester. This preparatory program commences mid-January and requires attendance

for approximately 18 hours per week for six weeks.

Email: [j.mcmurtrie@qut.edu.au](mailto:j.mcmurtrie@qut.edu.au)

### **SCB303 Tutorial Program for Dean's Scholars**

An individually-tailored tutorial program during the first semester, under the guidance of an academic mentor. This unit is designed in a consultative process involving the student, the academic mentor, and the Dean.

### **SCB401 Research Methods for Dean's Scholars**

The unit allows research skills to be developed through a literature review, experimental design considerations, research proposal formulation and writing, and the presentation of a research proposal.

### **SCB501 Research Project for Dean's Scholars**

An individually tailored research project is carried out under the supervision of a research mentor.

### **Honours Program**

Following the successful completion of the coursework and your initial research project in the first two years of the program, you will then commence the Bachelor of Applied Science (Honours) course. The Honours program continues the study of your chosen scientific major and also provides the opportunity to undertake a large research project. The Honours degree provides an excellent preparation to continue onto postgraduate research.

### **Note:**

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

### **OP Guarantee**

The OP Guarantee does not apply to this course

### **Further Information**

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

#### **Course Coordinator**

Dr Dann Mallet  
Phone: +61 7 3138 2354  
Email: [dg.mallet@qut.edu.au](mailto:dg.mallet@qut.edu.au)

#### **Discipline Coordinators**

##### **Life Sciences Major:**

Associate Professor John Aaskov  
Phone: +61 7 3138 2144  
Email: [j.aaskov@qut.edu.au](mailto:j.aaskov@qut.edu.au)

##### **Natural Resource Sciences Major:**

Associate Professor David Gust  
Phone: +61 7 3138 2217  
Email: [d.gust@qut.edu.au](mailto:d.gust@qut.edu.au)

##### **Physical & Chemical Sciences Major:**

Dr John McMurtrie  
Phone: +61 7 3138 1220

### **Course structure - Majors in Biochemistry, Biotechnology and Microbiology**

#### **Year 1, Summer Term (24 cp)**

Dean's Scholars Program enrichment unit:

SCB301 Science for Dean's Scholars

#### **Year 1, Semester 1 (60 cp)**

Dean's Scholars Program enrichment unit:

SCB303 Tutorial Program for Dean's Scholars

Normal BAppSc and BAppSc(Hons) units:  
BAppSc Coursework (48 cp)

#### **Year 1, Semester 2 (60 cp)**

Dean's Scholars Program enrichment unit:

SCB401 Research Methods for Dean's Scholars

Normal BAppSc and BAppSc(Hons) units:  
BAppSc Coursework (48 cp)

#### **Year 2, Semester 1 (72 cp)**

Dean's Scholars Program enrichment unit:

SCB501-1 Research Project for Dean's Scholars

SCB501-2 Research Project for Dean's Scholars

Note: It may be possible/required to take  
SCB501-2 in the following semester.

Normal BAppSc and BAppSc(Hons) units:  
BAppSc Coursework (48 cp)

#### **Year 2, Semester 2 (60 cp)**

Dean's Scholars Program enrichment unit:  
Elective (12 cp)

Normal BAppSc and BAppSc(Hons) units:  
BAppSc Coursework (48 cp)

#### **Year 3, Semester 1 (60 cp) and Semester 2 (48 cp)**

Normal BAppSc and BAppSc(Hons) units:  
BAppSc + BAppSc(Hons) Coursework (12cp +  
36 cp respectively)

Normal BAppSc and BAppSc(Hons) units:  
BAppSc(Hons) Research (60 cp)

### **Course structure - Major in Chemistry**

#### **Year 1, Summer Term (24 cp)**

Dean's Scholars Program enrichment unit:

SCB301 Science for Dean's Scholars

#### **Year 1, Semester 1 (60 cp)**

Dean's Scholars Program enrichment unit:

SCB303 Tutorial Program for Dean's Scholars

Normal BAppSc and BAppSc(Hons) units:  
BAppSc Coursework (48 cp)

#### **Year 1, Semester 2 (60 cp)**

Dean's Scholars Program enrichment unit:

Elective (12 cp)

Normal BAppSc and BAppSc(Hons) units:  
BAppSc Coursework (48 cp)

BAppSc Coursework (24 cp)

**Year 2, Semester 1 (60 cp)**

Dean's Scholars Program enrichment unit:

SCB401 Research Methods for Dean's Scholars

Normal BAppSc and BAppSc(Hons) units:  
BAppSc Coursework (48 cp)

**Year 2, Semester 2 (72 cp)**

Dean's Scholars Program enrichment unit:

SCB501-1 Research Project for Dean's Scholars

SCB501-2 Research Project for Dean's Scholars

Note: It may be possible/required to take  
SCB501-2 in the following semester.

Normal BAppSc and BAppSc(Hons) units:  
BAppSc Coursework (48 cp)

**Year 3, Semester 1 (60 cp) and Semester 2 (48 cp)**

Normal BAppSc and BAppSc(Hons) units:  
BAppSc + BAppSc(Hons) Coursework (12 cp +  
36 cp respectively)

Normal BAppSc and BAppSc(Hons) units:  
BAppSc(Hons) Research (60 cp)

**Year 3, Semester 1 (60 cp) and Semester 2 (48 cp)**

Normal BAppSc and BAppSc(Hons) units:  
BAppSc + BAppSc(Hons) Coursework (12 cp +  
36 cp respectively)

Normal BAppSc and BAppSc(Hons) units:  
BAppSc(Hons) Research (60 cp)

**Potential Careers:**

Actuary, Air Traffic Controller, Analytical Chemist, Astrophysicist, Biochemist, Biologist, Biotechnologist, Cell Biologist, Chemist, Chemist Industrial, Coastal Scientist, Conservation Biologist, Database Manager, Ecologist, Environmental Scientist, Exploration Geologist, Forensic Chemist, Forensic Scientist, Geologist, Geophysicist, Geoscientist, Health Physicist, Hydrogeologist, Immunologist, Industrial Chemist, Laboratory Technician (Chemistry), Marine Scientist, Mathematician, Medical Biotechnologist, Medical Physicist, Microbiologist, Mine Geologist, Molecular Biologist, Natural Resource Scientist, Pharmaceutical Research Scientist, Physicist, Plant Biotechnologist, Population Ecologist, Programmer, Quantitative Analyst, Research and Development Chemist, Statistician, Virologist.

**Course structure - Major in Physics**

**Year 1, Summer Term (24 cp)**

Dean's Scholars Program enrichment unit:

SCB301 Science for Dean's Scholars

**Year 1, Semester 1 (60 cp)**

Dean's Scholars Program enrichment unit:

SCB303 Tutorial Program for Dean's Scholars

Normal BAppSc and BAppSc(Hons) units:  
BAppSc Coursework (48 cp)

**Year 1, Semester 2 (60 cp)**

Dean's Scholars Program enrichment unit:  
Elective (12 cp)

Normal BAppSc and BAppSc(Hons) units:  
BAppSc Coursework (48 cp)

**Year 2, Semester 1 (60 cp)**

Dean's Scholars Program enrichment unit  
(approved Physics elective)

Normal BAppSc and BAppSc(Hons) units:  
BAppSc Coursework (48 cp)

**Year 2, Semester 2 (72 cp)**

Dean's Scholars Program enrichment unit:

SCB501-1 Research Project for Dean's Scholars

SCB501-2 Research Project for Dean's Scholars

Note: It may be possible/required to take  
SCB501-2 in the following semester.

Normal BAppSc and BAppSc(Hons) units:



## Bachelor of Applied Science/Bachelor of Mathematics (SC20)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 049434C

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$11,875 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418712

**Past rank cut-off:** 81

**Past OP cut-off:** 10

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr Perry Hartfield (Science Major); Professor Graeme Pettet (Mathematics Major)

**Campus:** Gardens Point

### Course Overview

Studying a double degree in applied science and mathematics will provide you with advanced knowledge and skills that are highly sought after by employers. A stronger training in mathematics and statistics enhances your capabilities in modelling analysis and design.

This four year double degree course integrates studies in one of the science majors with studies in mathematics. The science majors available are biochemistry, biotechnology, chemistry, ecology, environmental science, forensic science, geoscience, microbiology and physics.

The mathematics component offers studies in core mathematics, applied mathematics, computational mathematics, discrete mathematics, financial mathematics, mathematical modelling, operations research, statistics, statistical modelling, scientific computation and data visualisation.

### Career Outcomes

Graduates find work in a diverse range of exciting fields. Some examples include:

- natural resources: measuring fish populations and predicting sustainable fishing limits
- agriculture: from climate modelling to the interaction between crop yields and prices, harvest schedules and environmental impacts
- genetics: including gene sequencing and quantitative genetics
- chemistry and biochemistry: operations research and statistical techniques to improve workflow processes of chemical laboratories. Scientific computation and visualisation related to research areas such as drug design using combinatorial chemistry

- infection and disease control: using statistics and mathematical modelling
- bioinformatics: analysing and modelling data arising in molecular biology, genome sequencing and gene networks
- physical measuring and imaging techniques: measuring and modelling using applied and computational mathematics.

### Professional Recognition

Membership of the Australian Mathematical Society, the Statistical Society of Australia and the Australian Society for Operations Research is available. Graduates will satisfy the requirements for membership in the relevant professional body for their chosen science major.

### Financial Support

You should consider applying for an industry-sponsored mathematics bursary to help you financially throughout your studies. For further information visit [scholarships](#).

### Recommended Study

Maths C and knowledge of at least one of the sciences. For the majors in biochemistry, biotechnology, forensic science, and microbiology - Biological Science and Chemistry are recommended.

### 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](#).

### Further Information

For further information about this course please contact:

#### Science Coordinator

Dr Perry Hartfield

Phone: +61 7 3138 2984

Email: [p.hartfield@qut.edu.au](mailto:p.hartfield@qut.edu.au)

Alternative phone contact: +61 7 3138 2782

Alternative email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

#### Mathematics Coordinator

Professor Graeme Pettet

Phone: +61 7 3138 5238

Email: [g.pettet@qut.edu.au](mailto:g.pettet@qut.edu.au)

### Course structure

Students must complete at least (a) 192 credit points (16 twelve credit point units) of Mathematics units and (b) 192 credit points (16 twelve credit point units) of Science units, according to the requirements as follows:

#### Level 1 Units:

Students must complete the following Level 1 Mathematics units:

MAB101	Statistical Data Analysis 1
MAB120	Algebra and Calculus



# FACULTY OF SCIENCE AND TECHNOLOGY

MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry
MAB210	Statistical Modelling 1
MAB220	Computational Mathematics 1

**NOTE:** MAB120 is for students who do not have an exit assessment of at least Sound Achievement in four semesters of both Senior Mathematics B and Senior Mathematics C (or equivalent).

Students with Sound Achievement in both Senior Mathematics B and C take a level 2 Mathematics unit option instead of MAB120.

Students must complete the following Level 1 Science Foundation units:

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1
SCB112	Cellular Basis of Life

In addition, students are required to complete any mandatory units - and should complete all recommended units, specified for the science major selected.

## Level 2 and 3 Mathematics Units:

At least 120 credit points (10 twelve credit point units) must be taken from Level 2 and Level 3 Mathematics units with at least 48 credit points (4 twelve credit point units) from Level 3 Mathematics units:

Students must complete:

MAB311	Advanced Calculus
MAB312	Linear Algebra

## Level 2 and 3 Science Units:

At least 96 credit points (8 twelve-credit point units) must be taken from Level 2 and Level 3 Science units with at least 48 credit points (4 twelve credit point units) from Level 3 Science units. The science units must meet the advanced level requirements of one of the following majors of the SC01 Bachelor of Applied Science course: Biochemistry; Biotechnology; Chemistry; Ecology; Environmental Science; Forensic Science; Geoscience: Microbiology or Physics.

## Science Elective Units:

The Mathematics unit (or units) normally undertaken in the first year of SC01 Bachelor of Applied Science is replaced by a Science elective unit (or units). This Science elective unit can be from any level. The level 2 Mathematics unit in the Physics major is replaced by a level 2 Science elective unit.

## Science Units: Biochemistry Major (Mandatory units)

### Year 1, Semester 1

SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	TWO Mathematics Units

### Year 1, Semester 2 (Life Sciences Pre-Major Strand)

SCB120	Plant and Animal Physiology
SCB121	Chemistry 2
	TWO Mathematics units

### Year 2, Semester 1

SCB110	Science Concepts and Global Systems
	Science Elective unit
	TWO Mathematics units

### Year 2, Semester 2

SCB122	Cell and Molecular Biology
SCB123	Physical Science Applications
	TWO Mathematics units

### Year 3, Semester 1

LQB381	Biochemistry: Structure and Function
LQB383	Molecular and Cellular Regulation
	TWO Mathematics units

### Year 3, Semester 2

LQB481	Biochemical Pathways and Metabolism
LQB483	Molecular Biology Techniques
	TWO Mathematics units

### Year 4, Semester 1

LQB581	Functional Biochemistry
LQB582	Biomedical Research Technologies
	TWO Mathematics units

### Year 4, Semester 2

LQB681	Biochemical Research Skills
LQB682	Protein Biochemistry and Bioengineering
	TWO Mathematics units

## Science Units: Biotechnology Major (Mandatory units)

### Year 1, Semester 1

SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	TWO Mathematics units

### Year 1, Semester 2 (Life Sciences Pre-Major Strand)

SCB120	Plant and Animal Physiology
SCB121	Chemistry 2
	TWO Mathematics units

### Year 2, Semester 1

SCB110	Science Concepts and Global Systems
	Science Elective unit
	TWO Mathematics units

### Year 2, Semester 2

# FACULTY OF SCIENCE AND TECHNOLOGY

SCB122 Cell and Molecular Biology  
 SCB123 Physical Science Applications  
 TWO Mathematics units

## Year 3, Semester 1

LQB381 Biochemistry: Structure and Function  
 LQB383 Molecular and Cellular Regulation  
 TWO Mathematics units

## Year 3, Semester 2

LQB483 Molecular Biology Techniques  
 LQB484 Introduction to Genomics and Bioinformatics  
 TWO Mathematics units

## Year 4, Semester 1

TWO units from:  
 LQB583 Genetic Research Technology  
 LQB584 Medical Cell Biology  
 LQB585 Plant Genetic Manipulation  
 TWO Mathematics units

## Year 4, Semester 2

TWO units from:  
 LQB682 Protein Biochemistry and Bioengineering  
 LQB684 Medical Biotechnology  
 LQB685 Plant Microbe Interactions  
 TWO Mathematics units

## Science Units: Chemistry Major (Mandatory units)

### Year 1, Semester 1

SCB111 Chemistry 1  
 SCB112 Cellular Basis of Life  
 TWO Mathematics units

### Year 1, Semester 2 (Chemistry Pre-Major Strand)

SCB121 Chemistry 2  
 SCB123 Physical Science Applications  
 TWO Mathematics units

### Year 2, Semester 1

SCB110 Science Concepts and Global Systems  
 Science Elective unit  
 TWO Mathematics units

### Year 2, Semester 2

SCB131 Experimental Chemistry  
 Science Elective unit  
 TWO Mathematics units

### Year 3, Semester 1

PQB312 Analytical Chemistry For Scientists and Technologists

PQB331 Structure and Bonding  
 TWO Mathematics units

## Year 3, Semester 2

PQB401 Reaction Kinetics, Thermodynamics and Mechanisms  
 PQB442 Chemical Spectroscopy  
 TWO Mathematics units

## Year 4, Semester 1

PQB502 Advanced Physical Chemistry  
 PQB531 Organic Mechanisms and Synthesis  
 TWO Mathematics units

## Year 4, Semester 2

PQB631 Advanced Inorganic Chemistry  
 PQB642 Chemical Research  
 TWO Mathematics units

## Science Units: Ecology Major (Mandatory units)

### Year 1, Semester 1

SCB111 Chemistry 1  
 TWO Mathematics units  
 SCB112 Cellular Basis of Life

### Year 1, Semester 2 (Ecology and Environmental Science Pre-Major Strand)

SCB120 Plant and Animal Physiology  
 SCB122 Cell and Molecular Biology  
 TWO Mathematics units

### Year 2, Semester 1

SCB110 Science Concepts and Global Systems  
 Science Elective unit  
 TWO Mathematics units

### Year 2, Semester 2

NQB201 Planet Earth  
 NQB202 History of Life on Earth  
 TWO Mathematics units

### Year 3, Semester 1

NQB302 Earth Surface Systems  
 NQB321 Ecology  
 TWO Mathematics units

### Year 3, Semester 2

NQB421 Experimental Design  
 NQB422 Genetics and Evolution  
 TWO Mathematics units

### Year 4, Semester 1

NQB521 Population Genetics and Molecular Ecology  
 NQB523 Population Management  
 TWO Mathematics units

**Year 4, Semester 2**

NQB622 Conservation Biology  
 NQB623 Ecological Systems  
 TWO Mathematics units

**Science Units: Environmental Science Major (Mandatory units)**

**Year 1, Semester 1**

SCB111 Chemistry 1  
 SCB112 Cellular Basis of Life  
 TWO Mathematics units

**Year 1, Semester 2 (Ecology and Environmental Science Pre-Major Strand)**

SCB120 Plant and Animal Physiology  
 SCB121 Chemistry 2  
 TWO Mathematics units

**Year 2, Semester 1**

SCB110 Science Concepts and Global Systems  
 SCB123 Physical Science Applications  
 TWO Mathematics units

**Year 2, Semester 2**

NQB202 History of Life on Earth  
 Science Elective unit  
 TWO Mathematics units

**Year 3, Semester 1**

NQB302 Earth Surface Systems  
 NQB321 Ecology  
 TWO Mathematics units

**Year 3, Semester 2**

NQB403 Soils and the Environment  
 NQB421 Experimental Design  
 TWO Mathematics units

**Year 4, Semester 1**

NQB501 Environmental Modelling  
 NQB502 Field Methods in Natural Resource Sciences  
 TWO Mathematics units

**Year 4, Semester 2**

NQB601 Sustainable Environmental Management  
 NQB602 Environmental Chemistry  
 TWO Mathematics units

**Science Units: Forensic Science Major (Mandatory**

**units)**

**Year 1, Semester 1**

SCB111 Chemistry 1  
 SCB112 Cellular Basis of Life  
 TWO Mathematics units

**Year 1, Semester 2 (Forensic Science Pre-Major Strand)**

SCB121 Chemistry 2  
 SCB122 Cell and Molecular Biology  
 TWO Mathematics units

**Year 2, Semester 1**

SCB110 Science Concepts and Global Systems  
 Science Elective unit  
 TWO Mathematics units

**Year 2, Semester 2**

SCB123 Physical Science Applications  
 SCB131 Experimental Chemistry  
 TWO Mathematics units

**Year 3, Semester 1**

LQB383 Molecular and Cellular Regulation  
 SCB384 Forensic Sciences - From Crime Scene to Court  
 TWO Mathematics units

**Year 3, Semester 2**

JSB979 Forensic Scientific Evidence  
 PQB312 Analytical Chemistry For Scientists and Technologists  
 TWO Mathematics units

**Year 4, Semester 1**

PQB513 Instrumental Analysis  
 PQB584 Forensic Physical Evidence  
 TWO Mathematics units

**Year 4, Semester 2**

LQB680 Forensic DNA Profiling  
 PQB684 Forensic Analysis  
 TWO Mathematics units

**Science Units: Geoscience Major (Mandatory units)**

**Year 1, Semester 1**

SCB111 Chemistry 1  
 SCB112 Cellular Basis of Life  
 TWO Mathematics units

**Year 1, Semester 2 ( Geoscience Pre-Major Strand)**

NQB201 Planet Earth

# FACULTY OF SCIENCE AND TECHNOLOGY

SCB123 Physical Science Applications  
TWO Mathematics units

## Year 2, Semester 1

SCB110 Science Concepts and Global Systems  
Science Elective unit  
TWO Mathematics units

## Year 2, Semester 2

NQB202 History of Life on Earth  
SCB222 Exploration of the Universe  
TWO Mathematics units

## Year 3, Semester 1

NQB311 Mineralogy  
NQB314 Sedimentary Geology  
TWO Mathematics units

## Year 3, Semester 2

NQB411 Petrology of Igneous and Metamorphic Rocks  
NQB412 Structural Geology and Field Methods  
TWO Mathematics units

## Year 4, Semester 1

NQB502 Field Methods in Natural Resource Sciences  
NQB513 Geophysics  
TWO Mathematics units

## Year 4, Semester 2

NQB615 Geochemistry  
Plus ONE of  
NQB612 Basin Analysis and Petroleum Geology  
NQB613 Plate Tectonics  
NQB614 Groundwater Systems  
TWO Mathematics units

## Science Units: Microbiology Major (Mandatory units)

### Year 1, Semester 1

SCB111 Chemistry 1  
SCB112 Cellular Basis of Life  
TWO Mathematics units

### Year 1, Semester 2 (Life Sciences Pre-Major Strand)

SCB120 Plant and Animal Physiology  
SCB121 Chemistry 2  
TWO Mathematics units

### Year 2, Semester 1

SCB110 Science Concepts and Global Systems  
Science Elective unit  
TWO Mathematics units

### Year 2, Semester 2

SCB122 Cell and Molecular Biology  
SCB123 Physical Science Applications  
TWO Mathematics units

### Year 3, Semester 1

LQB381 Biochemistry: Structure and Function  
LQB386 Microbial Structure and Function  
TWO Mathematics units

### Year 3, Semester 2

LQB483 Molecular Biology Techniques  
LQB486 Clinical Microbiology 1  
TWO Mathematics units

### Year 4, Semester 1

LQB586 Clinical Microbiology 2  
LQB587 Applied Microbiology 1: Water, Air and Soil  
TWO Mathematics units

### Year 4, Semester 2

LQB686 Microbial Technology and Immunology  
LQB687 Applied Microbiology 2: Food and Quality Assurance  
TWO Mathematics units

## Science Units: Physics Major (Mandatory units)

### Year 1, Semester 1

SCB110 Science Concepts and Global Systems  
SCB111 Chemistry 1  
TWO Mathematics units

### Year 1, Semester 2 (Physics Pre-Major Strand)

PQB250 Mechanics and Electromagnetism  
Science Elective unit  
TWO Mathematics units

### Year 2, Semester 1

SCB112 Cellular Basis of Life  
Science Elective unit  
TWO Mathematics units

### Year 2, Semester 2

PQB251 Waves and Optics  
Science Elective unit  
TWO Mathematics units

### Year 3, Semester 1

PQB350 Thermodynamics of Solids and Gases  
Level 2 Science Elective unit  
TWO Mathematics units

**Year 3, Semester 2**

PQB450 Energy, Fields and Radiation  
PQB451 Electronics and Instrumentation  
TWO Mathematics units

**Year 4, Semester 1**

PQB550 Quantum and Condensed Matter Physics  
PQB551 Physical Analytical Techniques  
TWO Mathematics units

**Year 4, Semester 2**

PQB650 Advanced Theoretical Physics  
PQB651 Experimental Physics  
TWO Mathematics units

**Mathematics Component (Mandatory units) (WITH Maths C)**

For Students with at least Sound Achievement in both Senior Mathematics B and C

**Year 1, Semester 1**

MAB101 Statistical Data Analysis 1  
MAB121 Calculus and Differential Equations  
Plus TWO units selected according to the Science major requirements

**Year 1, Semester 2**

MAB122 Algebra and Analytic Geometry  
MAB210 Statistical Modelling 1  
Plus TWO units selected according to the Science major requirements

**Year 2, Semester 1**

MAB220 Computational Mathematics 1  
MAB311 Advanced Calculus  
Plus TWO units selected according to the Science major requirements

**Year 2, Semester 2**

TWO Mathematics unit  
Plus TWO units selected according to the Science major requirements

**Year 3, Semester 1**

MAB312 Linear Algebra  
ONE Mathematics unit  
Plus TWO units selected according to the Science major requirements

**Year 3, Semester 2**

TWO Mathematics units  
Plus TWO units selected according to the Science major requirements

**Year 4, Semester 1**

TWO Level 3 Mathematics units  
Plus TWO units selected according to the Science major requirements

**Year 4, Semester 2**

TWO Level 3 Mathematics units  
Plus TWO units selected according to the Science major requirements

**Mathematics Component (Mandatory units) (WITHOUT Maths C)**

For Students with Sound Achievement or Better in Senior Mathematics B Only

**Year 1, Semester 1**

MAB101 Statistical Data Analysis 1  
MAB120 Algebra and Calculus  
Plus TWO unit selected according to the Science major

**Year 1, Semester 2**

MAB121 Calculus and Differential Equations  
MAB122 Algebra and Analytic Geometry  
Plus TWO unit selected according to the Science major

**Year 2, Semester 1**

MAB220 Computational Mathematics 1  
MAB311 Advanced Calculus  
Plus TWO units selected according to the Science major

**Year 2, Semester 2**

MAB210 Statistical Modelling 1  
ONE Mathematics unit  
Plus TWO unit selected according to the Science major

**Year 3, Semester 1**

MAB312 Linear Algebra  
ONE Mathematics unit  
Plus TWO units selected according to the Science major

**Year 3, Semester 2**

TWO Mathematics units  
Plus TWO units selected according to the Science major

**Year 4, Semester 1**

TWO Level 3 Mathematics units  
Plus TWO units selected according to the Science major



## Year 4, Semester 2

TWO Level 3 Mathematics units  
Plus TWO units selected according to the Science major

### Mathematics Units

#### Level 1

MAB101	Statistical Data Analysis 1
MAB120	Algebra and Calculus
MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry
MAB210	Statistical Modelling 1
MAB220	Computational Mathematics 1

#### Level 2

MAB311	Advanced Calculus
MAB312	Linear Algebra
MAB313	Mathematics of Finance
MAB314	Statistical Modelling 2
MAB315	Operations Research 2
MAB413	Differential Equations
MAB414	Applied Statistics 2
MAB420	Computational Mathematics 2
MAB422	Mathematical Modelling
MAB461	Discrete Mathematics
MAB480	Introduction to Scientific Computation

#### Level 3

You must complete at least four units from:

MAB521	Applied Mathematics 3
MAB522	Computational Mathematics 3
MAB524	Statistical Inference
MAB525	Operations Research 3A
MAB533	Statistical Techniques
MAB536	Time Series Analysis
MAB613	Partial Differential Equations
MAB623	Financial Mathematics
MAB624	Applied Statistics 3
MAB625	Operations Research 3B
MAB640	Industry Project
MAB672	Advanced Mathematical Modelling

### Science Elective Units

The number of elective units will depend upon the major selected. These elective units can be selected from Faculty of Science and Technology units - make sure you meet any prerequisites and don't take an incompatible unit. Some majors include alternative units and you could select an additional unit(s) from these.

### Information on some possible Science elective units.

NQB201	Planet Earth
NQB202	History of Life on Earth
SCB120	Plant and Animal Physiology
SCB121	Chemistry 2
SCB122	Cell and Molecular Biology
SCB123	Physical Science Applications
SCB131	Experimental Chemistry
SCB222	Exploration of the Universe
NOTE:	Other elective units may be found in the co-majors listed in the SC01 Course Summary Sheet.

### Level 2 or 3 Elective Unit Suggestions for Physics Major

PQB360	Global Energy Balance and Climate Change
PQB460	Astrophysics 1
PQB660	Astrophysics 2

### Potential Careers:

Actuary, Analytical Chemist, Astrophysicist, Biochemist, Bioinformatician, Biologist, Biotechnologist, Chemist, Chemist Industrial, Coastal Scientist, Conservation Biologist, Database Manager, Ecologist, Environmental Scientist, Forensic Scientist, Geologist, Geophysicist, Geoscientist, Health Physicist, Hydrogeologist, Immunologist, Industrial Chemist, Laboratory Technician (Chemistry), Marine Scientist, Mathematician, Medical Biotechnologist, Medical Physicist, Microbiologist, Molecular Biologist, Natural Resource Scientist, Physicist, Plant Biotechnologist, Population Ecologist, Programmer, Quantitative Analyst, Statistician, Virologist.

## **Bachelor of Biomedical Science (SC40)**

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 052768K

**Course duration (full-time):** 3 Years

**Course duration (part-time):** 6 Years

**Domestic fees (indicative):** 2011: CSP \$2,388 (indicative) per semester

**International Fees (indicative):** 2011: \$12,125 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 418401

**Past rank cut-off:** 79

**Past OP cut-off:** 11

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA), Maths B (4, SA) and Chemistry (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 288

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Dr Laura Gregory

**Campus:** Gardens Point

### **Overview**

The Bachelor of Biomedical Science is a highly relevant and appropriate qualification for entry into postgraduate medicine studies. You will study a winning blend of essential science, humanities and health-related topics to give you the best grounding possible for a career in the medical profession.

### **Why Choose this Course**

QUT's real-world focus and practical approach to teaching in all degree qualifications has resulted in science graduates consistently gaining entry to postgraduate medicine studies from our courses. This course allows you to keep your options open by offering a range of alternative career paths. In the second or third year of your course you may apply for postgraduate medicine studies by sitting the entrance exam (GAMSAT).

### **Career Outcomes**

This course provides a solid foundation for the areas tested in GAMSAT. Many opportunities are also available for postgraduate study in health and science, including honours and postgraduate qualifications leading to careers in medical research. The Bachelor of Biomedical Science is also designed for students seeking a science-based qualification that will lead to employment opportunities in medical biotechnology, medical microbiology and clinical biochemistry fields.

### **Professional Recognition**

Depending on the units selected in the final year of the course, graduates will be eligible for membership into one or more of the following organisations: Australian Association of Clinical Biochemists (AACB), AusBiotech Ltd, Australian

Society for Microbiology (ASM).

### **Your Course**

#### **Year 1**

In the first year of the course you will undertake units covering chemistry, physics, anatomy, and cell biology, providing a solid knowledge base for GAMSAT. With QUT's practical approach to teaching, you will not only learn the theory, but gain a wealth of practical experience in state-of-the-art laboratories. You will also gain an introduction to the essential communication skills required for a career in the health and medical professions.

#### **Year 2**

Units in the second year combine more advanced studies in cell biology with units in physiology, biochemistry, microbiology and human rights and ethics. If you wish to proceed to postgraduate medicine studies, you will have the opportunity to attend information sessions on the GAMSAT exam.

#### **Year 3**

You will have some flexibility in subject choices to allow you to tailor the qualification to suit your desired career outcomes. You may choose to take units in medical biotechnology, clinical biochemistry, or microbiology (including parasitology) and there are also opportunities to complement your scientific studies with topics such as psychology, exercise physiology, indigenous issues or ethical issues related to gene technology.

### **Recommended Study**

Biological Science.

### **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.

### **Further Information**

For further information about the course, please contact:

#### **Course Coordinator**

Dr Laura Gregory

Phone: +61 7 3138 1281

Email: [l.gregory@qut.edu.au](mailto:l.gregory@qut.edu.au)

### **Course structure - Full-time**

#### **Year 1, Semester 1**

MAB141	Mathematics and Statistics for Medical Science
SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Plus ONE elective to be chosen from the following list:
KWB101	Introduction to Creative Writing
PYB007	Interpersonal Processes and Skills

# FACULTY OF SCIENCE AND TECHNOLOGY

Or another elective to be approved by the course coordinator

## Year 1, Semester 2

LSB255	Human Anatomy
PCB150	Physics 1H
SCB121	Chemistry 2
SCB122	Cell and Molecular Biology

## Year 2, Semester 1

LQB383	Molecular and Cellular Regulation
LQB386	Microbial Structure and Function
LQB388	Medical Physiology 1
LSB325	Biochemistry

## Year 2, Semester 2

LQB483	Molecular Biology Techniques
LQB486	Clinical Microbiology 1
LSB425	Quantitative Medical Science
SWB105	Introduction to Human Rights and Ethics

## Year 3, Semester 1

LQB583	Genetic Research Technology
LQB584	Medical Cell Biology
LQB586	Clinical Microbiology 2
LSB525	Clinical Biochemistry 1

## Year 3, Semester 2

LQB488	Medical Physiology 2
LQB684	Medical Biotechnology
LSB625	Clinical Biochemistry 2
LSB658	Clinical Physiology

## NOTE:

Students may substitute ONE unit from EACH of Year 3/Semesters 1 and 2 (or Year 2/Semester 2) with an approved pair of electives from one stream only from the following list, providing that a MATCHING SET of science units is deleted: (ie. [a] LQB583 and LQB684 OR [b] LSB525 and LSB625 OR [c] LQB486 and LQB586). Students may choose to enrol in SCB500 with course coordinator approval based on the completion of 144 credit points of SC40 units. Students may then choose any unit from this list to complete the pair of electives. The elective options are subject to timetabling and campus offerings.

### PSYCHOLOGY AND COUNSELLING

Semester 1:

PYB100	Foundation Psychology
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Semester 2:

PYB208	Counselling Theory and Practice 1
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### PUBLIC HEALTH

Semester 1:

PUB104	Australian Health Care Systems or
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PUB326	Epidemiology Semester 2:
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PUB251	Contemporary Public Health or
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PUB436	Evidence Based Practice
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### EXERCISE SCIENCE FOR PREVENTIVE MEDICINE

Semester 1:

HMB271	Foundations of Motor Control, Learning and Development
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Semester 2:

HMB273	Exercise Physiology 1
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### INDIGENOUS PERSPECTIVES

Semester 1:

EDB038	Indigenous Australian Culture Studies
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Semester 2:

EDB040	Indigenous Knowledge: Research Ethics and Protocols
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### HEALTH AND SCIENCES

ECG COURSE	ECG Analysis and Interpretation Course is offered at QUT Health Clinics, Kelvin Grove or UQ Sport, St Lucia
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Semester 1:

PUB326	Epidemiology Or
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LQB588	Applied Medical Physiology Or
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LSB384	Pharmacology For Health Professionals Semester 2:
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LQB686	Microbial Technology and Immunology Or
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LSB384	Pharmacology For Health Professionals
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## Course structure - Part-time

### Year 1, Semester 1

MAB141	Mathematics and Statistics for Medical Science
SCB112	Cellular Basis of Life

### Year 1, Semester 2

LSB255	Human Anatomy
SCB122	Cell and Molecular Biology

### Year 2, Semester 1

SCB111	Chemistry 1 Plus ONE elective to be chosen from the following list:
KWB101	Introduction to Creative Writing

PYB007 Interpersonal Processes and Skills  
Or another elective to be approved by the course coordinator

**Potential Careers:**

Laboratory Assistant, Laboratory Technician, Medicine (after further study), Research Assistant.

**Year 2, Semester 2**

PCB150 Physics 1H  
SCB121 Chemistry 2

**Year 3, Semester 1**

LQB383 Molecular and Cellular Regulation  
LSB325 Biochemistry

**Year 3, Semester 2**

LQB483 Molecular Biology Techniques  
LSB425 Quantitative Medical Science

**Year 4, Semester 1**

LQB386 Microbial Structure and Function  
LQB388 Medical Physiology 1

**Year 4, Semester 2**

LQB486 Clinical Microbiology 1  
SWB105 Introduction to Human Rights and Ethics

**Year 5, Semester 1**

LQB584 Medical Cell Biology  
LQB586 Clinical Microbiology 2

**Year 5, Semester 2**

LQB488 Medical Physiology 2  
LSB658 Clinical Physiology

**Year 6, Semester 1**

LQB583 Genetic Research Technology  
LSB525 Clinical Biochemistry 1

**Year 6, Semester 2**

LQB684 Medical Biotechnology  
LSB625 Clinical Biochemistry 2

**Note for Years 5 and 6:**

Students may substitute ONE unit from EACH of Year 4 Semester 2 and Year 5 Semester 1, OR Year 6 Semester 1 and Year 6 Semester 2 with an approved pair of electives from one stream only from the list which appears under the Note for Year 3 in the Full-time course structure, providing that a MATCHING SET of science units is deleted: (eg [a] LQB583 and LQB684 OR [b] LSB525 and LSB625 OR [c] LQB486 and LQB586). Students may choose to enrol in SCB500 with course coordinator approval based on the completion of 144 credit points of SC40 units. Students may then choose any unit from this list to complete the pair of electives. The elective options are subject to timetabling and campus offerings.

## Bachelor of Pharmacy (SC45)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 055902G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,458 (indicative) per semester

**International Fees (indicative):** 2011: \$11,875 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February - IELTS of 7.0 with no sub-score less than 7.0 (Quota applies)

**QTAC code:** 418512

**Past rank cut-off:** 92

**Past OP cut-off:** 5

**Assumed knowledge:** English (4, SA), Maths B (4, SA) and Chemistry (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Associate Professor Fraser Ross

**Campus:** Gardens Point

### Overview

QUT's Bachelor of Pharmacy has been designed in close consultation with the pharmacy profession to capture the latest practices and emerging trends in community and hospital pharmacy. Pharmacists play an important role in the health-care sector by dispensing medications and counselling patients on their appropriate use.

### Why Choose This Course

This course is continually updated in close consultation with senior representatives of the pharmacy profession. The inclusion of essential pharmacy and business management skills will help you to operate effectively in your chosen setting. QUT's small class sizes and comprehensive modern facilities ensure a high-quality educational experience.

### Career Outcomes

Pharmacists are employed in a range of settings including community pharmacies, hospitals, the pharmaceutical industry and in drug regulatory and research roles. Community pharmacists are often the first health professionals contacted for medical advice and play a major role as health providers and educators for the general public. Hospital pharmacists work closely with doctors in a patient-care role, conduct and manage clinical drug trials, evaluate newly released medicines and prepare medicines for patients requiring specialised treatments.

### Professional Recognition

Following graduation, approximately 12 months of pre-registration training performed under the supervision of a registered pharmacist is required to meet the registration requirements of the Pharmacists Board of Queensland.

Graduates will be eligible for membership of a number of

professional associations, including the Pharmaceutical Society of Australia, the Pharmacy Guild and the Society of Hospital Pharmacists of Australia.

### English Language Skills (Applicable to health practitioners applying for registration)

All applicants must be able to demonstrate English language skills at IELTS academic level 7.5 or equivalent. Test results from examinations will generally need to be obtained within two years prior to applying for registration.

### Other Course Requirements

You must be vaccinated for Hepatitis B and provide a post-vaccination pathological report or similar certification showing proof of immunity prior to undertaking your first clinical placement.

### Blue card

A current blue card authorised with QUT may be required prior to commencing the clinical placement components of this course. For more information visit Blue Card, and ensure that you allow adequate time for processing your application and issuing of the card in order to avoid clinical experience delays.

### Your Course

#### Year 1

You will undertake theoretical and practical studies covering chemistry, maths, anatomy and biology. You will begin practising your communication skills in QUT's pharmacy counselling room, which operates like a real pharmacy counter. You will gain an understanding of the operations of a community pharmacy, including prescription processing, product labelling, and the therapeutic use of over-the-counter (OTC) medications. You will also gain an introduction to retailing skills.

#### Year 2

You will undertake your first clinical placement in a real community pharmacy environment. At QUT you will expand your counselling skills and increase your knowledge regarding a range of OTC and prescription medications used to treat cardiovascular and gastrointestinal tract disorders. You will learn how to perform pharmaceutical calculations, prepare basic pharmaceutical products and gain a deeper understanding of how drugs interact with the human body, producing their therapeutic and sometimes adverse effects.

#### Year 3

You will proceed to topics which provide vital information to health professionals regarding the optimal choice of drug therapy for individual patients. There is an emphasis on drugs used to treat central nervous system disorders, in addition to drugs prescribed for cancer and infectious diseases. You will learn how to prepare more complex product formulations and spend three hours per week in a community or hospital pharmacy followed by a one-week full-time clinical placement in each semester.

#### Year 4

You will study further specialised topics including



pharmacotherapeutics, epidemiology and pharmacoeconomics. There is an emphasis on the integration and application of your studies into current pharmacy practice. A range of guest lecturers will also present material regarding social issues and current practices in women's and Indigenous health.

### **Recommended Study**

Biological Science.

### **OP Guarantee**

The OP Guarantee does not apply to this course.

### **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.

### **Further Information**

For further information about this course, please contact:

### **Course Coordinator**

Associate Professor Fraser Ross

Phone: +61 7 3138 2502

Email: fb.ross@qut.edu.au

### **Course structure**

#### **Year 1, Semester 1**

MAB141	Mathematics and Statistics for Medical Science
PYB007	Interpersonal Processes and Skills
SCB112	Cellular Basis of Life
SCB113	Chemistry for Health and Medical Science

#### **Year 1, Semester 2**

LSB255	Human Anatomy
SCB122	Cell and Molecular Biology
SCB131	Experimental Chemistry
SCB208	Introduction to Pharmacy Practice

#### **Year 2, Semester 1**

LQB388	Medical Physiology 1
LSB325	Biochemistry
SCB308	Pharmacy Practice 1
SCB338	Pharmaceutical Chemistry and Pharmacology 1

#### **Year 2, Semester 2**

LQB488	Medical Physiology 2
SCB408	Pharmacy Practice 2
SCB428	Pharmacokinetics
SCB438	Medicinal Chemistry and Pharmacology 2

#### **Year 3, Semester 1**

LQB386	Microbial Structure and Function
SCB508	Pharmacy Practice 3
SCB528	Pharmaceutics 1
SCB538	Pharmacology 3

#### **Year 3, Semester 2**

SCB608	Pharmacy Practice 4
SCB628	Pharmaceutics 2
SCB638	Pharmacogenomics and Drug Metabolism
SCB648	Pharmacotherapeutics 1

NOTES: - Progression to Year 4 cannot occur before the successful completion of Years 1, 2 and 3.  
- Year 4 requires enrolment in all four (4) units each semester.

#### **Year 4, Semester 1**

SCB708	Pharmacy Practice 5
SCB748	Pharmacotherapeutics 2
SCB758	Pharmacy Management 1
SCB768	Professional Placements 1

#### **Year 4, Semester 2**

SCB808	Pharmacy Practice 6
SCB848	Pharmacotherapeutics 3
SCB858	Pharmacy Management 2
SCB868	Professional Placements 2

### **Potential Careers:**

Community Pharmacist, Hospital Pharmacist, Pharmaceutical Research Scientist.

## Bachelor of Applied Science (Honours) (SC60)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 009041G

**Course duration (full-time):** 1 Year

**Course duration (part-time):** 2 Years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,375 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Course coordinator:** Associate Professor Terry Walsh

**Discipline coordinator:** Dr David Hurwood (Biogeosciences majors); Dr John McMurtrie (Chemistry Major); Associate Professor Terry Walsh (Life Science Major); Dr Troy Farrell (Mathematics Major); Dr Esa Jaatinen (Physics Major)

**Campus:** Gardens Point

### Overview

Through a combination of research and advanced coursework units, students can pursue specialised studies in a particular area of information technology. The course offers the opportunity to develop research and development skills, work on cutting-edge technology, and have access to specialist hardware and software. As a successful Honours graduate you are eligible to start a doctoral program, and can expect to obtain a research or teaching position. A wider range of career opportunities are available.

### Entry Requirements

Applicants must have:

- a bachelor degree from QUT or its equivalent, completed within 18 months prior to enrolment, with a minimum grade point average of 5 (on a 7-point scale) or its equivalent, **or**
- demonstrated outstanding performance in the final year of the degree, **or**
- work experience or research considered appropriate by the course coordinator.

### Course Design

The core of the honours program is a 36, 48, or 60 credit-point project (depending on your study area) that will provide students with the opportunity to learn about research by conducting a research project with an experienced researcher who acts as both supervisor and mentor. Students will learn the types of processes, creativity and analytical thinking that lead to scientific and technological advances and how to communicate such findings in a rigorous, systematic manner.

### Note:

*The Faculty may wish to make your honours project or thesis work available to other students undertaking Honours*

*studies as an exemplar. As the copyright owner of the work you have created, the Faculty will respect your rights and will seek your authorisation to share your work.*

### Career Outcomes

The Bachelor of Applied Science (Honours) program is designed for graduates who have excelled in their degree from a recognised tertiary institution, with major studies in a relevant discipline. The course not only enhances your professional employability in your chosen discipline but also prepares you for a research career. The Honours qualification opens a direct pathway to postgraduate studies, qualifying you for entry into Doctor of Philosophy and Master of Applied Science courses.

### Professional Recognition

Relevant scientific professional bodies include Australasian Association of Clinical Biochemists, Australasian Institute of Mining and Metallurgy, AusBiotech Ltd, Australian Institute of Geoscientists, Australian Institute of Physics, Australian Mathematical Society, Australian Society for Biochemistry and Molecular Biology, Australian Society for Medical Research, Australian Society for Microbiology, Australian Society for Operations Research, Ecological Society of Australia, Geological Society of Australia, Royal Australian Chemical Institute, and Statistical Society of Australia. Eligibility for membership is based on the combination of units undertaken in the degree and the Bachelor of Applied Science course that underpins it.

### Course Structure

The Honours year comprises coursework and a major research project supervised by QUT staff, in some cases in conjunction with local industry. Majors are offered in chemistry, ecology, environmental science, geology, life science, mathematics and physics.

### Further Information

#### Course Coordinator

Associate Professor Peter Mather

Phone: +61 7 3138 1737

Email: p.mather@qut.edu.au

#### Discipline Coordinators

##### Chemistry

Dr John McMurtrie

Phone: +61 7 3138 1220

Email: j.mcmurtrie@qut.edu.au

##### Ecology

Dr David Hurwood

Phone: +61 7 3138 5072

Email: d.hurwood@qut.edu.au

##### Environmental Science

Associate Professor Peter Mather

Phone: +61 7 3138 1737

Email: p.mather@qut.edu.au

##### Geology

Mr David Hurwood  
Phone: +61 7 3138 5072  
Email: d.hurwood@qut.edu.au

**Life Science**

Associate Professor Terry Walsh  
Phone: +61 7 3138 2347  
Email: t.walsh@qut.edu.au

**Mathematics**

Dr Troy Farrell  
Phone: +61 7 3138 2364  
Email: t.farrell@qut.edu.au

**Physics**

Dr Esa Jaatinen  
Phone: +61 7 3138 4281  
Email: e.jaatinen@qut.edu.au

**Course structure - Major in Chemistry**

**Year 1, Semester 1**

PCB700-1 Research Project  
PCB700-2 Research Project  
PCB742 Elective Unit  
PCB780-1 Advanced Topics in Chemistry 1

**Year 1, Semester 2**

PCB700-3 Research Project  
PCB700-4 Research Project  
PCB700-5 Research Project  
PCB780-2 Advanced Topics in Chemistry 1

NOTE: Students wishing to apply for entry to BAppSc(Hons) should consult with the contact person for the relevant science discipline before applying (see contact details link above).

**Course structure - Major in Ecology, Environmental Science, Geology**

**Year 1, Semester 1**

NRB720-1 Project  
NRB730-1 Research Methods and Strategies  
NRB730-2 Research Methods and Strategies  
NRB735 Advanced Studies in Resource Sciences

**Year 1, Semester 2**

NRB720-2 Project  
NRB720-3 Project  
NRB720-4 Project  
NRB720-5 Project

NOTE: Students wishing to apply for entry into BAppSc(Hons) should consult with the contact person for the relevant science discipline before applying (see contact details link above).

**Course structure - Major in Life Science**

**Year 1, Semester 1**

LSB850-1 Research Strategies  
LSB851-1 Readings in Life Science 1  
LSB852-1 Project

**Year 1, Semester 2**

LSB850-2 Research Strategies  
LSB851-2 Readings in Life Science 1  
LSB852-2 Project

NOTE: Students wishing to apply for entry into BAppSc(Hons) should consult with the contact person for the relevant science discipline before applying (see contact details link above).

**Course structure - Major in Mathematics**

**Year 1, Semester 1**

MAN787-1 Project  
36 credit points of elective units selected from the list below\*

**Year 1, Semester 2**

MAN787-2 Project  
MAN787-3 Project  
24 credit points of elective units selected from the list below\*

**Elective List (Mathematics) - 60 credit points to be selected**

MAN717 Minor Project  
MAN761 Analysis  
MAN764 Applied Mathematical Modelling  
MAN765 Bayesian Data Analysis  
MAN766 Applied Time Series Analysis  
MAN768 Advanced Techniques in Operations Research  
MAN769 Mathematics of Finance  
MAN771 Computational Mathematics 4  
MAN774 Perturbation Methods  
MAN775 Statistical Modelling of Financial Processes  
MAN777 Mathematics of Fluid Flow  
MAN778 Applications of Discrete Mathematics

Up to 12 credit points from the following lists can be included in the 60 credit points of electives:

MAB522 Computational Mathematics 3  
MAB524 Statistical Inference  
MAB613 Partial Differential Equations  
MAB672 Advanced Mathematical Modelling  
MAN536 Time Series Analysis

Up to two units of a quantitative nature from another Faculty or School may be included with the permission of the Mathematics

Coordinator. The unit(s) must be of honours level and relevant to the proposed program. Examples of suitable units are:

Ecologist, Programmer, Quantitative Analyst, Statistician, Virologist.

EFN505 Financial Risk Management

PCB706 Quantum Mechanics

\* The Course Coordinator may approve a student taking 24 credit points of elective units (together with MAN787-1 and MAN787-2) in Semester 1 and 36 credit points of elective units (together with MAN787-3) in Semester 2.

NOTE: Students wishing to apply for entry to BAppSc(Hons) should consult with the contact person for the relevant science discipline before applying (see contact details link above).

## Course structure - Major in Physics

### Year 1, Semester 1

PCB700-1 Research Project

PCB700-2 Research Project

PCB706 Quantum Mechanics

Elective

NOTE: An alternative to PCB706 Quantum Mechanics may be permitted

### Year 1, Semester 2

PCB700-3 Research Project

PCB700-4 Research Project

PCB700-5 Research Project

Elective

NOTE: Students wishing to apply for entry into BAppSc(Hons) should consult with the contact person for the relevant science discipline before applying (see contact details link above).

### Elective List (Physics)

PCB708 Advanced Topics in Physics

PCN716 Advanced Topics in Physics 2

PQB660 Astrophysics 2

PQB661 Lasers and Photonics

NOTE: PCB708 and PCN716 typically comprise two components chosen from atmospheric aerosol physics, classical mechanics, non-linear optics, quantum electrodynamics, advanced general relativity or aspects of units from the Masters in Medical Physics course.

## Potential Careers:

Actuary, Analytical Chemist, Astrophysicist, Biochemist, Biologist, Biotechnologist, Chemist, Chemist Industrial, Coastal Scientist, Conservation Biologist, Database Manager, Ecologist, Environmental Scientist, Forensic Scientist, Geologist, Geophysicist, Geoscientist, Health Physicist, Hydrogeologist, Immunologist, Industrial Chemist, Laboratory Technician (Chemistry), Marine Scientist, Mathematician, Medical Biotechnologist, Medical Physicist, Microbiologist, Molecular Biologist, Natural Resource Scientist, Physicist, Plant Biotechnologist, Population

## Graduate Diploma in Applied Science (SC71)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 020314E

**Course duration (full-time):** 2 semesters (1 year)

**Course duration (part-time):** 4 semesters (2 years)

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,000 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Associate Professor Terry Walsh

**Discipline coordinator:** Dr Geoffrey Will (Chemistry Major); Dr Mark O'Brien (Life Science Major); Dr Troy Farrell (Mathematics Major); Associate Professor Peter Mather (Natural Resource Sciences Major); Dr Andrew Fielding (Physics Major)

**Campus:** Gardens Point

### Overview

This course offers students currently employed in industry the opportunity to upgrade their professional qualifications in one of our science disciplines. The course is a one-year-full-time (or two-year-part-time) postgraduate qualification by coursework, or coursework and a minor research project.

### Career Outcomes

Graduates find employment in hospitals, health departments, mining companies, tertiary institutions and medical instrumentation companies, in careers such as medical physicists or biomedical engineers.

### Entry requirements

A bachelor degree in science or equivalent qualification or other evidence of qualifications that satisfactorily demonstrate that the applicant possesses the capacity to pursue the course of study.

### Course Design

This coursework program allows students to complete a minor research project of up to 36 credit points in some disciplines (as approved by the Academic Board). The assessed coursework may include advanced lectures, seminars, reading units or independent study designed to focus on information retrieval skills. Coursework units are chosen from those in the Master of Applied Science course and may contain units from other postgraduate courses, the Bachelor of Applied Science (Honours) program or advanced undergraduate programs.

### Further Information

For further information about this course, please contact:

### Science and Technology Coordinator

Associate Professor Peter Mather

Phone: +61 7 3138 1737

Email: p.mather@qut.edu.au

### Discipline Coordinators

#### Chemistry

Dr Geoffrey Will

Phone: +61 7 3138 2297

Email: g.will@qut.edu.au

#### Life Science

Dr Mark O'Brien

Phone: +61 7 3138 2568

Email: m.obrien@qut.edu.au

#### Mathematics

Dr Troy Farrell

Phone: +61 7 3138 2364

Email: t.farrell@qut.edu.au

#### Natural Resource Sciences

Associate Professor Peter Mather

Phone: +61 7 3138 1737

Email: p.mather@qut.edu.au

#### Physics

Dr Andrew Fielding

Phone: +61 7 3138 5325

Email: a.fielding@qut.edu.au

### Course structure - Chemistry Strand

PCN701	Topics in Advanced Chemistry 1
PCN705-1	Research Methodology
PCN705-2	Research Methodology
PCN710	Chemical Instrumentation
PCN720	Chemometrics
PCN730	Advanced Physical Methods in Chemistry
PCN740	Laboratory Techniques for Preparative Chemistry
PCN801	Topics in Advanced Chemistry 2

### Course structure - Ecology, Environmental Science & Geoscience Strands

NRN100	Readings in Natural Resource Sciences 1
NRN101	Readings in Natural Resource Sciences 2
NRN104	Advanced Topics in Natural Resource Sciences 1
NRN105	Advanced Topics in Natural Resource Sciences 2
And units approved by the Strand Coordinator	

### Course structure - Life Science Strand

LSN011	Research Seminars in Life Science 1
LSN013	Readings in Life Science 3
LSN023	Research Seminars in Life Science 3



**Course structure - Mathematics Strand**

Units selected from other programs, such as MA75 Graduate Diploma in Mathematical Science and MA85 Master of Mathematical Science, offered by the School of Mathematical Sciences and approved by the Mathematics coordinator.

**Course structure - Physics Strand**

PCN715    Advanced Topics in Physics 1

PCN716    Advanced Topics in Physics 2

And/or alternative unit(s) approved by the Physics Coordinator

**Potential Careers:**

Actuary, Analytical Chemist, Astrophysicist, Biochemist, Biologist, Biotechnologist, Chemist, Chemist Industrial, Coastal Scientist, Conservation Biologist, Database Manager, Ecologist, Environmental Scientist, Forensic Scientist, Geologist, Geophysicist, Geoscientist, Health Physicist, Hydrogeologist, Immunologist, Industrial Chemist, Laboratory Technician (Chemistry), Marine Scientist, Mathematician, Medical Biotechnologist, Medical Physicist, Microbiologist, Molecular Biologist, Natural Resource Scientist, Physicist, Plant Biotechnologist, Population Ecologist, Programmer, Quantitative Analyst, Statistician, Virologist.

## Master of Applied Science (Research) (SC80)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 007897G

**Course duration (full-time):** Standard duration is 2 years

**Course duration (part-time):** Standard duration is 4 years

**Domestic fees (indicative):** Aust citizens or PRs will be awarded an RTS/RTA place or a QUT sponsorship for tuition fees. If you exceed the max time, you will be charged - 2011: \$9,375 per semester (indicative)

**International Fees (indicative):** 2011: \$12,125 (indicative) per semester

**Domestic Entry:** At any time

**International Entry:** At any time

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Associate Professor Terry Walsh

**Discipline coordinator:** Aspro Louise Hafner (Cell & Molecular Biosciences); Aspro Peter Fredericks (Chemistry); Professor Vo Anh (Mathematics); Dr Fiona Harden (Medical Radiation Sciences); Aspro Lisa Chopin (Medical Science); Aspro Tony Clarke (Biogeosciences); Dr Andrew Fielding (Physics); Dr Trudi Collet (Pharmacy)

**Campus:** Gardens Point

### Entry Requirement

- A Bachelor of Applied Science, equivalent qualification or other evidence of qualifications that demonstrate that the applicant possesses the capacity to pursue the course of study.

In addition to assessing qualifications, the Faculty must also be satisfied that adequate supervision and resources are available to support the applicant's proposed research.

### Course Design

This degree consists of coursework that can comprise up to one-third of the course and research, which must be at least two-thirds of the course. The assessed coursework may be in the form of advanced lectures, seminars, reading courses or independent study designed to focus on information retrieval skills. The research component is a program of supervised research and investigation at a level of scientific competence significantly higher than that expected from an undergraduate degree and, typically, a masters thesis does not need to be as substantial as a Doctor of Philosophy thesis.

Students undertake a program of research and investigation on a topic approved by the Academic Board. All projects should be sponsored either by outside agencies such as industry, government authorities, or professional organisations, or by the University itself.

Students entering the course with an honours degree or equivalent substantial relevant work experience normally gain exemptions to a maximum of 96 credit points at the

discretion of the Academic Board on the recommendation of the Head of School.

Students entering the course with a graduate diploma may gain exemption to a maximum of 96 credit points at the discretion of the Academic Board on the recommendation of the Head of School.

A full-time candidate who does not hold an honours degree appropriate to the course of study will normally be required to complete both course and research work, including submission of the thesis for examination during a period of registration of 24 months. The corresponding period in the case of a part-time candidate shall be 48 months. In special cases the Academic Board may approve a shorter period.

A holder of an honours degree or its equivalent appropriate to the course of study may submit the thesis for examination after not less than 12 months of registration if a full-time student, or 24 months if a part-time student. In special cases the Academic Board may approve a shorter period.

### Overview

The objectives of this course are to:

- provide postgraduate educational opportunities in specialised fields of applied science by means of a program that involves either an original contribution to knowledge or an original application of existing knowledge
- provide education in research methods
- enable graduates employed in industry to undertake further education by a combination of coursework, research and thesis
- expand the involvement of students employed in industrial organisations and external agencies in undertaking relatively short-duration applied research or investigation.

Students can undertake an approved project in any area of interest supported by a research area or school within the Faculty of Science. Please note that these areas of research specialisation are only a guide. Staff are happy to discuss study choices directly with students.

### Further Information

For further information about this course, please contact:

Terry Walsh

Phone: +61 7 3138 2782

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### Course structure - Chemistry

PCN701 Topics in Advanced Chemistry 1

PCN705-1 Research Methodology

PCN705-2	Research Methodology
	Select one of the following Elective Units:
PCN710	Chemical Instrumentation
PCN720	Chemometrics
PCN730	Advanced Physical Methods in Chemistry
PCN740	Laboratory Techniques for Preparative Chemistry
PCN801	Topics in Advanced Chemistry 2

must constitute at least 96 credit points. The units below have been devised to represent the EFTSU (Effective Full-time Student Unit) and attendance type of graduate research students.

At the end of each semester a grade of T - Assessment Continues will be awarded in any IFNXXX units provided satisfactory progress is being maintained. A final grade (S - Satisfactory or U - Unsatisfactory) will be awarded once the thesis has been examined according to the degree rules.

#### Course structure - Biogeosciences

	Essential units:
NRN100	Readings in Natural Resource Sciences 1
NRN102	Confirmation of Candidature Seminar
NRN103	Final Seminar
	Select up to one of the following units if required:
NRN101	Readings in Natural Resource Sciences 2
NRN104	Advanced Topics in Natural Resource Sciences 1
NRN105	Advanced Topics in Natural Resource Sciences 2

#### Course structure - Cell & Molecular Science, Medical Sciences and Pharmacy

LSN011	Research Seminars in Life Science 1
LSN013	Readings in Life Science 3
LSN023	Research Seminars in Life Science 3

#### Course structure - Mathematics

Selections from other School programs, such as MA75 Graduate Diploma in Mathematical Science and MA85 Master of Mathematical Science, to a maximum of 60 credit points

#### Course structure - Medical Radiation Sciences

PCN718	Advanced Topics in Medical Radiation Sciences 1
PCN719	Advanced Topics in Medical Radiation Sciences 2
	and alternative unit(s) approved by the Medical Radiation Sciences coordinator

#### Course structure - Physics

PCN715	Advanced Topics in Physics 1
PCN716	Advanced Topics in Physics 2
	and/or alternative unit(s) approved by the Physics coordinator

#### Research Work

The Research Work component of the degree

#### Disciplines

1.	Mathematical Sciences
IFT611	Thesis
2.	Chemical Sciences
IFT612	Thesis
3.	Earth Sciences
IFT613	Thesis
4.	Biological Sciences, Agriculture, Horticulture & Viticulture, Forestry Studies, Fisheries Studies, Environmental Studies, Other Agriculture, Environmental & Related Studies
IFT614	Thesis
5.	Physics & Astronomy, Other Natural & Physical Sciences
IFT615	Thesis
6.	Computer Science
IFT621	Thesis
7.	Information Systems & Other Information Technology
IFT622	Thesis
8.	Electrical & Electronic Engineering
IFT635	Thesis
9.	Environmental Engineering, Biomedical Engineering
IFT637	Thesis
10.	Medical Studies, Pharmacy, Dentistry
IFT661	Thesis
11.	Political Science & Policy Studies; Human Welfare Studies & Services; Behavioural Science; Librarianship, Information Management & Curatorial Studies; Language & Literature; Philosophy & Religious Studies; Sport & Recreation; Other Society & Culture
IFT696	Thesis

#### Potential Careers:

Actuary, Analytical Chemist, Astrophysicist, Biochemist, Biologist, Biotechnologist, Chemist, Chemist Industrial, Coastal Scientist, Conservation Biologist, Database Manager, Ecologist, Environmental Scientist, Forensic Scientist, Geologist, Geophysicist, Geoscientist, Health Physicist, Hydrogeologist, Immunologist, Industrial Chemist, Laboratory Technician (Chemistry), Marine Scientist, Mathematician, Medical Biotechnologist, Medical Physicist, Microbiologist, Molecular Biologist, Natural Resource Scientist, Physicist, Plant Biotechnologist, Population

Ecologist, Programmer, Quantitative Analyst, Statistician,  
Virologist.

## Bachelor of Medical Imaging Science (ST30)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 073448G

**Course duration (full-time):** 3 Years

**Domestic fees (indicative):** 2011: CSP \$3,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 418182

**Past rank cut-off:** 96

**Past OP cut-off:** 3

**Assumed knowledge:** English (4 SA), Maths B (4 SA) and Physics (4 SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 288

**Standard credit points per full-time semester:** 48

**Course coordinator:** Debbie Starkey

**Discipline coordinator:** Debbie Starkey

**Campus:** Gardens Point

### Overview

QUT offers a professionally accredited Medical Imaging Technology degree. Employment prospects can be expected to be good as QUT works closely with the health industry to try to ensure that the number of graduates is in line with industry demand. In recent years, over 95 per cent of graduates have been employed within four months of graduation.

This course is designed in consultation with clinical staff from radiology departments, so you'll gain advanced knowledge of new diagnostic techniques and equipment used in the workplace. QUT's well equipped X-ray laboratories allow you to graduate with experience using equipment and techniques similar to those used in industry. Clinical placements in hospitals and private practices provide an opportunity to use your skills in a real workplace

### Career Outcomes

After graduating from the Bachelor of Medical Imaging Science, you may be employed as a medical imaging technologist or diagnostic radiographer. As a radiographer you will play a key role within the health care industry by providing referring medical practitioners with additional diagnostic information to assist in patient management and treatment. You may become a team member in a radiology department in a hospital, private radiology practice or health department, or you may be employed in medical equipment sales.

### Professional Membership

On graduation, students will be eligible for provisional accreditation by the Australian Institute of Radiography. Full membership requires the completion of an additional professional development year of clinical experience.

**English Language Skills** (Applicable to health practitioners applying for registration)

All applicants must be able to demonstrate English language skills at IELTS academic level 7 or equivalent. Test results from examinations will generally need to be obtained within two years prior to applying for registration.

### Other Course Requirements

You are required to undertake clinical experience in hospital departments and private practices during the course and, as a result, will have direct patient contact during the clinical placement, and may be exposed to blood and body fluids of patients. You must be vaccinated for Hepatitis B and must provide a post-vaccination pathological report or similar certification showing proof of immunity prior to undertaking the first clinical placement.

Cardiopulmonary resuscitation (CPR) certification is also required to undertake clinical placements. In addition, you must satisfy criteria related to health status. You should declare height, physical disabilities, treatment of nervous condition, any drug/alcohol disorder, and a current immunisation status (specifically Hepatitis B) as part of the online enrolment process.

A current Blue Card authorised with QUT may be required prior to commencing the clinical placement components of this course. For more information visit Blue Card, and ensure that you allow adequate time for processing your application and issuing of the card in order to avoid clinical experience delays.

### OP Guarantee

The OP Guarantee does not apply to this program.

### 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.

### Further Information

For Further information on the course, please contact the following:

Course Coordinator

Debbie Starkey

Phone: +61 7 3138 2596

Email: [d.starkey@qut.edu.au](mailto:d.starkey@qut.edu.au)

### Course structure - 2011

#### Year 1, Semester 1

LSB145	Anatomy 1
PCB007	Patient Care in Professional Practice
PCB178	Principles of Medical Radiations
PCB272	Radiation Physics



**Year 1, Semester 2**

LSB245	Anatomy 2 and Introductory Pathology
PCB276	General Radiography 1
PCB277	Radiographic Practice
PCB675	Radiation Safety and Biology

**Year 2, Semester 1**

LSB321	Systematic Pathology
LSB345	Regional & Imaging Anatomy 1
PCB375-1	Radiographic Equipment
PCB377	General Radiography 2
PCB379	Clinical Radiography 1

**Year 2, Semester 2**

LSB445	Regional and Imaging Anatomy 2
PCB375-2	Radiographic Equipment
PCB476	Special Procedures
PCB477	Complementary Imaging Techniques
PCB479	Clinical Radiography 2

**Year 3, Semester 1**

PCB567	Advanced Radiographic Technique 1
PCB581-1	Clinical Radiography 3
PCB593	Digital Image Processing
PCB672-1	Project
PCB681	Computed Tomography Imaging

**Year 3, Semester 2**

PCB581-2	Clinical Radiography 3
PCB667	Advanced Radiographic Technique 2
PCB672-2	Project
PCB682	Magnetic Resonance Imaging

**Potential Careers:**

Medical Equipment Sales, Medical Imaging Technologist, Radiographer.

## Bachelor of Radiation Therapy (ST31)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 073449G

**Course duration (full-time):** 3 Years

**Domestic fees (indicative):** 2011: CSP \$3,375 (indicative) per semester

**International Fees (indicative):** 2011: \$11,000 (indicative) per semester

**Domestic Entry:** February: Fixed Closing Date - 26 November 2010

**International Entry:** February: Students must have a background in Radiation Therapy

**QTAC code:** 418192

**Past rank cut-off:** 92 plus successful questionnaire. Please refer to Additional Entry Requirements.

**Past OP cut-off:** 5 plus successful questionnaire. Please refer to Additional Entry Requirements.

**Assumed knowledge:** English (4, SA), Maths B (4, SA) and Physics (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 288

**Standard credit points per full-time semester:** 48

**Course coordinator:** Pete Bridge

**Campus:** Gardens Point

### Overview

QUT is currently the only university in Queensland to offer a radiation therapy undergraduate qualification. This course leads to employment as a radiation therapist, assisting cancer patients at the most difficult time in their lives.

### Why choose this course

QUT works closely with the health sector in an effort to ensure that the number of graduates is in line with demand. In recent years, more than 95 per cent of graduates gained full-time employment within four months of graduation.

This course is designed in consultation with clinical staff from radiation oncology departments, so you will gain advanced knowledge of new treatment techniques and equipment used in the workplace. QUT's well equipped laboratories allow you to graduate with experience using treatment planning equipment and techniques similar to those used in industry. Close links with local oncology departments allow you to complete practical work and clinical placements using specialised, state-of-the-art radiotherapy equipment.

### Career Outcomes

As a radiation therapist in a radiotherapy department of a major hospital or private institution, you may become a member of a team treating cancer patients and be responsible for planning and delivering prescribed radiation doses.

### Professional Recognition

This course is provisionally accredited by the Australian Institute of Radiography and undergoing review during

2011.

**English Language Skills** (Applicable to health practitioners applying for registration)

All applicants must be able to demonstrate English language skills at IELTS academic level 7 or equivalent. Test results from examinations will generally need to be obtained within two years prior to applying for registration.

### Early Closing Date

Late QTAC applications and changes of preference for this program close **26 November 2010**.

### Additional Entry Requirements

Radiation Therapy applicants are required to lodge a questionnaire, available from [addentry.qut.edu.au](http://addentry.qut.edu.au), by no later than **26 November 2010** (questionnaire available late August). Late submissions will not be accepted.

### International Student Entry

International students may be offered a place in Radiation Therapy on condition they have met the Clinical Placement requirement. Please refer to Course Coordinator for further information.

### Other course requirements

You will be required to undertake clinical experience in hospital departments and private practices during the course and, as a result, will have direct patient contact during your placement and may be exposed to blood and body fluids of patients. You must be vaccinated for Hepatitis B and must provide a post-vaccination pathological report or similar certification showing proof of immunity, prior to undertaking the first clinical placement.

Cardiopulmonary resuscitation (CPR) certification is also required to undertake clinical placements. In addition, you should satisfy criteria related to health status, including declaration of height, physical disabilities, treatment of nervous condition, any drug/alcohol disorder and a current immunisation status (specifically Hepatitis B) as part of the online enrolment process.

**Blue Card:** A current blue card authorised with QUT may be required prior to commencing the clinical placement components of this course. For more information visit Blue Card, and ensure that you allow adequate time for processing your application and issuing of the card in order to avoid clinical experience delays.

### Your course

#### Year 1

You will develop a solid grounding in anatomy and medical physics along with introductory knowledge of patient health-care needs, professional communication techniques and ethical, legal and accountability issues. Introductory studies in medical radiation and radiotherapy techniques are complemented with practical sessions using equipment in clinical departments. You will learn a range of skills including patient data acquisition, radiation dosimetry and the basic techniques of treatment delivery including beam direction and beam defining

devices.

### **Year 2**

You will progress to further studies in anatomy and pathology as well as the planning of complex techniques like photon therapy, electron therapy, and megavoltage therapy, including techniques for specific sites. The use of computer software to assist with the optimisation of isodose distributions will be covered along with issues related to the interaction of radiation with tissue, dose measurement and related quality assurance procedures. You will undertake practical exercises in hospital clinical departments along with your first clinical placement period, allowing you to gain real experience in a working environment.

### **Year 3**

You will continue to develop your skills through clinical placements in hospitals and practical classes using equipment in clinical settings. You will cover the techniques of medical imaging used in the detection of cancer, along with future directions of three dimensional treatment planning. You will progress to more complex and specialised techniques for child patients and patients with communicable disease, along with the latest developments and techniques complementary to the modern radiotherapy treatment of cancer. You will learn important information about the biological effects of ionising radiation and the philosophy and protocol in radiation protection and quality assurance.

### **Further Information**

For further information about this course, please contact:

### **Course Coordinator**

Mr Pete Bridge

Phone: +61 7 3138 2273

Email: [pete.bridge@qut.edu.au](mailto:pete.bridge@qut.edu.au)

### **Deferment**

QUT's deferment policy does not apply to this course.

### **Course structure - 2011**

#### **Year 1, Semester 1**

LSB145	Anatomy 1
PCB007	Patient Care in Professional Practice
PCB178	Principles of Medical Radiations
PCB272	Radiation Physics

#### **Year 1, Semester 2**

LSB245	Anatomy 2 and Introductory Pathology
PCB286	Treatment Planning 1
PCB287	Radiation Therapy 1
PCB675	Radiation Safety and Biology

#### **Year 2, Semester 1**

LSB321	Systematic Pathology
LSB345	Regional & Imaging Anatomy 1

PCB389	Clinical Radiotherapy 1
PCB396	Treatment Planning 2
PCB397-1	Radiation Therapy 2

#### **Year 2, Semester 2**

LSB445	Regional and Imaging Anatomy 2
PCB397-2	Radiation Therapy 2
PCB489	Clinical Radiotherapy 2
PCB495	Treatment Planning 3
PCB496	Radiotherapy Equipment

#### **Year 3, Semester 1**

PCB587	Radiation Therapy 3
PCB591-1	Clinical Radiotherapy 3
PCB593	Digital Image Processing
PCB595	Treatment Planning 4
PCB672-1	Project

#### **Year 3, Semester 2**

PCB591-2	Clinical Radiotherapy 3
PCB672-2	Project
PCB687	Specialised Radiotherapy Technique
PCB695	Advanced Treatment Planning Topics

### **Potential Careers:**

Radiation Therapist.

## Bachelor of Technology Innovation (ST50)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 070694G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February

**QTAC code:** 418311

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA), Chemistry (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 96

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Overview

The Bachelor of Technology Innovation is designed to train the next generation of techno-entrepreneurs to translate research outcomes in science and technology into business opportunities. The four year coursework plus honours degree focuses on the business of innovation where you will learn the skills required to bring complex emerging technologies to the global marketplace.

While research innovation is critical to the future economy of Australia, it is the commercialisation of innovations that serves to build and strengthen local high-technology industries. Australia already produces many competent scientists but has a poor history of capitalising on research outcomes. You can join an elite group of skilled professionals driving innovation commercialisation in the science and technology sector in Australia or into the international market.

The Bachelor of Technology Innovation covers the innovation contexts of science and information technology, within your primary study area of choice. Choose from:

- biochemistry
- biomedical science
- biotechnology
- chemistry
- digital media
- ecology
- environmental science
- forensic science
- games technology
- geoscience
- information technology
- microbiology
- physics

### Why Choose this Course

If you like to work in a dynamic world of translating discovery and creativity into commercial products, meeting people, and working in a high-powered team environment to build money-making enterprises, then this course is for you. The Bachelor of Technology Innovation will allow a rapid entry into the high-flying world of commercialisation and technology transfer. This new degree builds upon the successful Bachelor of Biotechnology Innovation which has seen graduates realise outstanding job outcomes, often successfully competing against graduates with PhDs and MBAs.

### Career Outcomes

As a graduate of the Bachelor of Technology Innovation you can choose to be a business-savvy scientist, operate in the world of commercialisation and technology transfer, or start up a business enterprise to bring your own products to market. Graduates of the predecessor degree have taken up key positions in the biotechnology sector as investment analysts and advisors, business development associates, commercialisation officers, government advisers and scientists working on commercially oriented products. Some graduates have even established their own companies.

### Professional Recognition

On graduation, you will be eligible to join professional organisations relevant to your disciplinary specialisation, the Association of Professional Engineers, Scientists and Managers, Australia and the Australian Institute of Management.

### Your Course

#### Year 1

You will be able to choose subjects from across a range of science and technology areas to help you define your choice of disciplinary major. The introductory core studies will provide you with a solid foundation in your chosen disciplinary skills and build the basis for future studies.

#### Year 2

You will be introduced to advanced theoretical concepts and practical skills that serve to build your expertise in the science and technology disciplines. A thorough understanding of science and technology theory and practice is necessary to understand, evaluate and communicate aspects of innovation to the business world.

#### Year 3

In third year, you will complete your science and technology disciplinary advanced studies and take basic and advanced business units that encompass the business of innovation, intellectual property law and professional skills development. Through the action learning framework of the Student Enterprise Scheme, professional skills development will concentrate on communication and team-building skills. These exercises will help prepare you for industry-based consultancy style projects and extra-curricular networking events and an industry career.

#### Year 4

You will undertake integrative business units that develop the entrepreneurial mindset needed for a career in innovation commercialisation. You will further develop your professional skills through networking events. Student teams will source an industry-based consultancy-style project that will serve to provide real world experience and ready you for your future career.

**Further Information**

For further information about this course, please contact:

***Course Coordinator***

Associate Professor Chris Collet

Phone: +61 7 3138 5173

Email: [c.collet@qut.edu.au](mailto:c.collet@qut.edu.au)

**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.



## Bachelor of Technology Innovation (Biochemistry) (ST50)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 070694G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418311

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA), Chemistry (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 96

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Overview

Biochemistry is the study of the chemical processes that occur in living organisms including the chemical structure, function and properties and energy flows. Biochemistry underpins much of the life sciences industry.

The Bachelor of Technology Innovation is designed to train the next generation of techno-entrepreneurs to translate research outcomes in science and technology into business opportunities. The four year coursework plus honours degree focuses on the business of innovation where you will learn the skills required to bring complex emerging technologies to the global marketplace.

While research innovation is critical to the future economy of Australia, it is the commercialisation of innovations that serves to build and strengthen local high-technology industries. Australia already produces many competent scientists but has a poor history of capitalising on research outcomes. You can join an elite group of skilled professionals driving innovation commercialisation in the science and technology sector in Australia or into the international market.

### Why Choose This Course

If you like to work in a dynamic world of translating discovery and creativity into commercial products, meeting people, and working in a high-powered team environment to build money-making enterprises, then this course is for you. The Bachelor of Technology Innovation will allow a rapid entry into the high-flying world of commercialisation and technology transfer. This new degree builds upon the successful Bachelor of Biotechnology Innovation which has seen graduates realise outstanding job outcomes, often successfully competing against graduates with PhDs and

MBAs.

### Career Outcomes

As a graduate of the Bachelor of Technology Innovation you can choose to be a business-savvy scientist, operate in the world of commercialisation and technology transfer, or start up a business enterprise to bring your own products to market. Graduates of the predecessor degree have taken up key positions in the biotechnology sector as investment analysts and advisors, business development associates, commercialisation officers, government advisers and scientists working on commercially oriented products. Some graduates have even established their own companies.

### Professional Recognition

Graduates are eligible for membership of the Australian Society for Biochemistry and Molecular Biology (ASBMB), and in some cases the Australasian Association of Clinical Biochemists (AACB).

### Your Course

#### Year 1

You will be able to choose subjects from across a range of science and technology areas to help you define your choice of disciplinary major. The introductory core studies will provide you with a solid foundation in your chosen disciplinary skills and build the basis for future studies.

#### Year 2

You will be introduced to advanced theoretical concepts and practical skills that serve to build your expertise in the science and technology disciplines. A thorough understanding of science and technology theory and practice is necessary to understand, evaluate and communicate aspects of innovation to the business world.

#### Year 3

In third year, you will complete your science and technology disciplinary advanced studies and take basic and advanced business units that encompass the business of innovation, intellectual property law and professional skills development. Through the action learning framework of the Student Enterprise Scheme, professional skills development will concentrate on communication and team-building skills. These exercises will help prepare you for industry-based consultancy style projects and extra-curricular networking events and an industry career.

#### Year 4

You will undertake integrative business units that develop the entrepreneurial mindset needed for a career in innovation commercialisation. You will further develop your professional skills through networking events. Student teams will source an industry-based consultancy-style project that will serve to provide real world experience and ready you for your future career.

### Biochemistry Major Course Structure

#### Year 1, Semester 1

SCB110 Science Concepts and Global Systems

# FACULTY OF SCIENCE AND TECHNOLOGY

SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Plus ONE of the following units:
MAB101	Statistical Data Analysis 1
MAB105	Preparatory Mathematics
MAB120	Algebra and Calculus
MAB121	Calculus and Differential Equations

**NOTE:**

1. Students without a Sound Achievement (4 semesters) in Maths B should enrol in MAB105.
2. Students with a Sound Achievement in Maths B and NOT wishing to major in Mathematics or Physics should enrol in MAB101.
3. Students with a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB121.
4. Students without a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB120.

## Year 1, Semester 2

SCB120	Plant and Animal Physiology
SCB121	Chemistry 2
SCB122	Cell and Molecular Biology
SCB123	Physical Science Applications

## Year 2, Semester 1

LQB381	Biochemistry: Structure and Function
LQB383	Molecular and Cellular Regulation
	Plus TWO units from the relevant options List which may include one unit from outside of the Faculty *

## Year 2, Semester 2

LQB481	Biochemical Pathways and Metabolism
LQB483	Molecular Biology Techniques
	Plus TWO units from the relevant options List which may include one unit from outside of the Faculty#

## Year 3, Semester 1

BSB115	Management
LQB581	Functional Biochemistry
LQB582	Biomedical Research Technologies
STB551	Engaging with the Innovation Industry

## Year 3, Semester 2

BSB126	Marketing
LQB681	Biochemical Research Skills
LQB682	Protein Biochemistry and Bioengineering
MGB223	Entrepreneurship and Innovation

## Year 4, Semester 1

AMB240	Marketing Planning and Management
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LWS007	Introduction To Intellectual Property Law
MGB324	Managing Business Growth
STB709-1	Innovation and Commercialisation Project

## Year 4, Semester 2

BSB311	Innovation Commercialisation Strategies
MGB225	Intercultural Communication and Negotiation Skills
STB709-2	Innovation and Commercialisation Project
STB709-3	Innovation and Commercialisation Project

## \* Recommended Year 2 Semester 1 Units

LQB386	Microbial Structure and Function
LQB388	Medical Physiology 1

## # Recommended Year 2 Semester 2 Units

Any TWO units listed below provided prerequisites are met:

LQB484	Introduction to Genomics and Bioinformatics
LQB486	Clinical Microbiology 1
LQB488	Medical Physiology 2
LQB489	Plant Physiology and Cell Biology

## Potential Careers:

Biochemist.

## Bachelor of Technology Innovation (Biomedical Science) (ST50)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 070694G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418311

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA), Chemistry (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 96

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Overview

Biomedical science is the study of the medical and clinically oriented biological sciences.

The Bachelor of Technology Innovation is designed to train the next generation of techno-entrepreneurs to translate research outcomes in science and technology into business opportunities. The four year coursework plus honours degree focuses on the business of innovation where you will learn the skills required to bring complex emerging technologies to the global marketplace.

While research innovation is critical to the future economy of Australia, it is the commercialisation of innovations that serves to build and strengthen local high-technology industries. Australia already produces many competent scientists but has a poor history of capitalising on research outcomes. You can join an elite group of skilled professionals driving innovation commercialisation in the science and technology sector in Australia or into the international market.

### Why Choose This Course

If you like to work in a dynamic world of translating discovery and creativity into commercial products, meeting people, and working in a high-powered team environment to build money-making enterprises, then this course is for you. The Bachelor of Technology Innovation will allow a rapid entry into the high-flying world of commercialisation and technology transfer. This new degree builds upon the successful Bachelor of Biotechnology Innovation which has seen graduates realise outstanding job outcomes, often successfully competing against graduates with PhDs and MBAs.

### Career Outcomes

As a graduate of the Bachelor of Technology Innovation you can choose to be a business-savvy scientist, operate in the world of commercialisation and technology transfer, or start up a business enterprise to bring your own products to market. Graduates of the predecessor degree have taken up key positions in the biotechnology sector as investment analysts and advisors, business development associates, commercialisation officers, government advisers and scientists working on commercially oriented products. Some graduates have even established their own companies.

### Professional Recognition

On graduation, you will be eligible to join professional organisations relevant to your disciplinary specialisation, the Association of Professional Engineers, Scientists and Managers, Australia and the Australian Institute of Management.

### Your Course

#### Year 1

You will be able to choose subjects from across a range of science and technology areas to help you define your choice of disciplinary major. The introductory core studies will provide you with a solid foundation in your chosen disciplinary skills and build the basis for future studies.

#### Year 2

You will be introduced to advanced theoretical concepts and practical skills that serve to build your expertise in the science and technology disciplines. A thorough understanding of science and technology theory and practice is necessary to understand, evaluate and communicate aspects of innovation to the business world.

#### Year 3

In third year, you will complete your science and technology disciplinary advanced studies and take basic and advanced business units that encompass the business of innovation, intellectual property law and professional skills development. Through the action learning framework of the Student Enterprise Scheme, professional skills development will concentrate on communication and team-building skills. These exercises will help prepare you for industry-based consultancy style projects and extra-curricular networking events and an industry career.

#### Year 4

You will undertake integrative business units that develop the entrepreneurial mindset needed for a career in innovation commercialisation. You will further develop your professional skills through networking events. Student teams will source an industry-based consultancy-style project that will serve to provide real world experience and ready you for your future career.

### Biomedical Science Major Course Structure

#### Year 1, Semester 1

MAB141 Mathematics and Statistics for Medical Science

## FACULTY OF SCIENCE AND TECHNOLOGY

SCB110	Science Concepts and Global Systems	MGB225	Intercultural Communication and Negotiation Skills
SCB111	Chemistry 1	STB709-2	Innovation and Commercialisation Project
SCB112	Cellular Basis of Life	STB709-3	Innovation and Commercialisation Project
<b>Year 1, Semester 2</b>			
LSB255	Human Anatomy		
PCB150	Physics 1H		
SCB121	Chemistry 2		
SCB122	Cell and Molecular Biology		
<b>Year 2, Semester 1</b>			
LQB383	Molecular and Cellular Regulation		
LQB386	Microbial Structure and Function		
LQB388	Medical Physiology 1		
LSB325	Biochemistry		
<b>Year 2, Semester 2</b>			
LQB483	Molecular Biology Techniques		
LQB484	Introduction to Genomics and Bioinformatics		
LQB486	Clinical Microbiology 1		
LSB425	Quantitative Medical Science		
<b>Year 3, Semester 1</b>			
BSB115	Management		
STB551	Engaging with the Innovation Industry Plus any TWO of the following five units		
LQB583	Genetic Research Technology		
LQB584	Medical Cell Biology		
LQB586	Clinical Microbiology 2		
LSB525	Clinical Biochemistry 1 Elective		
<b>Year 3, Semester 2</b>			
BSB126	Marketing		
MGB223	Entrepreneurship and Innovation Plus any TWO units of the following five units provided the prerequisites are met:		
LQB488	Medical Physiology 2		
LQB684	Medical Biotechnology		
LSB625	Clinical Biochemistry 2		
LSB658	Clinical Physiology Elective		
<b>Year 4, Semester 1</b>			
AMB240	Marketing Planning and Management		
LWS007	Introduction To Intellectual Property Law		
MGB324	Managing Business Growth		
STB709-1	Innovation and Commercialisation Project		
<b>Year 4, Semester 2</b>			
BSB311	Innovation Commercialisation Strategies		



## Bachelor of Technology Innovation (Biotechnology) (ST50)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 070694G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418311

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA), Chemistry (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 96

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Overview

Biotechnology is the application of cell and molecular biology and biochemical principles to create a new generation of products and processes for the benefit of society.

The Bachelor of Technology Innovation is designed to train the next generation of techno-entrepreneurs to translate research outcomes in science and technology into business opportunities. The four year coursework plus honours degree focuses on the business of innovation where you will learn the skills required to bring complex emerging technologies to the global marketplace.

While research innovation is critical to the future economy of Australia, it is the commercialisation of innovations that serves to build and strengthen local high-technology industries. Australia already produces many competent scientists but has a poor history of capitalising on research outcomes. You can join an elite group of skilled professionals driving innovation commercialisation in the science and technology sector in Australia or into the international market.

### Why Choose This Course

If you like to work in a dynamic world of translating discovery and creativity into commercial products, meeting people, and working in a high-powered team environment to build money-making enterprises, then this course is for you. The Bachelor of Technology Innovation will allow a rapid entry into the high-flying world of commercialisation and technology transfer. This new degree builds upon the successful Bachelor of Biotechnology Innovation which has seen graduates realise outstanding job outcomes, often successfully competing against graduates with PhDs and

MBAs.

### Career Outcomes

As a graduate of the Bachelor of Technology Innovation you can choose to be a business-savvy scientist, operate in the world of commercialisation and technology transfer, or start up a business enterprise to bring your own products to market. Graduates of the predecessor degree have taken up key positions in the biotechnology sector as investment analysts and advisors, business development associates, commercialisation officers, government advisers and scientists working on commercially oriented products. Some graduates have even established their own companies.

### Professional Recognition

Graduates are eligible for membership of AusBiotech Ltd, Australian Society for Biochemistry and Molecular Biology (ASBMB) and, depending on unit selection, Australian Society for Medical Research (ASMR) and the Australian Society for Microbiology (ASM).

### Your Course

#### Year 1

You will be able to choose subjects from across a range of science and technology areas to help you define your choice of disciplinary major. The introductory core studies will provide you with a solid foundation in your chosen disciplinary skills and build the basis for future studies.

#### Year 2

You will be introduced to advanced theoretical concepts and practical skills that serve to build your expertise in the science and technology disciplines. A thorough understanding of science and technology theory and practice is necessary to understand, evaluate and communicate aspects of innovation to the business world.

#### Year 3

In third year, you will complete your science and technology disciplinary advanced studies and take basic and advanced business units that encompass the business of innovation, intellectual property law and professional skills development. Through the action learning framework of the Student Enterprise Scheme, professional skills development will concentrate on communication and team-building skills. These exercises will help prepare you for industry-based consultancy style projects and extra-curricular networking events and an industry career.

#### Year 4

You will undertake integrative business units that develop the entrepreneurial mindset needed for a career in innovation commercialisation. You will further develop your professional skills through networking events. Student teams will source an industry-based consultancy-style project that will serve to provide real world experience and ready you for your future career.

### Biotechnology Major Course Structure

#### Year 1 Semester 1

SCB110 Science Concepts and Global Systems



# FACULTY OF SCIENCE AND TECHNOLOGY

SCB111	Chemistry 1		provided prerequisites are met
SCB112	Cellular Basis of Life	LQB583	Genetic Research Technology
	Plus ONE of the following units	LQB584	Medical Cell Biology
MAB101	Statistical Data Analysis 1	LQB585	Plant Genetic Manipulation

MAB105 Preparatory Mathematics

MAB120 Algebra and Calculus

MAB121 Calculus and Differential Equations

NOTE: Students with a Sound Achievement in Maths B and NOT wishing to major in Mathematics or Physics should enrol in MAB101

Students without a Sound Achievement (4 semesters) in Maths B should enrol in MAB105

Students with a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB121

Students without a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB120

## Year 1 Semester 2

SCB120 Plant and Animal Physiology

SCB121 Chemistry 2

SCB122 Cell and Molecular Biology

SCB123 Physical Science Applications

## Year 2 Semester 1

LQB381 Biochemistry: Structure and Function

LQB383 Molecular and Cellular Regulation

Plus TWO units from the relevant options List which may include one unit from outside the Faculty

Relevant Options List for Year 2, Semester 1

LQB386 Microbial Structure and Function

LQB388 Medical Physiology 1

Elective

## Year 2 Semester 2

LQB483 Molecular Biology Techniques

LQB484 Introduction to Genomics and Bioinformatics

Plus TWO units from the relevant options List which may include one unit from outside the Faculty

Relevant Options List for Year 2, Semester 2

LQB481 Biochemical Pathways and Metabolism

LQB486 Clinical Microbiology 1

LQB488 Medical Physiology 2

LQB489 Plant Physiology and Cell Biology

Elective

## Year 3 Semester 1

BSB115 Management

STB551 Engaging with the Innovation Industry

Plus any TWO of the three units below

## Year 3 Semester 2

BSB126 Marketing

MGB223 Entrepreneurship and Innovation

Plus any TWO of the three units below provided prerequisites are met

LQB682 Protein Biochemistry and Bioengineering

LQB684 Medical Biotechnology

LQB685 Plant Microbe Interactions

## Year 4 Semester 1

AMB240 Marketing Planning and Management

LWS007 Introduction To Intellectual Property Law

MGB324 Managing Business Growth

STB709-1 Innovation and Commercialisation Project

## Year 4 Semester 2

BSB311 Innovation Commercialisation Strategies

MGB225 Intercultural Communication and Negotiation Skills

STB709-2 Innovation and Commercialisation Project

STB709-3 Innovation and Commercialisation Project

## Bachelor of Technology Innovation (Chemistry) (ST50)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 070694G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418311

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA), Chemistry (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 96

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Overview

Chemistry is the study of the structure, properties, synthesis and reactions of materials. Chemistry is one of the central sciences since its results are used in almost all areas of science including life sciences, the environment, geosciences, biology, and food science.

The Bachelor of Technology Innovation is designed to train the next generation of techno-entrepreneurs to translate research outcomes in science and technology into business opportunities. The four year coursework plus honours degree focuses on the business of innovation where you will learn the skills required to bring complex emerging technologies to the global marketplace.

While research innovation is critical to the future economy of Australia, it is the commercialisation of innovations that serves to build and strengthen local high-technology industries. Australia already produces many competent scientists but has a poor history of capitalising on research outcomes. You can join an elite group of skilled professionals driving innovation commercialisation in the science and technology sector in Australia or into the international market.

### Why Choose This Course

If you like to work in a dynamic world of translating discovery and creativity into commercial products, meeting people, and working in a high-powered team environment to build money-making enterprises, then this course is for you. The Bachelor of Technology Innovation will allow a rapid entry into the high-flying world of commercialisation and technology transfer. This new degree builds upon the successful Bachelor of Biotechnology Innovation which has seen graduates realise outstanding job outcomes, often

successfully competing against graduates with PhDs and MBAs.

### Career Outcomes

As a graduate of the Bachelor of Technology Innovation you can choose to be a business-savvy scientist, operate in the world of commercialisation and technology transfer, or start up a business enterprise to bring your own products to market. Graduates of the predecessor degree have taken up key positions in the biotechnology sector as investment analysts and advisors, business development associates, commercialisation officers, government advisers and scientists working on commercially oriented products. Some graduates have even established their own companies.

### Professional Recognition

On graduation, you will be eligible to join professional organisations relevant to your disciplinary specialisation, the Association of Professional Engineers, Scientists and Managers, Australia and the Australian Institute of Management.

### Your Course

#### Year 1

You will be able to choose subjects from across a range of science and technology areas to help you define your choice of disciplinary major. The introductory core studies will provide you with a solid foundation in your chosen disciplinary skills and build the basis for future studies.

#### Year 2

You will be introduced to advanced theoretical concepts and practical skills that serve to build your expertise in the science and technology disciplines. A thorough understanding of science and technology theory and practice is necessary to understand, evaluate and communicate aspects of innovation to the business world.

#### Year 3

In third year, you will complete your science and technology disciplinary advanced studies and take basic and advanced business units that encompass the business of innovation, intellectual property law and professional skills development. Through the action learning framework of the Student Enterprise Scheme, professional skills development will concentrate on communication and team-building skills. These exercises will help prepare you for industry-based consultancy style projects and extra-curricular networking events and an industry career.

#### Year 4

You will undertake integrative business units that develop the entrepreneurial mindset needed for a career in innovation commercialisation. You will further develop your professional skills through networking events. Student teams will source an industry-based consultancy-style project that will serve to provide real world experience and ready you for your future career.

### Chemistry Major Course Structure

#### Year 1 Semester 1

# FACULTY OF SCIENCE AND TECHNOLOGY

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Plus ONE of the following units
MAB101	Statistical Data Analysis 1
MAB105	Preparatory Mathematics
MAB120	Algebra and Calculus
MAB121	Calculus and Differential Equations
	NOTE: Students with a Sound Achievement in Maths B and NOT wishing to major in Mathematics or Physics should enrol in MAB101
	Students without a Sound Achievement (4 semesters) in Maths B should enrol in MAB105
	Students with a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB121
	Students without a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB120

## Year 1 Semester 2

SCB121	Chemistry 2
SCB123	Physical Science Applications
SCB131	Experimental Chemistry
	Plus ONE of the following two units
MAB120	Algebra and Calculus
SCB122	Cell and Molecular Biology

## Year 2 Semester 1

PQB312	Analytical Chemistry For Scientists and Technologists
PQB331	Structure and Bonding
	Plus TWO units from the relevant options List which may include one unit from outside the Faculty
	Relevant Options List for Year 2, Semester 1
MAB120	Algebra and Calculus
PQB313	Analytical Chemistry For Industry
	Elective
	MAB120 may be taken by students who undertook SCB122 in Year 1 Semester 2

## Year 2 Semester 2

PQB401	Reaction Kinetics, Thermodynamics and Mechanisms
PQB442	Chemical Spectroscopy
	Plus TWO units from the relevant options List which may include one unit from outside the Faculty
	Relevant Options List for Year 2, Semester 2
PQB404	Nanotechnology and Nanoscience
PQB423	Process Principles
	Elective

## Year 3 Semester 1

BSB115	Management
PQB502	Advanced Physical Chemistry
PQB531	Organic Mechanisms and Synthesis
STB551	Engaging with the Innovation Industry

## Year 3 Semester 2

BSB126	Marketing
MGB223	Entrepreneurship and Innovation
PQB631	Advanced Inorganic Chemistry
PQB642	Chemical Research

## Year 4 Semester 1

AMB240	Marketing Planning and Management
LWS007	Introduction To Intellectual Property Law
MGB324	Managing Business Growth
STB709-1	Innovation and Commercialisation Project

## Year 4 Semester 2

BSB311	Innovation Commercialisation Strategies
MGB225	Intercultural Communication and Negotiation Skills
STB709-2	Innovation and Commercialisation Project
STB709-3	Innovation and Commercialisation Project

## Bachelor of Technology Innovation (Digital Media) (ST50)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 070694G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418311

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA), Chemistry (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 96

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Overview

Digital media companies now dominate the multimedia and cinematic industries and the evolution of the industry is just beginning. Mixing graphics, video, animation and sound to produce stand alone digital entertainment or cinematic special effects is a growing global industry seeking new ideas and innovation.

The Bachelor of Technology Innovation is designed to train the next generation of techno-entrepreneurs to translate research outcomes in science and technology into business opportunities. The four year coursework plus honours degree focuses on the business of innovation where you will learn the skills required to bring complex emerging technologies to the global marketplace.

While research innovation is critical to the future economy of Australia, it is the commercialisation of innovations that serves to build and strengthen local high-technology industries. Australia already produces many competent scientists but has a poor history of capitalising on research outcomes. You can join an elite group of skilled professionals driving innovation commercialisation in the science and technology sector in Australia or into the international market.

### Why Choose This Course

If you like to work in a dynamic world of translating discovery and creativity into commercial products, meeting people, and working in a high-powered team environment to build money-making enterprises, then this course is for you. The Bachelor of Technology Innovation will allow a rapid entry into the high-flying world of commercialisation and technology transfer. This new degree builds upon the successful Bachelor of Biotechnology Innovation which has

seen graduates realise outstanding job outcomes, often successfully competing against graduates with PhDs and MBAs.

### Career Outcomes

As a graduate of the Bachelor of Technology Innovation you can choose to be a business-savvy scientist, operate in the world of commercialisation and technology transfer, or start up a business enterprise to bring your own products to market. Graduates of the predecessor degree have taken up key positions in the biotechnology sector as investment analysts and advisors, business development associates, commercialisation officers, government advisers and scientists working on commercially oriented products. Some graduates have even established their own companies.

### Professional Recognition

No professional accreditation is currently available for courses in the games and entertainment area.

### Your Course

#### Year 1

You will be able to choose subjects from across a range of science and technology areas to help you define your choice of disciplinary major. The introductory core studies will provide you with a solid foundation in your chosen disciplinary skills and build the basis for future studies.

#### Year 2

You will be introduced to advanced theoretical concepts and practical skills that serve to build your expertise in the science and technology disciplines. A thorough understanding of science and technology theory and practice is necessary to understand, evaluate and communicate aspects of innovation to the business world.

#### Year 3

In third year, you will complete your science and technology disciplinary advanced studies and take basic and advanced business units that encompass the business of innovation, intellectual property law and professional skills development. Through the action learning framework of the Student Enterprise Scheme, professional skills development will concentrate on communication and team-building skills. These exercises will help prepare you for industry-based consultancy style projects and extra-curricular networking events and an industry career.

#### Year 4

You will undertake integrative business units that develop the entrepreneurial mindset needed for a career in innovation commercialisation. You will further develop your professional skills through networking events. Student teams will source an industry-based consultancy-style project that will serve to provide real world experience and ready you for your future career.

### Digital Media Major Course Structure

The course consists of four blocks of studies

**BLOCK A** Core Studies - 13 units (156 credit points)



# FACULTY OF SCIENCE AND TECHNOLOGY

BLOCK B Major - 13 units (156 credit points)

BLOCK C Minor - 4 units (48 credit points)

BLOCK D Electives - 2 units (24 credit points)

## Year 1 Semester 1

INB101	Impact of IT
INB104	Building IT Systems
INB180	Computer Games Studies
INB182	Introducing Design

## Year 1 Semester 2

INB103	Industry Insights
INB181	Introduction to Games Production
	Block C or Block D Unit
	Block C or Block D Unit

## Year 2 Semester 1

INB385	Multimedia Systems
KIB101	Visual Communication
KIB230	Interface and Information Design
	Block C or Block D Unit

## Year 2 Semester 2

INB386	Advanced Multimedia Systems
KIB102	Visual Interactions
	Block C or Block D Unit
	Block C or Block D Unit

## Year 3 Semester 1

BSB115	Management
INB345	Mobile Devices
KIB309	Embodied Interactions
STB551	Engaging with the Innovation Industry

## Year 3 Semester 2

BSB126	Marketing
KIB314	Tangible Media
MGB223	Entrepreneurship and Innovation
	Block C or Block D Unit

## Year 4 Semester 1

AMB240	Marketing Planning and Management
LWS007	Introduction To Intellectual Property Law
MGB324	Managing Business Growth
STB709-1	Innovation and Commercialisation Project

## Year 4 Semester 2

BSB311	Innovation Commercialisation Strategies
MGB225	Intercultural Communication and Negotiation Skills
STB709-2	Innovation and Commercialisation Project
STB709-3	Innovation and Commercialisation Project

## Block C Minor List

### ANIMATION:

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

### GAME DESIGN:

KIB201	Concept Development for Game Design and Interactive Media
KIB202	Enabling Immersion
INB280	Fundamentals of Game Design
	Plus ONE of the following two units:
INB281	Advanced Game Design
INB272	Interaction Design

### MATHEMATICS FOR GAMES:

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

### MOBILE AND NETWORK TECHNOLOGIES:

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

### SOUND DESIGN:

KMB107	Sound, Image, Text
KMB119	Music and Sound Production 1
KMB129	Music and Sound Production 2
KMB252	Multi-Platform Sound Design

### SOFTWARE TECHNOLOGIES:

INB210	Databases
INB250	Foundations of Computer Science
INB270	Programming
INB371	Data Structures and Algorithms

### PHYSICS FOR GAMES:

MAB121	Calculus and Differential Equations
PQB250	Mechanics and Electromagnetism
PQB251	Waves and Optics
	Plus ONE of the following three units:



PQB450 Energy, Fields and Radiation

PQB460 Astrophysics 1

PCB593 Digital Image Processing

## Bachelor of Technology Innovation (Ecology) (ST50)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 070694G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418311

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA); Maths B (4, SA) and Chemistry (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 96

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Overview

Ecology is the study of relationships between organisms and their environment. Ecology helps us to understand the distribution and abundance of organisms. As an applied science it is used to design strategies for the management of populations of organisms (both natural and commercial). New means of managing populations in the deteriorating environment are key areas of growth relating to environmental management and conservation providing new commercial opportunities.

The Bachelor of Technology Innovation is designed to train the next generation of techno-entrepreneurs to translate research outcomes in science and technology into business opportunities. The four year coursework plus honours degree focuses on the business of innovation where you will learn the skills required to bring complex emerging technologies to the global marketplace.

While research innovation is critical to the future economy of Australia, it is the commercialisation of innovations that serves to build and strengthen local high-technology industries. Australia already produces many competent scientists but has a poor history of capitalising on research outcomes. You can join an elite group of skilled professionals driving innovation commercialisation in the science and technology sector in Australia or into the international market.

### Why Choose This Course

If you like to work in a dynamic world of translating discovery and creativity into commercial products, meeting people, and working in a high-powered team environment to build money-making enterprises, then this course is for you. The Bachelor of Technology Innovation will allow a rapid

entry into the high-flying world of commercialisation and technology transfer. This new degree builds upon the successful Bachelor of Biotechnology Innovation which has seen graduates realise outstanding job outcomes, often successfully competing against graduates with PhDs and MBAs.

### Career Outcomes

As a graduate of the Bachelor of Technology Innovation you can choose to be a business-savvy scientist, operate in the world of commercialisation and technology transfer, or start up a business enterprise to bring your own products to market. Graduates of the predecessor degree have taken up key positions in the biotechnology sector as investment analysts and advisors, business development associates, commercialisation officers, government advisers and scientists working on commercially oriented products. Some graduates have even established their own companies.

### Professional Recognition

Professional recognition is achieved through membership of a scientific society, for example, the Ecological Society of Australia (ESA) or the Australian Wildlife Management Society (AWMS) and participation in its meetings and professional activities.

### Your Course

#### Year 1

You will be able to choose subjects from across a range of science and technology areas to help you define your choice of disciplinary major. The introductory core studies will provide you with a solid foundation in your chosen disciplinary skills and build the basis for future studies.

#### Year 2

You will be introduced to advanced theoretical concepts and practical skills that serve to build your expertise in the science and technology disciplines. A thorough understanding of science and technology theory and practice is necessary to understand, evaluate and communicate aspects of innovation to the business world.

#### Year 3

In third year, you will complete your science and technology disciplinary advanced studies and take basic and advanced business units that encompass the business of innovation, intellectual property law and professional skills development. Through the action learning framework of the Student Enterprise Scheme, professional skills development will concentrate on communication and team-building skills. These exercises will help prepare you for industry-based consultancy style projects and extra-curricular networking events and an industry career.

#### Year 4

You will undertake integrative business units that develop the entrepreneurial mindset needed for a career in innovation commercialisation. You will further develop your professional skills through networking events. Student teams will source an industry-based consultancy-style project that will serve to provide real world experience and

ready you for your future career.

### Ecology Major Course Structure

#### Year 1, Semester 1

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Plus ONE of the following four units:
MAB101	Statistical Data Analysis 1
MAB105	Preparatory Mathematics
MAB121	Calculus and Differential Equations
MAB120	Algebra and Calculus
	NOTE: Students with a Sound Achievement in Maths B and NOT wishing to major in Mathematics or Physics should enrol in MAB101
	Students without a Sound Achievement (4 semesters) in Maths B should enrol in MAB105
	Students with a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB121
	Students without a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB120

#### Year 1, Semester 2

NQB201	Planet Earth
NQB202	History of Life on Earth
SCB120	Plant and Animal Physiology
	Plus ONE of the following three units:
SCB121	Chemistry 2
SCB122	Cell and Molecular Biology
SCB123	Physical Science Applications

#### Year 2, Semester 1

NQB321	Ecology
	Plus ONE of the following three units
NQB302	Earth Surface Systems
NQB322	Invertebrate Biology
NQB323	Plant Biology
	Plus TWO units from the relevant options List which may include one unit from outside of the Faculty
	Relevant Options List for Year 2 Semester 1
NQB322	Invertebrate Biology
NQB323	Plant Biology
	Elective

#### Year 2, Semester 2

NQB421	Experimental Design
NQB422	Genetics and Evolution
	Plus TWO units from the relevant options List which may include one unit from outside of the

Faculty

Relevant Options List for Year 2 Semester 2

NQB423	Vertebrate Biology
	Elective

#### Year 3, Semester 1

BSB115	Management
NQB521	Population Genetics and Molecular Ecology
NQB523	Population Management
STB551	Engaging with the Innovation Industry

#### Year 3, Semester 2

BSB126	Marketing
MGB223	Entrepreneurship and Innovation
NQB622	Conservation Biology
NQB623	Ecological Systems

#### Year 4, Semester 1

AMB240	Marketing Planning and Management
LWS007	Introduction To Intellectual Property Law
MGB324	Managing Business Growth
STB709-1	Innovation and Commercialisation Project

#### Year 4, Semester 2

BSB311	Innovation Commercialisation Strategies
MGB225	Intercultural Communication and Negotiation Skills
STB709-2	Innovation and Commercialisation Project
STB709-2	Innovation and Commercialisation Project

## Bachelor of Technology Innovation (Environmental Science) (ST50)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 070694G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418311

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA), Chemistry (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 96

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Overview

Environmental Science is the application of fundamental, core science disciplines to problems encountered in the management and understanding of our environment. Issues of sustainability and resource utilisation mean that environmental science is a key area for development of new products and processes.

The Bachelor of Technology Innovation is designed to train the next generation of techno-entrepreneurs to translate research outcomes in science and technology into business opportunities. The four year coursework plus honours degree focuses on the business of innovation where you will learn the skills required to bring complex emerging technologies to the global marketplace.

While research innovation is critical to the future economy of Australia, it is the commercialisation of innovations that serves to build and strengthen local high-technology industries. Australia already produces many competent scientists but has a poor history of capitalising on research outcomes. You can join an elite group of skilled professionals driving innovation commercialisation in the science and technology sector in Australia or into the international market.

### Why Choose This Course

If you like to work in a dynamic world of translating discovery and creativity into commercial products, meeting people, and working in a high-powered team environment to build money-making enterprises, then this course is for you. The Bachelor of Technology Innovation will allow a rapid entry into the high-flying world of commercialisation and technology transfer. This new degree builds upon the successful Bachelor of Biotechnology Innovation which has

seen graduates realise outstanding job outcomes, often successfully competing against graduates with PhDs and MBAs.

### Career Outcomes

As a graduate of the Bachelor of Technology Innovation you can choose to be a business-savvy scientist, operate in the world of commercialisation and technology transfer, or start up a business enterprise to bring your own products to market. Graduates of the predecessor degree have taken up key positions in the biotechnology sector as investment analysts and advisors, business development associates, commercialisation officers, government advisers and scientists working on commercially oriented products. Some graduates have even established their own companies.

### Professional Recognition

Graduates are eligible for membership of the Environment Institute of Australia and New Zealand (EIANZ) and a variety of other scientific societies, including the Soil Science Society of Australia (SSSA) and the Ecological Society of Australia (ESA).

### Your Course

#### Year 1

You will be able to choose subjects from across a range of science and technology areas to help you define your choice of disciplinary major. The introductory core studies will provide you with a solid foundation in your chosen disciplinary skills and build the basis for future studies.

#### Year 2

You will be introduced to advanced theoretical concepts and practical skills that serve to build your expertise in the science and technology disciplines. A thorough understanding of science and technology theory and practice is necessary to understand, evaluate and communicate aspects of innovation to the business world.

#### Year 3

In third year, you will complete your science and technology disciplinary advanced studies and take basic and advanced business units that encompass the business of innovation, intellectual property law and professional skills development. Through the action learning framework of the Student Enterprise Scheme, professional skills development will concentrate on communication and team-building skills. These exercises will help prepare you for industry-based consultancy style projects and extra-curricular networking events and an industry career.

#### Year 4

You will undertake integrative business units that develop the entrepreneurial mindset needed for a career in innovation commercialisation. You will further develop your professional skills through networking events. Student teams will source an industry-based consultancy-style project that will serve to provide real world experience and ready you for your future career.

### Environmental Science Major Course Structure

# FACULTY OF SCIENCE AND TECHNOLOGY

## Year 1 Semester 1

SCB110 Science Concepts and Global Systems

SCB111 Chemistry 1

SCB112 Cellular Basis of Life

Plus ONE of the following four units:

MAB101 Statistical Data Analysis 1

MAB105 Preparatory Mathematics

MAB120 Algebra and Calculus

MAB121 Calculus and Differential Equations

NOTE: Students with a Sound Achievement in Maths B and NOT wishing to major in Mathematics or Physics should enrol in MAB101

Students without a Sound Achievement (4 semesters) in Maths B should enrol in MAB105

Students with a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB121

Students without a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB120

## Year 1 Semester 2

NQB202 History of Life on Earth

SCB120 Plant and Animal Physiology

SCB123 Physical Science Applications

Plus ONE of the following two units:

NQB201 Planet Earth

SCB121 Chemistry 2

## Year 2 Semester 1

NQB302 Earth Surface Systems

NQB321 Ecology

Plus TWO units from the relevant options List which may include one unit from outside the Faculty

Relevant Options List for Year 2 Semester 1

NQB322 Invertebrate Biology

NQB323 Plant Biology

Elective

## Year 2 Semester 2

NQB403 Soils and the Environment

NQB421 Experimental Design

Plus TWO units from the relevant options List which may include one unit from outside the Faculty

Relevant Options List for Year 2 Semester 2

NQB422 Genetics and Evolution

NQB423 Vertebrate Biology

Elective

## Year 3 Semester 1

BSB115 Management

NQB501 Environmental Modelling

STB551 Engaging with the Innovation Industry

Plus ONE of the two following units:

NQB502 Field Methods in Natural Resource Sciences

NQB503 Spatial Analysis of Environmental Systems

## Year 3 Semester 2

BSB126 Marketing

MGB223 Entrepreneurship and Innovation

NQB601 Sustainable Environmental Management

Plus ONE of the three following units:

NQB602 Environmental Chemistry

NQB614 Groundwater Systems

NQB623 Ecological Systems

## Year 4 Semester 1

AMB240 Marketing Planning and Management

LWS007 Introduction To Intellectual Property Law

MGB324 Managing Business Growth

STB709-1 Innovation and Commercialisation Project

## Year 4 Semester 2

BSB311 Innovation Commercialisation Strategies

MGB225 Intercultural Communication and Negotiation Skills

STB709-2 Innovation and Commercialisation Project

STB709-3 Innovation and Commercialisation Project



## Bachelor of Technology Innovation (Forensic Science) (ST50)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 070694G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418311

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA), Chemistry (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 96

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Overview

Forensic Science involves the application of chemical and biological principles and laboratory processes to identify and quantify matter within a legal context. Areas that are relevant to forensic science are wide ranging, and include: the detection and identification of illicit drugs, explosive and gunshot residues, accelerants used in arson cases, and trace evidence (eg paint, glass, fibres, soil); DNA profiling, where it is possible to distinguish between individuals on the basis of samples involving blood, saliva, hair or semen; toxicology studies to identify illicit and pharmaceutical drugs and poisons and interpret toxicity levels and their effect on the human body; and fingerprinting.

The Bachelor of Technology Innovation is designed to train the next generation of techno-entrepreneurs to translate research outcomes in science and technology into business opportunities. The four year coursework plus honours degree focuses on the business of innovation where you will learn the skills required to bring complex emerging technologies to the global marketplace.

While research innovation is critical to the future economy of Australia, it is the commercialisation of innovations that serves to build and strengthen local high-technology industries. Australia already produces many competent scientists but has a poor history of capitalising on research outcomes. You can join an elite group of skilled professionals driving innovation commercialisation in the science and technology sector in Australia or into the international market.

### Why Choose This Course

If you like to work in a dynamic world of translating discovery and creativity into commercial products, meeting

people, and working in a high-powered team environment to build money-making enterprises, then this course is for you. The Bachelor of Technology Innovation will allow a rapid entry into the high-flying world of commercialisation and technology transfer. This new degree builds upon the successful Bachelor of Biotechnology Innovation which has seen graduates realise outstanding job outcomes, often successfully competing against graduates with PhDs and MBAs.

### Career Outcomes

As a graduate of the Bachelor of Technology Innovation you can choose to be a business-savvy scientist, operate in the world of commercialisation and technology transfer, or start up a business enterprise to bring your own products to market. Graduates of the predecessor degree have taken up key positions in the biotechnology sector as investment analysts and advisors, business development associates, commercialisation officers, government advisers and scientists working on commercially oriented products. Some graduates have even established their own companies.

### Professional Recognition

Graduates may be eligible for membership of the Australian and New Zealand Forensic Society (ANZFSS), AusBiotech Ltd, the Australian Society for Biochemistry and Molecular Biology (ASBMB), and the Royal Australian Chemical Institute (RACI).

### Your Course

#### Year 1

You will be able to choose subjects from across a range of science and technology areas to help you define your choice of disciplinary major. The introductory core studies will provide you with a solid foundation in your chosen disciplinary skills and build the basis for future studies.

#### Year 2

You will be introduced to advanced theoretical concepts and practical skills that serve to build your expertise in the science and technology disciplines. A thorough understanding of science and technology theory and practice is necessary to understand, evaluate and communicate aspects of innovation to the business world.

#### Year 3

In third year, you will complete your science and technology disciplinary advanced studies and take basic and advanced business units that encompass the business of innovation, intellectual property law and professional skills development. Through the action learning framework of the Student Enterprise Scheme, professional skills development will concentrate on communication and team-building skills. These exercises will help prepare you for industry-based consultancy style projects and extra-curricular networking events and an industry career.

#### Year 4

You will undertake integrative business units that develop the entrepreneurial mindset needed for a career in innovation commercialisation. You will further develop your professional skills through networking events. Student

teams will source an industry-based consultancy-style project that will serve to provide real world experience and ready you for your future career.

## Forensic Science Major Course structure

### Year 1, Semester 1

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Plus ONE from the following four units:
MAB101	Statistical Data Analysis 1
MAB105	Preparatory Mathematics
MAB120	Algebra and Calculus
MAB121	Calculus and Differential Equations
	NOTE: Students with a Sound Achievement in Maths B and NOT wishing to major in Mathematics or Physics should enrol in MAB101
	Students without a Sound Achievement (4 semesters) in Maths B should enrol in MAB105
	Students with a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB121
	Students without a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB120

### Year 1, Semester 2

SCB121	Chemistry 2
SCB122	Cell and Molecular Biology
SCB123	Physical Science Applications
SCB131	Experimental Chemistry

### Year 2, Semester 1

LQB383	Molecular and Cellular Regulation
SCB384	Forensic Sciences - From Crime Scene to Court
	Plus TWO units from the relevant options List which may include one unit from outside the Faculty
	Relevant Options List Year 2 Semester 1
PQB331	Structure and Bonding
	Elective

### Year 2, Semester 2

JSB979	Forensic Scientific Evidence
PQB312	Analytical Chemistry For Scientists and Technologists
	Plus TWO units from the relevant options List which may include one unit from outside the Faculty
	Relevant Options List Year 2 Semester 2
PQB442	Chemical Spectroscopy
	Elective

### Year 3, Semester 1

BSB115	Management
PQB513	Instrumental Analysis
PQB584	Forensic Physical Evidence
STB551	Engaging with the Innovation Industry

### Year 3, Semester 2

BSB126	Marketing
MGB223	Entrepreneurship and Innovation
LQB680	Forensic DNA Profiling
PQB684	Forensic Analysis

### Year 4, Semester 1

AMB240	Marketing Planning and Management
LWS007	Introduction To Intellectual Property Law
MGB324	Managing Business Growth
STB709-1	Innovation and Commercialisation Project

### Year 4, Semester 2

BSB311	Innovation Commercialisation Strategies
MGB225	Intercultural Communication and Negotiation Skills
STB709-2	Innovation and Commercialisation Project
STB709-3	Innovation and Commercialisation Project

## Bachelor of Technology Innovation (Games Technology) (ST50)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 070694G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418311

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA), Chemistry (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 96

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Overview

Software design and development underlying computer games and multimedia are fundamental to a growing global industry where creativity and innovation can quickly become new products in the global marketplace.

The Bachelor of Technology Innovation is designed to train the next generation of techno-entrepreneurs to translate research outcomes in science and technology into business opportunities. The four year coursework plus honours degree focuses on the business of innovation where you will learn the skills required to bring complex emerging technologies to the global marketplace.

While research innovation is critical to the future economy of Australia, it is the commercialisation of innovations that serves to build and strengthen local high-technology industries. Australia already produces many competent scientists but has a poor history of capitalising on research outcomes. You can join an elite group of skilled professionals driving innovation commercialisation in the science and technology sector in Australia or into the international market.

### Why Choose This Course

If you like to work in a dynamic world of translating discovery and creativity into commercial products, meeting people, and working in a high-powered team environment to build money-making enterprises, then this course is for you. The Bachelor of Technology Innovation will allow a rapid entry into the high-flying world of commercialisation and technology transfer. This new degree builds upon the successful Bachelor of Biotechnology Innovation which has seen graduates realise outstanding job outcomes, often successfully competing against graduates with PhDs and

MBAs.

### Career Outcomes

As a graduate of the Bachelor of Technology Innovation you can choose to be a business-savvy scientist, operate in the world of commercialisation and technology transfer, or start up a business enterprise to bring your own products to market. Graduates of the predecessor degree have taken up key positions in the biotechnology sector as investment analysts and advisors, business development associates, commercialisation officers, government advisers and scientists working on commercially oriented products. Some graduates have even established their own companies.

### Professional Recognition

No professional accreditation is currently available for courses in the games and entertainment area.

### Your Course

#### Year 1

You will be able to choose subjects from across a range of science and technology areas to help you define your choice of disciplinary major. The introductory core studies will provide you with a solid foundation in your chosen disciplinary skills and build the basis for future studies.

#### Year 2

You will be introduced to advanced theoretical concepts and practical skills that serve to build your expertise in the science and technology disciplines. A thorough understanding of science and technology theory and practice is necessary to understand, evaluate and communicate aspects of innovation to the business world.

#### Year 3

In third year, you will complete your science and technology disciplinary advanced studies and take basic and advanced business units that encompass the business of innovation, intellectual property law and professional skills development. Through the action learning framework of the Student Enterprise Scheme, professional skills development will concentrate on communication and team-building skills. These exercises will help prepare you for industry-based consultancy style projects and extra-curricular networking events and an industry career.

#### Year 4

You will undertake integrative business units that develop the entrepreneurial mindset needed for a career in innovation commercialisation. You will further develop your professional skills through networking events. Student teams will source an industry-based consultancy-style project that will serve to provide real world experience and ready you for your future career.

### Games Technology Major Course Structure

The course consists of four blocks of studies

BLOCK A Core Studies - 13 units (156 credit points)

BLOCK B Major - 13 units (156 credit points)

BLOCK C Minor - 4 units (48 credit points)

# FACULTY OF SCIENCE AND TECHNOLOGY

## BLOCK D Electives - 2 units (24 credit points)

### Year 1 Semester 1

INB101	Impact of IT
INB104	Building IT Systems
INB180	Computer Games Studies
INB182	Introducing Design

### Year 1 Semester 2

INB103	Industry Insights
INB181	Introduction to Games Production
INB270	Programming
MAB281	Mathematics for Computer Graphics

### Year 2 Semester 1

INB370	Software Development
INB371	Data Structures and Algorithms
	Block C or Block D Unit
	Block C or Block D Unit

### Year 2 Semester 2

INB210	Databases
INB250	Foundations of Computer Science
INB381	Modelling and Animation Techniques
	Block C or Block D Unit

### Year 3 Semester 1

BSB115	Management
STB551	Engaging with the Innovation Industry
	Block C or Block D Unit
	Plus ONE of the following two units:
INB382	Real Time Rendering Techniques
INB383	AI for Games

### Year 3 Semester 2

BSB126	Marketing
MGB223	Entrepreneurship and Innovation
	Block C or Block D Unit
	Block C or Block D Unit

### Year 4 Semester 1

AMB240	Marketing Planning and Management
LWS007	Introduction To Intellectual Property Law
MGB324	Managing Business Growth
STB709-1	Innovation and Commercialisation Project

### Year 4 Semester 2

BSB311	Innovation Commercialisation Strategies
MGB225	Intercultural Communication and Negotiation Skills
STB709-2	Innovation and Commercialisation Project
STB709-3	Innovation and Commercialisation Project

## BLOCK C Minor Units List

### ANIMATION:

KIB105	Animation and Motion Graphics
KIB108	Animation History and Practices
KIB108	Animation History and Practices
KIB225	Character Development, Conceptual Design and Animation Layout
KVB105	Drawing for Design
KVB106	Drawing for Animation

### ADVANCED SOFTWARE TECHNOLOGIES:

INB365	Systems Programming
INB372	Agile Software Development
INB374	Enterprise Software Architecture
	Plus ONE from the following two units:
INB382	Real Time Rendering Techniques
INB383	AI for Games

### DIGITAL MEDIA:

KIB101	Visual Communication
KIB102	Visual Interactions
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems

### GAME DESIGN:

KIB201	Concept Development for Game Design and Interactive Media
KIB202	Enabling Immersion
INB280	Fundamentals of Game Design
	Plus ONE from the following two units:
INB272	Interaction Design
INB281	Advanced Game Design

### MATHEMATICS FOR GAMES:

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

### MOBILE AND NETWORK TECHNOLOGIES:

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

### SOUND DESIGN:

KMB106	Music and Sound for Multimedia
KMB107	Sound, Image, Text

KMB119 Music and Sound Production 1

KMB129 Music and Sound Production 2

**PHYSICS FOR GAMES:**

MAB121 Calculus and Differential Equations

PQB250 Mechanics and Electromagnetism

PQB251 Waves and Optics

Plus ONE from the following three units:

PQB450 Energy, Fields and Radiation

PQB460 Astrophysics 1

PCB593 Digital Image Processing



## Bachelor of Technology Innovation (Geoscience) (ST50)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 070694G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418311

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA), Chemistry (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 96

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Overview

Geoscience is the systematic study of the earth and the dynamic interactions of its systems. Geoscience incorporates a study of the materials of the earth, the natural processes acting in and upon the earth, and its history. Australia has a long history of innovation in the utilisation, recycling and conservation of natural resources and will continue to do so, thus providing for new commercial opportunities in the mining industry.

The Bachelor of Technology Innovation is designed to train the next generation of techno-entrepreneurs to translate research outcomes in science and technology into business opportunities. The four year coursework plus honours degree focuses on the business of innovation where you will learn the skills required to bring complex emerging technologies to the global marketplace.

While research innovation is critical to the future economy of Australia, it is the commercialisation of innovations that serves to build and strengthen local high-technology industries. Australia already produces many competent scientists but has a poor history of capitalising on research outcomes. You can join an elite group of skilled professionals driving innovation commercialisation in the science and technology sector in Australia or into the international market.

### Why Choose This Course

If you like to work in a dynamic world of translating discovery and creativity into commercial products, meeting people, and working in a high-powered team environment to build money-making enterprises, then this course is for you. The Bachelor of Technology Innovation will allow a rapid entry into the high-flying world of commercialisation and

technology transfer. This new degree builds upon the successful Bachelor of Biotechnology Innovation which has seen graduates realise outstanding job outcomes, often successfully competing against graduates with PhDs and MBAs.

### Career Outcomes

As a graduate of the Bachelor of Technology Innovation you can choose to be a business-savvy scientist, operate in the world of commercialisation and technology transfer, or start up a business enterprise to bring your own products to market. Graduates of the predecessor degree have taken up key positions in the biotechnology sector as investment analysts and advisors, business development associates, commercialisation officers, government advisers and scientists working on commercially oriented products. Some graduates have even established their own companies.

### Professional Recognition

Graduates are eligible for membership of the Australasian Institute of Mining and Metallurgy (AIMM), Australian Institute of Geoscientists (AIG), and the Geological Society of Australia (GSA).

### Your Course

#### Year 1

You will be able to choose subjects from across a range of science and technology areas to help you define your choice of disciplinary major. The introductory core studies will provide you with a solid foundation in your chosen disciplinary skills and build the basis for future studies.

#### Year 2

You will be introduced to advanced theoretical concepts and practical skills that serve to build your expertise in the science and technology disciplines. A thorough understanding of science and technology theory and practice is necessary to understand, evaluate and communicate aspects of innovation to the business world.

#### Year 3

In third year, you will complete your science and technology disciplinary advanced studies and take basic and advanced business units that encompass the business of innovation, intellectual property law and professional skills development. Through the action learning framework of the Student Enterprise Scheme, professional skills development will concentrate on communication and team-building skills. These exercises will help prepare you for industry-based consultancy style projects and extra-curricular networking events and an industry career.

#### Year 4

You will undertake integrative business units that develop the entrepreneurial mindset needed for a career in innovation commercialisation. You will further develop your professional skills through networking events. Student teams will source an industry-based consultancy-style project that will serve to provide real world experience and ready you for your future career.

### Geoscience Major Course Structure

**Year 1 Semester 1**

SCB110	Science Concepts and Global Systems
SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Plus ONE of the following four units:
MAB101	Statistical Data Analysis 1
MAB105	Preparatory Mathematics
MAB120	Algebra and Calculus
MAB121	Calculus and Differential Equations
	NOTE: Students with a Sound Achievement in Maths B and NOT wishing to major in Mathematics or Physics should enrol in MAB101
	Students without a Sound Achievement (4 semesters) in Maths B should enrol in MAB105
	Students with a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB121
	Students without a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB120

**Year 1 Semester 2**

NQB201	Planet Earth
NQB202	History of Life on Earth
SCB123	Physical Science Applications
SCB222	Exploration of the Universe

**Year 2 Semester 1**

NQB311	Mineralogy
NQB314	Sedimentary Geology
	Plus TWO units from the relevant options List which may include one unit from outside the Faculty
	Relevant Options List for Year 2 Semester 1
NQB302	Earth Surface Systems
UDB281	Geographic Information Systems
	Elective

**Year 2 Semester 2**

NQB411	Petrology of Igneous and Metamorphic Rocks
NQB412	Structural Geology and Field Methods
	Plus TWO units from the relevant options List which may include one unit from outside the Faculty
	Relevant Options List for Year 2 Semester 2
NQB403	Soils and the Environment
NQB413	Stratigraphy
	Elective

**Year 3 Semester 1**

BSB115	Management
NQB502	Field Methods in Natural Resource Sciences

NQB513	Geophysics
STB551	Engaging with the Innovation Industry

**Year 3 Semester 2**

BSB126	Marketing
MGB223	Entrepreneurship and Innovation
NQB615	Geochemistry
	Plus ONE from the following three units:
NQB612	Basin Analysis and Petroleum Geology
NQB613	Plate Tectonics
NQB614	Groundwater Systems

**Year 4 Semester 1**

AMB240	Marketing Planning and Management
LWS007	Introduction To Intellectual Property Law
MGB324	Managing Business Growth
STB709-1	Innovation and Commercialisation Project

**Year 4 Semester 2**

BSB311	Innovation Commercialisation Strategies
MGB225	Intercultural Communication and Negotiation Skills
STB709-2	Innovation and Commercialisation Project
STB709-3	Innovation and Commercialisation Project

## Bachelor of Technology Innovation (Information Technology) (ST50)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 070694G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418311

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA), Chemistry (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 96

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Overview

Creative and innovative IT ideas that give rise to new products and processes have been a major driver of world economies for over forty years. Existing IT areas such as business process management, data warehousing, networking, web technologies information management and digital societies will merge with other sciences and technologies to forge a future of opportunities for IT savvy technoentrepreneurs.

The Bachelor of Technology Innovation is designed to train the next generation of techno-entrepreneurs to translate research outcomes in science and technology into business opportunities. The four year coursework plus honours degree focuses on the business of innovation where you will learn the skills required to bring complex emerging technologies to the global marketplace.

While research innovation is critical to the future economy of Australia, it is the commercialisation of innovations that serves to build and strengthen local high-technology industries. Australia already produces many competent scientists but has a poor history of capitalising on research outcomes. You can join an elite group of skilled professionals driving innovation commercialisation in the science and technology sector in Australia or into the international market.

### Why Choose This Course

If you like to work in a dynamic world of translating discovery and creativity into commercial products, meeting people, and working in a high-powered team environment to build money-making enterprises, then this course is for you. The Bachelor of Technology Innovation will allow a rapid entry into the high-flying world of commercialisation and

technology transfer. This new degree builds upon the successful Bachelor of Biotechnology Innovation which has seen graduates realise outstanding job outcomes, often successfully competing against graduates with PhDs and MBAs.

### Career Outcomes

As a graduate of the Bachelor of Technology Innovation you can choose to be a business-savvy scientist, operate in the world of commercialisation and technology transfer, or start up a business enterprise to bring your own products to market. Graduates of the predecessor degree have taken up key positions in the biotechnology sector as investment analysts and advisors, business development associates, commercialisation officers, government advisers and scientists working on commercially oriented products. Some graduates have even established their own companies.

### Professional Recognition

On graduation, you will be eligible to join professional organisations relevant to your disciplinary specialisation, the Association of Professional Engineers, Scientists and Managers, Australia and the Australian Institute of Management.

### Your Course

#### Year 1

You will be able to choose subjects from across a range of science and technology areas to help you define your choice of disciplinary major. The introductory core studies will provide you with a solid foundation in your chosen disciplinary skills and build the basis for future studies.

#### Year 2

You will be introduced to advanced theoretical concepts and practical skills that serve to build your expertise in the science and technology disciplines. A thorough understanding of science and technology theory and practice is necessary to understand, evaluate and communicate aspects of innovation to the business world.

#### Year 3

In third year, you will complete your science and technology disciplinary advanced studies and take basic and advanced business units that encompass the business of innovation, intellectual property law and professional skills development. Through the action learning framework of the Student Enterprise Scheme, professional skills development will concentrate on communication and team-building skills. These exercises will help prepare you for industry-based consultancy style projects and extra-curricular networking events and an industry career.

#### Year 4

You will undertake integrative business units that develop the entrepreneurial mindset needed for a career in innovation commercialisation. You will further develop your professional skills through networking events. Student teams will source an industry-based consultancy-style project that will serve to provide real world experience and ready you for your future career.

## Information Technology Major Course Structure

Plus ONE unit either from the IT Breadth Options List or the IT Specialisation Options List

### Year 1 Semester 1

INB101	Impact of IT
INB102	Emerging Technology
INB103	Industry Insights
INB104	Building IT Systems

### Year 1 Semester 2

Choose THREE units from the IT Breadth Options List

Plus ONE unit which may be any Faculty of Science and Technology unit or a unit from another Faculty

Please note that students must take a total of TWO Faculty of Science and Technology Units and a total of TWO units from another Faculty

### Year 2 Semester 1

INB201	Scalable Systems Development
	Plus ONE unit from the IT Breadth Options List
	Plus ONE unit which may be any Faculty of Science and Technology unit or a unit from another Faculty
	Plus ONE unit from the IT Specialisation Options List
	Please note that students must take a total of TWO Faculty of Science and Technology Units and a total of TWO units from another Faculty

### Year 2 Semester 2

Choose ONE unit from the IT Specialisation Options List

Plus TWO units which may be any Faculty of Science and Technology unit or a unit from another Faculty

Plus ONE unit either from the IT Breadth Options List or the IT Specialisation Options List

Please note that students must take a total of TWO Faculty of Science and Technology Units and a total of TWO units from another Faculty

### Year 3 Semester 1

BSB115	Management
STB551	Engaging with the Innovation Industry
	Plus ONE unit from the IT Specilisation Options List
	Plus ONE unit either from the IT Breadth Options List or the IT Specialisation Options List

### Year 3 Semester 2

BSB126	Marketing
MGB223	Entrepreneurship and Innovation
	Plus ONE unit from the IT Specilisation Options List

### Year 4 Semester 1

AMB240	Marketing Planning and Management
LWS007	Introduction To Intellectual Property Law
MGB324	Managing Business Growth
STB709-1	Innovation and Commercialisation Project

### Year 4 Semester 2

BSB311	Innovation Commercialisation Strategies
MGB225	Intercultural Communication and Negotiation Skills
STB709-2	Innovation and Commercialisation Project
STB709-3	Innovation and Commercialisation Project

### Information Technology Breadth Options List

Students must complete FOUR units from the following list:

INB120	Corporate Systems
INB210	Databases
INB220	Business Analysis
INB250	Foundations of Computer Science
INB251	Networks
INB255	Security
INB270	Programming
INB271	The Web
INB272	Interaction Design

### Information Technology Specialisation Options List

Students must complete FOUR units from the following list. Please ensure you have completed a minimum of 36 credit points (3 units) of IT Breadth Option Units before commencing these units.

#### ENTERPRISE SYSTEMS:

INB123	Project Management Practice
INB221	Technology Management
INB311	Enterprise Systems
INB312	Enterprise Systems Applications

#### WEB TECHNOLOGIES:

INB313	Electronic Commerce Site Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems

#### BUSINESS PROCESS MANAGEMENT:

INB320	Business Process Modelling
INB321	Business Process Management
INB322	Information Systems Consulting

INB323	Smart Services
	DATA WAREHOUSING:
INB340	Database Design
INB341	Software Development With Oracle
INB342	Enterprise Data Mining and Data Analysis
INB343	Advanced Data Mining and Data Warehousing
	NETWORK SYSTEMS:
INB350	Internet Protocols and Services
INB351	Unix Network Administration
INB352	Network Planning
INB353	Wireless and Mobile Networks
	SOFTWARE ENGINEERING:
INB370	Software Development
INB371	Data Structures and Algorithms
INB372	Agile Software Development
INB374	Enterprise Software Architecture
	DIGITAL ENVIRONMENTS
INB334	Information Issues and Values
INB345	Mobile Devices
INB346	Enterprise 2.0
INB347	Web 2.0 Applications
	UNGROUPED UNITS:
INB355	Cryptology and Protocols
INB365	Systems Programming
INB860	Computational Intelligence for Control and Embedded Systems



## Bachelor of Technology Innovation (Microbiology) (ST50)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 070694G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418311

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA), Chemistry (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 96

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Overview

Microbiology is the study of living organisms of microscopic size. The principal components are bacteriology, virology and mycology, and areas of fundamental importance in the applied sciences of pathology and immunology. Diagnostics of viral and bacterial infection and immunology form the basis of recent innovation in microbial biotechnology.

The Bachelor of Technology Innovation is designed to train the next generation of techno-entrepreneurs to translate research outcomes in science and technology into business opportunities. The four year coursework plus honours degree focuses on the business of innovation where you will learn the skills required to bring complex emerging technologies to the global marketplace.

While research innovation is critical to the future economy of Australia, it is the commercialisation of innovations that serves to build and strengthen local high-technology industries. Australia already produces many competent scientists but has a poor history of capitalising on research outcomes. You can join an elite group of skilled professionals driving innovation commercialisation in the science and technology sector in Australia or into the international market.

### Why Choose This Course

If you like to work in a dynamic world of translating discovery and creativity into commercial products, meeting people, and working in a high-powered team environment to build money-making enterprises, then this course is for you. The Bachelor of Technology Innovation will allow a rapid entry into the high-flying world of commercialisation and technology transfer. This new degree builds upon the successful Bachelor of Biotechnology Innovation which has

seen graduates realise outstanding job outcomes, often successfully competing against graduates with PhDs and MBAs.

### Career Outcomes

As a graduate of the Bachelor of Technology Innovation you can choose to be a business-savvy scientist, operate in the world of commercialisation and technology transfer, or start up a business enterprise to bring your own products to market. Graduates of the predecessor degree have taken up key positions in the biotechnology sector as investment analysts and advisors, business development associates, commercialisation officers, government advisers and scientists working on commercially oriented products. Some graduates have even established their own companies.

### Professional Recognition

Graduates are eligible for membership of the Australian Society for Microbiology (ASM).

### Your Course

#### Year 1

You will be able to choose subjects from across a range of science and technology areas to help you define your choice of disciplinary major. The introductory core studies will provide you with a solid foundation in your chosen disciplinary skills and build the basis for future studies.

#### Year 2

You will be introduced to advanced theoretical concepts and practical skills that serve to build your expertise in the science and technology disciplines. A thorough understanding of science and technology theory and practice is necessary to understand, evaluate and communicate aspects of innovation to the business world.

#### Year 3

In third year, you will complete your science and technology disciplinary advanced studies and take basic and advanced business units that encompass the business of innovation, intellectual property law and professional skills development. Through the action learning framework of the Student Enterprise Scheme, professional skills development will concentrate on communication and team-building skills. These exercises will help prepare you for industry-based consultancy style projects and extra-curricular networking events and an industry career.

#### Year 4

You will undertake integrative business units that develop the entrepreneurial mindset needed for a career in innovation commercialisation. You will further develop your professional skills through networking events. Student teams will source an industry-based consultancy-style project that will serve to provide real world experience and ready you for your future career.

### Microbiology Major Course Structure

#### Year 1 Semester 1

SCB110 Science Concepts and Global Systems

# FACULTY OF SCIENCE AND TECHNOLOGY

SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Plus ONE from the following four units:
MAB101	Statistical Data Analysis 1
MAB105	Preparatory Mathematics
MAB120	Algebra and Calculus
MAB121	Calculus and Differential Equations
	NOTE: Students with a Sound Achievement in Maths B and NOT wishing to major in Mathematics or Physics should enrol in MAB101
	Students without a Sound Achievement (4 semesters) in Maths B should enrol in MAB105
	Students with a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB121
	Students without a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB120

## Year 1 Semester 2

SCB120	Plant and Animal Physiology
SCB121	Chemistry 2
SCB122	Cell and Molecular Biology
SCB123	Physical Science Applications

## Year 2 Semester 1

LQB381	Biochemistry: Structure and Function
LQB386	Microbial Structure and Function
	Plus TWO units from the relevant options List which may include one unit from outside the Faculty
	Relevant Options List for Year 2 Semester 1:
LQB383	Molecular and Cellular Regulation
LQB388	Medical Physiology 1
	Elective

## Year 2 Semester 2

LQB483	Molecular Biology Techniques
LQB486	Clinical Microbiology 1
	Plus TWO units from the relevant options List which may include one unit from outside the Faculty
	Relevant Options List for Year 2 Semester 2:
LQB481	Biochemical Pathways and Metabolism
LQB484	Introduction to Genomics and Bioinformatics
LQB488	Medical Physiology 2
LQB489	Plant Physiology and Cell Biology
	Elective

## Year 3 Semester 1

BSB115	Management
LQB586	Clinical Microbiology 2
LQB587	Applied Microbiology 1: Water, Air and Soil

STB551	Engaging with the Innovation Industry
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## Year 3 Semester 2

BSB126	Marketing
MGB223	Entrepreneurship and Innovation
LQB686	Microbial Technology and Immunology
LQB687	Applied Microbiology 2: Food and Quality Assurance

## Year 4 Semester 1

AMB240	Marketing Planning and Management
LWS007	Introduction To Intellectual Property Law
MGB324	Managing Business Growth
STB709-1	Innovation and Commercialisation Project

## Year 4 Semester 2

BSB311	Innovation Commercialisation Strategies
MGB225	Intercultural Communication and Negotiation Skills
STB709-2	Innovation and Commercialisation Project
STB709-3	Innovation and Commercialisation Project

## Bachelor of Technology Innovation (Physics) (ST50)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 070694G

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2011: CSP \$2,178 (indicative) per semester

**International Fees (indicative):** 2011: \$12,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February and July

**QTAC code:** 418311

**Past rank cut-off:** 76

**Past OP cut-off:** 12

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA), Chemistry (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.qut.edu.au/assumed-knowledge>

**Total credit points:** 384

**Standard credit points per full-time semester:** 96

**Course coordinator:** Associate Professor Chris Collet

**Campus:** Gardens Point

### Overview

Physics is the science discipline dealing with the natural laws and processes, with the states and properties of matter and energy. Physics also underlies many of the recent advances in information technology, medicine and biotechnology and thus provides a rich supply of innovation that feeds into commercial products.

The Bachelor of Technology Innovation is designed to train the next generation of techno-entrepreneurs to translate research outcomes in science and technology into business opportunities. The four year coursework plus honours degree focuses on the business of innovation where you will learn the skills required to bring complex emerging technologies to the global marketplace.

While research innovation is critical to the future economy of Australia, it is the commercialisation of innovations that serves to build and strengthen local high-technology industries. Australia already produces many competent scientists but has a poor history of capitalising on research outcomes. You can join an elite group of skilled professionals driving innovation commercialisation in the science and technology sector in Australia or into the international market.

### Why Choose This Course

If you like to work in a dynamic world of translating discovery and creativity into commercial products, meeting people, and working in a high-powered team environment to build money-making enterprises, then this course is for you. The Bachelor of Technology Innovation will allow a rapid entry into the high-flying world of commercialisation and technology transfer. This new degree builds upon the successful Bachelor of Biotechnology Innovation which has

seen graduates realise outstanding job outcomes, often successfully competing against graduates with PhDs and MBAs.

### Career Outcomes

As a graduate of the Bachelor of Technology Innovation you can choose to be a business-savvy scientist, operate in the world of commercialisation and technology transfer, or start up a business enterprise to bring your own products to market. Graduates of the predecessor degree have taken up key positions in the biotechnology sector as investment analysts and advisors, business development associates, commercialisation officers, government advisers and scientists working on commercially oriented products. Some graduates have even established their own companies.

### Professional Recognition

Graduates are eligible for membership of the Australian Institute of Physics (AIP).

### Your Course

#### Year 1

You will be able to choose subjects from across a range of science and technology areas to help you define your choice of disciplinary major. The introductory core studies will provide you with a solid foundation in your chosen disciplinary skills and build the basis for future studies.

#### Year 2

You will be introduced to advanced theoretical concepts and practical skills that serve to build your expertise in the science and technology disciplines. A thorough understanding of science and technology theory and practice is necessary to understand, evaluate and communicate aspects of innovation to the business world.

#### Year 3

In third year, you will complete your science and technology disciplinary advanced studies and take basic and advanced business units that encompass the business of innovation, intellectual property law and professional skills development. Through the action learning framework of the Student Enterprise Scheme, professional skills development will concentrate on communication and team-building skills. These exercises will help prepare you for industry-based consultancy style projects and extra-curricular networking events and an industry career.

#### Year 4

You will undertake integrative business units that develop the entrepreneurial mindset needed for a career in innovation commercialisation. You will further develop your professional skills through networking events. Student teams will source an industry-based consultancy-style project that will serve to provide real world experience and ready you for your future career.

### Physics Major Course Structure

#### Year 1 Semester 1

SCB110 Science Concepts and Global Systems

# FACULTY OF SCIENCE AND TECHNOLOGY

SCB111	Chemistry 1
SCB112	Cellular Basis of Life
	Plus ONE from the following four units:
MAB101	Statistical Data Analysis 1
MAB105	Preparatory Mathematics
MAB120	Algebra and Calculus
MAB121	Calculus and Differential Equations
	NOTE: Students with a Sound Achievement in Maths B and NOT wishing to major in Mathematics or Physics should enrol in MAB101
	Students without a Sound Achievement (4 semesters) in Maths B should enrol in MAB105
	Students with a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB121
	Students without a Sound Achievement in Maths C and wishing to major in Mathematics or Physics should enrol in MAB120

## Year 1 Semester 2

MAB122	Algebra and Analytic Geometry
PQB250	Mechanics and Electromagnetism
PQB251	Waves and Optics
	Plus ONE from the following two units
MAB121	Calculus and Differential Equations
MAB220	Computational Mathematics 1

## Year 2 Semester 1

MAB311	Advanced Calculus
PQB350	Thermodynamics of Solids and Gases
	Plus TWO units from the relevant options List which may include one unit from outside the Faculty
	Relevant Unit Options List for Year 2, Semester 1:
PCB593	Digital Image Processing
PQB360	Global Energy Balance and Climate Change
	Elective

## Year 2 Semester 2

PQB450	Energy, Fields and Radiation
PQB451	Electronics and Instrumentation
	Plus TWO ADVANCED units offered by the Faculty of Science and Technology
	Relevant Unit Options List for Year 2, Semester 2:
PQB460	Astrophysics 1

## Year 3 Semester 1

BSB115	Management
PQB550	Quantum and Condensed Matter Physics
PQB551	Physical Analytical Techniques
STB551	Engaging with the Innovation Industry

## Year 3 Semester 2

BSB126	Marketing
MGB223	Entrepreneurship and Innovation
PQB650	Advanced Theoretical Physics
PQB651	Experimental Physics

## Year 4 Semester 1

AMB240	Marketing Planning and Management
LWS007	Introduction To Intellectual Property Law
MGB324	Managing Business Growth
STB709-1	Innovation and Commercialisation Project

## Year 4 Semester 2

BSB311	Innovation Commercialisation Strategies
MGB225	Intercultural Communication and Negotiation Skills
STB709-2	Innovation and Commercialisation Project
STB709-3	Innovation and Commercialisation Project



## University Study Abroad Certificate (U080)

**Year offered:** 2011

**Admissions:** Yes

**CRICOS code:** 050556E

**Course duration (full-time):** One Semester

**International Fees (indicative):** 2011: \$9,450 per semester (flat fee)

**Campus:** Gardens Point and Kelvin Grove

### Course Description

The QUT Study Abroad Certificate is awarded to students who complete one semester of an approved study program. To be eligible, you must successfully complete credit points with a minimum grade of 4 in each unit. These subjects can be used for 48 academic credit at your home institution (subject to approval by the home institution).

### What can I study?

You can select from a comprehensive range of QUT subjects and custom-design your program to suit your interests and meet the requirements of your home university. You can choose from over 2200 units, including well over 300 pre-approved units for Study Abroad and Exchange students, in Built Environment and Engineering, Business, Creative Industries, Education, Health, Law, Justice and Science and Technology.

### Entry Requirements

To be eligible for the Study Abroad program you need:

- a minimum one year of full-time study at a recognised university (this criteria applies to a majority of applicants however, high school students from some countries may meet the entry requirements).
- a GPA (Grade Point Average) of 2.5 or better (on a 4-point scale) or equivalent.
- an English Language Proficiency level in accordance with QUT requirements\* if English is not your first language (QUT requirements are an IELTS overall score of 6.5 with no less than 6.0 in the sub-bands, or a TOEFL score of 575, or a computerised TOEFL score of 230).

\* You may be exempt from taking a formal test if your secondary or post-secondary studies were conducted entirely in English and you have passed an English language subject or one or more Communication subjects.

If students meet academic entry requirements but do not meet English requirements please email [studyabroad@qut.edu.au](mailto:studyabroad@qut.edu.au) for alternative entry options.

### Accounting and Finance

#### Accounting and Finance- Semester 1

AYB114	Business Technologies
AYB115	Governance Issues and Fraud
EFB201	Financial Markets

EFB210	Finance 1
BSB110	Accounting

#### Accounting and Finance- Semester 2

AYB250	Personal Financial Planning
EFB201	Financial Markets
EFB210	Finance 1
BSB110	Accounting

### Advertising and Marketing

#### Advertising and Marketing- Semester 1

AMB120	Bridging Cultures
AMB210	Importing and Exporting
AMB220	Advertising Theory and Practice
AMB263	Introduction To Public Relations
AMB264	Public Relations Techniques
BSB126	Marketing

#### Advertising and Marketing- Semester 2

AMB120	Bridging Cultures
AMB210	Importing and Exporting
AMB220	Advertising Theory and Practice
AMB252	Business Decision Making
AMB263	Introduction To Public Relations
AMB264	Public Relations Techniques
BSB126	Marketing

### General Business

#### General Business- Semester 1

BSB110	Accounting
BSB111	Business Law and Ethics
BSB113	Economics
BSB115	Management
BSB119	Global Business
BSB123	Data Analysis
BSB124	Working in Business
AMB120	Bridging Cultures
BSB126	Marketing

#### General Business- Semester 2

BSB110	Accounting
BSB111	Business Law and Ethics
BSB113	Economics
BSB115	Management
BSB119	Global Business
BSB123	Data Analysis
BSB124	Working in Business
AMB120	Bridging Cultures

### Corporate Systems Management



## Corporate Systems Management- Semester 1

INB103	Industry Insights
INB120	Corporate Systems
INB122	Organisational Databases
INB220	Business Analysis
INB221	Technology Management
INB312	Enterprise Systems Applications
INB321	Business Process Management
INB322	Information Systems Consulting

## Corporate Systems Management- Semester 2

INB103	Industry Insights
INB123	Project Management Practice
INB124	Information Systems Development
INB210	Databases
INB313	Electronic Commerce Site Development
INB320	Business Process Modelling
INB342	Enterprise Data Mining and Data Analysis

## Creative Industries Foundation

### Foundation- Semester 1

KKB101	Creative Industries: People and Practices
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### Foundation- Semester 2

KKB102	Creative Industries: Making Connections
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## Creative Writing

### Creative Writing- Semester 1

KWB101	Introduction to Creative Writing
KWB102	Media Writing
KWB103	Persuasive Writing
KWB104	Creative Writing: the Short Story
KWB107	Creative Non-Fiction
KWB207	Great Books: Creative Writing Classics
KWB211	Stylistics and Poetics

KWB102	Media Writing
KWB104	Creative Writing: the Short Story
KWB106	Corporate Writing and Editing
KWB206	Youth and Children's Writing

## Dance

### Dance- Semester 1

KDB105	Architecture of the Body
KDB110	Deconstructing Dance in History

### Dance- Semester 2

KDB106	Dance Analysis
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KDB204	Australian Dance
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## Drama

### Drama- Semester 1

KTB101	20th Century Performance
KTB102	Process Drama
KTB103	Performing Skills 1: Character and Scene
KTB204	Understanding Performance

### Drama- Semester 2

KTB104	Performance Innovation
KTB106	Performing Skills 2: Style and Form

## Education - General

### Education - Semester 1

EDB004	Teaching and Learning Studies 4: Inclusive Education
EDB036	Introduction To Education

### Education - Semester 2

EDB003	Teaching and Learning Studies 3: Practising Education
EDB041	Indigenous Australia: Country, Kin and Culture

## Education: Cultural and Language Studies

### Education: Cultural and Language Studies- Semester 1

CLB001	Records Management
CLB049	The Global Teacher
CLB050	Movies and Popular Culture
CLB321	Writing Workshop
CLB321	Writing Workshop
CLB403	Gender And Sexuality Issues For Teachers
CLB442	Teaching of Writing
CLB452	Media Literacy And The School

### Education: Cultural and Language Studies- Semester 2

CLB002	Computer Applications in BCT
CLB003	Administrative Procedures
CLB004	Foundation: Language Design and Theory
CLB005	Foundation: Wellness and Active Citizenship
CLB006	Teaching Reading and Writing
CLB320	Studies In Language
CLB323	Teaching Adolescent Literature
CLB347	Teaching English as an Additional Language
CLB441	Children's Literature
EDB001	Teaching and Learning Studies 1: Teaching in New Times
EDB007	Culture Studies: Indigenous Education

## Education: Early Childhood

## Education: Early Childhood- Semester 1

EAB001	Early Childhood Foundations 1: Historical and Comparative Perspectives of EC Education
EAB005	Inclusion in Early Childhood Settings
EAB006	Leadership and Management in Early Childhood Services
EAB008	Early Childhood Language, Literacies and Communication I
EAB013	Early Childhood Society Environment and Health Education
EAB016	Research in Early Childhood Education
EAB027	Early Childhood Mathematics Education 1: Birth to Six Years
EDB006	Learning Networks

## Education: Early Childhood- Semester 2

EAB002	Early Childhood Foundations 2: Families and Childhoods in EC Education and Care
EAB003	Development and Learning in Early Childhood
EAB011	Early Childhood Curriculum: Arts 1
EAB015	Early Childhood Science and Technology Education
EAB021	Early Childhood Health, Safety, Nutrition and Wellness Education
EAB022	Early Childhood Science Education
EAB023	Mathematical Explorations in Early Childhood
EAB028	Early Childhood Mathematics Education 2: Four to 8 Years
EAB361	Storytelling In Early Childhood
EAB363	Creating Curriculum With Young Children

## Education Field Studies

### Important Information

Field studies are only available in Semester 1 each year.

To be eligible to participate in field studies (school-based teaching practicum), Study Abroad students must be accepted into and undertake the appropriate set of units as listed below. Students must be willing to travel to and be based in a rural or remote Queensland school for a 20-day practicum placement. Travel and living costs while on practicum are not covered by tuition fees. Due to high demand, QUT is unable to provide practicum placements to Study Abroad students in the greater Brisbane region.

Study Abroad students who wish to undertake Field Studies in Education must also obtain a Blue Card before their placement begins. A Blue Card confirms that you have passed a screening of your criminal history (the 'Working with Children Check') and have been approved to work with children and young people under 18 years of age. Because Blue Card processing can take 10-12 weeks, students should submit a Blue Card application with their Study Abroad application form. More information about Blue Cards is available at

[http://www.studentservices.qut.edu.au/enrol/course/spec\\_req/bluecard.jsp](http://www.studentservices.qut.edu.au/enrol/course/spec_req/bluecard.jsp)

## Field Studies- Secondary Education

EDB002	Teaching and Learning Studies 2: Development and Learning
EDB031	Secondary Field Studies 1 Plus 2 Curriculum Studies Units from the following list (corresponding with your approved teaching areas)
CLB051	Business Education Curriculum Studies 1
MDB015	Computing Curriculum Studies 1
CLB018	English Curriculum Studies 1
CLB021	English as a Second Language Curriculum Studies 1
CLB024	Film and Media Curriculum Studies 1
HMB292	Health Education Curriculum Studies 1
PUB343	Home Economics Curriculum Studies 1
CLB036	LOTE Curriculum Studies 1
MDB021	Mathematics Curriculum Studies 1
HMB231	Physical Education Curriculum Studies 1
MDB031	Science Education Curriculum Studies 1
CLB054	Social Education Curriculum Studies 1

## Field Studies- Primary Education

EDB002	Teaching and Learning Studies 2: Development and Learning
EDB021	Primary Field Studies 1: Development and Learning in the Field
KKB202	Teaching Primary Dance and Drama
MDB006	Teaching Primary Science

## Field Studies- Early Childhood Education

EDB011	Early Childhood Field Studies 1: Development and Learning in the Field
EAB013	Early Childhood Society Environment and Health Education
EAB027	Early Childhood Mathematics Education 1: Birth to Six Years

## Education: Learning and Professional Studies

### Education: Learning and Professional Studies- Semester 1

SPB018	Teaching Strategies
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### Education: Learning and Professional Studies- Semester 2

SPB008	Middle Years Students and Schools
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## Education: Mathematics, Science and Technology

### Education: Mathematics, Science and Technology- Semester 1

MDB001	Foundation: Scientific and Quantitative Literacy
MDB004	Teaching Primary ICT
MDB005	Teaching Primary Design and Technology

MDB006	Teaching Primary Science
MDB120	Mathematics Curriculum and Pedagogies
MDB349	Excursions in Mathematical Reasoning
MDB388	Numeracy in Games of Skill and Chance
MDB391	Earth And Space

#### Education: Mathematics, Science and Technology- Semester 2

MDB002	Teaching Primary Mathematics 1
MDB030	Understanding and Educating Gifted Learners
MDB349	Excursions in Mathematical Reasoning
MDB397	Digital Media in Education
MDB454	Science, Technology and Society

#### Engineering Design

##### Engineering Design- Semester 1

DAB110	Architectural Design 1
DAB325	Architecture in the 20th Century
DAB330	Integrated Technologies 1
DAB525	Architecture and the City
DEB101	Introducing Design
DEB102	Introducing Design History
DLB130	Landscape Design 1
DLB310	Landscape Design 3
DLB330	Landscape Ecology
DLB510	Landscape Design 5
DLB525	History and Criticism of Landscape Design
DLB530	Landscape Construction 2
DNB101	Industrial Design 1
DNB302	Computer Aided Industrial Design
DNB303	Manufacturing Technology
DNB502	Industrial Design History, Theory and Criticism
DNB702	Human-centred Design Innovation
DTB101	Interior Design 1
DTB302	Colour Studies
DTB303	Technical Design
DTB502	Environments in Transition

##### Engineering Design- Semester 2

DAB210	Architectural Design 2
DAB220	Placemaking in Architecture
DAB420	Architecture, Culture and Space
DAB435	Architectural Technology 1
DEB201	Digital Communication
DEB601	Collaborative Design
DLB210	Landscape Design 2
DLB230	Landscape Horticulture
DLB430	Landscape Construction 1

DLB645	Landscape Practice and Law
DLB810	Landscape Planning and Policy
DNB201	Industrial Design 2
DNB202	Product Usability
DNB402	Socio-cultural Studies
DNB602	New Product Development
DTB201	Interior Design 2
DTB202	Design Technology
DTB402	Interior Systems
DTB403	Human Environment
DTB602	Design in Society

#### Engineering Systems

##### Engineering Systems- Semester 1

ENB211	Dynamics
ENB231	Materials and Manufacturing 1
ENB240	Introduction To Electronics
ENB242	Introduction To Telecommunications
ENB245	Introduction To Design and Professional Practice
ENB246	Engineering Problem Solving
ENB272	Geotechnical Engineering 1
ENB273	Civil Materials
ENB277	Construction Engineering Law
ENB301	Instrumentation and Control
ENB311	Stress Analysis
ENB315	Motor Racing Vehicle Design
ENB316	Design of Machine Elements
ENB319	Biomechanical Engineering Design
ENB331	Materials and Manufacturing 2
ENB333	Operations Management
ENB343	Fields, Transmission and Propagation
ENB348	Aircraft Systems and Flight Control
ENB350	Real-time Computer-based Systems
ENB372	Design and Planning of Highways
ENB375	Structural Engineering 2
ENB378	Water Engineering
ENB379	Transport Engineering and Planning Applications
ENB380	Environmental Law and Assessment
ENB381	Civil Engineering Construction
ENB384	Design of Masonry Structures
ENB421	Thermodynamics 2
ENB432	Engineering Asset Management and Maintenance
ENB435	Computer Integrated Manufacturing
ENB436	Mechatronics System Design
ENB441	Applied Image Processing

## FACULTY OF SCIENCE AND TECHNOLOGY

ENB443	Space Technology
ENB451	Aerospace Radio and Radar Systems
ENB455	Power Electronics
ENB471	Design of Concrete Structures and Foundations
ENB473	Design and Construction of Multi-storey Buildings
ENB478	Advanced Water Engineering
ENB485	Advanced Geotechnical Engineering Practice

### Engineering Systems- Semester 2

ENB103	Electrical Engineering
ENB121	Aerodynamics
ENB201	Fluid Mechanics
ENB215	Fundamentals of Mechanical Design
ENB222	Thermodynamics 1
ENB241	Software Systems Design
ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems
ENB245	Introduction To Design and Professional Practice
ENB274	Design of Environmentally Sustainable Systems
ENB275	Project Engineering 1
ENB276	Structural Engineering 1
ENB312	Dynamics of Machinery
ENB318	Biomechanical Engineering Systems
ENB321	Fluids Dynamics
ENB322	Biofluids
ENB334	Design For Manufacturing
ENB335	Modelling and Simulation For Medical Engineers
ENB336	Industrial Engineering
ENB338	Biomaterials
ENB344	Industrial Electronics
ENB346	Digital Communications
ENB347	Modern Flight Control Systems
ENB352	Communication Environments For Embedded Systems
ENB355	Advanced Systems Design
ENB356	Military Combat Electronics
ENB373	Design and Construction of Steel Structures
ENB376	Transport Engineering
ENB377	Water and Waste Water Treatment Engineering
ENB384	Design of Masonry Structures
ENB422	Energy Management
ENB437	Health Legislation in the Medical Environment
ENB444	Spacecraft Guidance and Navigation
ENB446	Wireless Communications

ENB447	Navigation Systems For Aircraft
ENB448	Signal Processing and Filtering
ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB457	Controls, Systems and Applications
ENB458	Modern Control Systems
ENB472	Project Engineering 2
ENB474	Finite Element Methods
ENB481	Civil Engineering Project Management

### Entertainment

#### Entertainment- Semester 1

KWB102	Media Writing
KXB101	Introduction to Entertainment
KXB201	Entertainment Practice: Balancing Creativity and Business

#### Entertainment- Semester 2

KXB102	Global Entertainment
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### Fashion

#### Fashion- Semester 1

KFB103	Introduction to Fashion
KFB107	Drawing for Fashion
KFB206	Fashion and Modernity

#### Fashion- Semester 2

KFB106	Unspeakable Beauty: A History of Fashion and Style
KFB207	Contemporary Fashion

### Film, TV and New Media

#### Film, TV and New Media- Semester 1

KPB101	Introduction to Film, TV and New Media Production
KPB104	Film and Television Production Resource Management
KPB109	Film and TV History
KPB113	TV and Film Text Analysis
KPB203	Australian Film

#### Film, TV and New Media- Semester 2

KPB101	Introduction to Film, TV and New Media Production
KPB110	The Movie, TV & New Media Business
KPB112	TV and Film Genres
KPB205	Documentary Theory and Practice
KPB206	International Cinema

### Games and Interactive Entertainment

#### Games and Interactive Entertainment- Semester 1

# FACULTY OF SCIENCE AND TECHNOLOGY

INB180	Computer Games Studies
INB280	Fundamentals of Game Design
INB281	Advanced Game Design

## Games and Interactive Entertainment- Semester 2

INB181	Introduction to Games Production
INB272	Interaction Design

## Geography

### Geography- Semester 1

CLB109	World Regions
CLB110	Environment and Society
CLB111	Environmental Hazards
CLB112	South East Asia in Focus
CLB113	Australian Geographical Studies
CLB114	Geography in the Field

### Geography- Semester 2

CLB109	World Regions
CLB110	Environment and Society
CLB111	Environmental Hazards
CLB114	Geography in the Field

## History

### History- Semester 1

CLB101	Australian Society and Culture
CLB102	Australian Historical Studies
CLB103	Interpreting the Past
CLB104	Colonialism and Independence in Asia-Pacific
CLB105	Australia and the South Pacific
CLB106	Modern China
CLB107	The Classical World
CLB108	Nations and Nationalism in Modern Europe

### History- Semester 2

CLB101	Australian Society and Culture
CLB102	Australian Historical Studies
CLB104	Colonialism and Independence in Asia-Pacific
CLB105	Australia and the South Pacific
CLB107	The Classical World

## Human Movement Studies

### Human Movement Studies- Semester 1

HMB171	Fitness Health and Wellness
HMB305	Personal Health
HMB314	Alternative Physical Education
HMB338	Wellness Processes and Strategies

### Human Movement Studies- Semester 2

HMB172	Nutrition and Physical Activity
HMB278	Foundations of Movement for Educators
HMB315	Games Based Learning in Physical Activity and Sport
HMB333	Child and Adolescent Health

## Indigenous Studies

### Indigenous Studies- Semester 1

EDB038	Indigenous Australian Culture Studies
EDB039	Indigenous Politics and Political Culture
EDB040	Indigenous Knowledge: Research Ethics and Protocols

### Indigenous Studies- Semester 2

EDB039	Indigenous Politics and Political Culture
EDB040	Indigenous Knowledge: Research Ethics and Protocols

## Information Technology

### Information Technology- Semester 1

INB101	Impact of IT
INB102	Emerging Technology
INB104	Building IT Systems
INB271	The Web
INB300	Professional Practice in IT
INB301	The Business of IT
INB335	Information Resources
INB345	Mobile Devices
INB347	Web 2.0 Applications
INB385	Multimedia Systems
INB860	Computational Intelligence for Control and Embedded Systems

### Information Technology- Semester 2

INB101	Impact of IT
INB102	Emerging Technology
INB104	Building IT Systems
INB250	Foundations of Computer Science
INB271	The Web
INB300	Professional Practice in IT
INB301	The Business of IT
INB335	Information Resources
INB346	Enterprise 2.0
INB386	Advanced Multimedia Systems

## Interactive and Visual Design/Animation

### Interactive and Visual Design/Animation- Semester 1

KIB101	Visual Communication
KIB103	Introduction to Web Design and Development
KIB104	Digital Media



KIB108	Animation History and Practices
KIB203	Introduction to 3D Computer Graphics
KVB105	Drawing for Design

## Interactive and Visual Design/Animation- Semester 2

KIB101	Visual Communication
KIB104	Digital Media
KIB105	Animation and Motion Graphics

## Journalism

### Journalism- Semester 1

KJB101	Digital Journalism
KJB120	Newsriting
KJB239	Journalism Ethics and Issues

### Journalism- Semester 2

KJB101	Digital Journalism
KJB120	Newsriting
KKB175	Creative Industries Legal Issues

## Justice Studies

### Justice Studies- Semester 1

JSB171	Justice and Society
JSB172	Professional Criminological Research Skills
JSB175	Social Ethics and the Justice System
JSB272	Theories of Crime
JSB273	Crime Research Methods
JSB274	Policing in Context
JSB371	Indigenous Justice
JSB373	Punishment and Penal Policy
JSB415	Advanced Research Management
JSB971	Gender Crime and the Criminal Justice System

### Justice Studies- Semester 2

JSB174	Forensic Psychology and the Law
JSB271	Policy Governance and Justice
JSB374	Crime Prevention
JSB376	Information Management and Analysis
JSB377	Intelligence and Security

## Law

### Law- Semester 1

LWB145	Legal Foundations A
LWB146	Legal Foundations B
LWB142	Law, Society and Justice

### Law- Semester 2

LWB145	Legal Foundations A
LWB146	Legal Foundations B

LWB144	Laws and Global Perspectives
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## Literary and Cultural Studies

### Literary and Cultural Studies- Semester 1

KWB208	Modern Times (Literature and Culture in the 20th Century)
KWB209	Shakespeare, Then and Now

### Literary and Cultural Studies- Semester 2

KWB108	Introduction To Literary Studies
KWB109	Writing Australia

## Management and International Business

### Management and International Business- Semester 1

MGB207	Human Resource Issues and Strategy
MGB223	Entrepreneurship and Innovation
MGB225	Intercultural Communication and Negotiation Skills
BSB115	Management
BSB119	Global Business
AMB210	Importing and Exporting

### Management and International Business- Semester 2

MGB207	Human Resource Issues and Strategy
MGB223	Entrepreneurship and Innovation
MGB225	Intercultural Communication and Negotiation Skills
BSB115	Management
BSB119	Global Business
AMB210	Importing and Exporting

## Media and Communication

### Media and Communication- Semester 1

KCB101	Introduction to Media and Communication: Texts
KCB102	Media Myth Busting 1
KCB103	Strategic Speech Communication
KCB110	Introduction to Mass Communication
KCB203	Consumption Matters: Consumer Cultures and Identity
KCB205	Professional Communication

### Media and Communication- Semester 2

KCB101	Introduction to Media and Communication: Texts
KCB103	Strategic Speech Communication
KCB104	Media and Communications: Industries
KCB105	Media Myth Busting 2
KCB202	New Media 2: Applications and Implications
KCB203	Consumption Matters: Consumer Cultures and Identity

KCB205 Professional Communication

### **Music and Sound Studies**

#### **Music and Sound Studies- Semester 1**

KMB003 Sex Drugs Rock 'N' Roll  
KMB004 World Music  
KMB119 Music and Sound Production 1  
KMB122 Music and Sound Concepts 1  
KMB200 Music Scenes and Subcultures

#### **Music and Sound Studies- Semester 2**

KMB107 Sound, Image, Text

### **Network Systems**

#### **Network Systems- Semester 1**

INB251 Networks  
INB255 Security  
INB312 Enterprise Systems Applications  
INB350 Internet Protocols and Services  
INB353 Wireless and Mobile Networks  
INB355 Cryptology and Protocols

#### **Network Systems- Semester 2**

INB251 Networks  
INB351 Unix Network Administration  
INB352 Network Planning  
INB365 Systems Programming

### **Psychology and Counselling**

#### **Psychology and Counselling- Semester 1**

PYB000 Psychology in Professional Contexts  
PYB007 Interpersonal Processes and Skills  
PYB012 Psychology  
PYB100 Foundation Psychology  
PYB054 Psychology and Gender

#### **Psychology and Counselling- Semester 2**

PYB007 Interpersonal Processes and Skills  
PYB067 Human Sexuality  
PYB012 Psychology  
PYB100 Foundation Psychology  
PYB110 Psychological Research Methods  
PYB102 Introduction to Psychology 1B  
PYB203 Developmental Psychology

### **Public Health**

#### **Public Health- Semester 1**

PUB104 Australian Health Care Systems  
PUB105 Family Influences on Health and Development

PUB113 Design and Technology  
PUB251 Contemporary Public Health  
PUB332 Sustainable Environments For Health  
PUB474 Food Science  
PUB514 Contract/Project Management

#### **Public Health- Semester 2**

PUB201 Food and Nutrition  
PUB209 Health, Culture and Society  
PUB251 Contemporary Public Health  
PUB321 Textile Studies  
PUB355 Hospitality Studies  
PUB336 Women's Health  
PUB480 Health Administration Finance  
PUB609 Health Resource Allocation  
PUB611 Risk Management

### **Science and Mathematics**

#### **Science and Mathematics- Semester 1**

SCB112 Cellular Basis of Life  
SCB110 Science Concepts and Global Systems  
SCB111 Chemistry 1  
SCB121 Chemistry 2  
MAB101 Statistical Data Analysis 1  
MAB105 Preparatory Mathematics  
MAB210 Statistical Modelling 1  
MAB120 Algebra and Calculus  
MAB121 Calculus and Differential Equations  
MAB122 Algebra and Analytic Geometry  
MAB125 Foundations of Engineering Mathematics  
MAB126 Mathematics for Engineering 1  
MAB127 Mathematics for Engineering 2

#### **Science and Mathematics- Semester 2**

SCB112 Cellular Basis of Life  
NQB201 Planet Earth  
NQB202 History of Life on Earth  
SCB123 Physical Science Applications  
SCB111 Chemistry 1  
SCB121 Chemistry 2  
MAB101 Statistical Data Analysis 1  
MAB105 Preparatory Mathematics  
MAB210 Statistical Modelling 1  
MAB120 Algebra and Calculus  
MAB121 Calculus and Differential Equations  
MAB122 Algebra and Analytic Geometry  
MAB125 Foundations of Engineering Mathematics  
MAB126 Mathematics for Engineering 1

MAB127 Mathematics for Engineering 2

### **Social Work and Human Services**

#### **Social Work and Human Services- Semester 1**

SWB100 Introduction to Human Services and Social Work

SWB102 The Human Condition

SWB105 Introduction to Human Rights and Ethics

SWB106 Applied Skills and Scholarship

SWB212 Community Work

SWB221 Social Work Processes and Methods

SWB223 People, Society and Social Work

SWB312 International Social Work

#### **Social Work and Human Services- Semester 2**

SWB103 Contemporary Social and Community Issues

SWB105 Introduction to Human Rights and Ethics

SWB106 Applied Skills and Scholarship

SWB200 Working in Human Service Organisations

SWB204 Child and Family Services: Introduction

SWB206 Disability Services: Introduction

SWB207 Services to Young People: Introduction

SWB211 Casework and Case Management

SWB214 Team Practice and Group Processes

SWB216 The Human Dimensions of Space

SWB218 Social Change, Politics, Policy and Activism

SWB219 Ethical and Legal Dimensions of Human Services and Social Work

SWB300 Current Developments in Human Services

SWB302 Social Policy Processes

### **Software Architecture**

#### **Software Architecture- Semester 1**

INB270 Programming

INB312 Enterprise Systems Applications

INB321 Business Process Management

INB322 Information Systems Consulting

INB340 Database Design

INB370 Software Development

INB371 Data Structures and Algorithms

INB373 Web Application Development

INB381 Modelling and Animation Techniques

#### **Software Architecture- Semester 2**

INB210 Databases

INB270 Programming

INB272 Interaction Design

INB311 Enterprise Systems

INB313 Electronic Commerce Site Development

INB320 Business Process Modelling

INB341 Software Development With Oracle

INB372 Agile Software Development

INB374 Enterprise Software Architecture

INB382 Real Time Rendering Techniques

### **Urban Development**

#### **Urban Development- Semester 1**

UDB101 Stewardship of Land

UDB110 Residential Construction and Engineering

UDB111 Engineering Construction Materials

UDB140 Property Valuation 1

UDB161 Introduction to Planning and Design

UDB162 History of Built Environment

UDB181 Geospatial Positioning and GPS

UDB210 Commercial Construction and Engineering

UDB211 Introductory Structural Engineering

UDB213 Construction Estimating

UDB216 The Environment and the Quantity Surveyor

UDB240 Planning Theory and Processes

UDB241 Property Law 1

UDB242 Property Valuation 2

UDB243 Property Economics

UDB265 Site Planning

UDB266 Planning Processes and Consultations

UDB281 Geographic Information Systems

UDB283 Surveying Computations

UDB285 Cadastral Surveying

UDB310 Highrise Construction and Engineering

UDB311 Structural Engineering Design

UDB312 Contract Administration

UDB313 Programming and Scheduling

UDB340 Agency Practice and Marketing

UDB341 Property Finance

UDB342 Real Estate Accounting and Taxation

UDB368 Urban Design

UDB381 Geospatial Mapping

UDB383 Control Surveying and Analysis

UDB385 Cadastral and Land Management

UDB387 Spatial and Land Information Management

UDB471 Urban Planning Practice

UDB473 Planning Theory and Ethics

UDB483 Global Positioning Principles and Practice

UDB485 Property Development Practice

#### **Urban Development- Semester 2**

UDB102 Applied Law

UDB104 Urban Development Economics

UDB112	Professional Studies 1
UDB113	Measurement 1
UDB141	Building Studies
UDB163	Land Use Planning
UDB164	Population and Urban Studies
UDB182	Surveying
UDB202	Business Skills
UDB212	Measurement 2
UDB214	Professional Studies 2
UDB215	Building Services Engineering
UDB244	Property Law 2
UDB245	Urban Land Studies
UDB246	Property Feasibility Studies
UDB267	Development Assessment and Infrastructure
UDB282	Remote Sensing
UDB284	Engineering Surveying
UDB314	Statutory Construction Law
UDB316	Cost Planning and Control
UDB344	Property and Asset Management
UDB370	Environmental Planning and Management
UDB382	Photogrammetric Mapping
UDB384	Geodesy
UDB388	Spatial Analysis Practice
UDB472	Community Planning
UDB474	Regional Planning Practice
UDB475	Regional and Metropolitan Policy
UDB484	Topographic, Hydrographic and Mining Surveying
UDB486	Cadastral Practice

### **Visual Arts**

#### **Visual Arts- Semester 1**

KVB102	Modernism
KVB104	Photomedia and Artistic Practice
KVB105	Drawing for Design
KVB110	2D Media and Processes
KVB200	Exhibition and Display in the Visual Arts
KVB212	Australian Art, Architecture and Design
KVB213	Graphic Investigation

#### **Visual Arts- Semester 2**

KVB103	Australian Art
KVB104	Photomedia and Artistic Practice
KVB108	Contemporary Asian Visual Culture
KVB211	Post 1945 Art