

# 2009 Course Summary Sheet

## ■ Bachelor of Information Technology /Bachelor of Mathematics (IX29)

This document will assist you with the selection of your study program and completion of your enrolment. Other useful information can be found on the Student Services website [studentservices.qut.edu.au/](http://studentservices.qut.edu.au/), which can also be accessed via the Online Enrolment portlet.

Location: Gardens Point campus

Course Duration: 4 years full-time

Total Credit Points: 384

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Associate Course Coordinators: *Information Technology*: Mr Richard Thomas, Phone 07 3138 2782, Fax 07 3138 2703, Room S509 Gardens Point, Email [fit.enquiry@qut.edu.au](mailto:fit.enquiry@qut.edu.au)

**Important Note:** Please ensure you select the correct teaching period, class and location code for all units you are enrolled in. All units in this course have a location of Gardens Point and a class of Internal.

### Course Information - Information Technology Component

Commencing students will be asked to nominate their IT major online, before adding units to their enrolment program. Students select the major from a drop down list at the Enrolment portlet on QUT Virtual. Students who are uncertain of their choice of major at this stage should contact the Course Coordinator, Associate Professor Ms Ruth Christie.

### IT Majors Continuing Students Only (page 5)

Students select 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)

### Cooperative Education Program

An optional one-year period of paid work experience is available to eligible full-time students. Students participating in this program enrol in INB300 Professional Practice in IT in the first semester of the program and in INB302 IT Capstone 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 Information Technology, subject to meeting eligibility criteria. Further information about this option is available from Student Services, Level 5, S Block, Gardens Point campus or see the unit outline for INB300.

### Translation Table

Unit Incompatibility/Translation Information

Details on the translation and incompatibility of old and new units is located at the below link

[http://www.studentservices.qut.edu.au/pdfs/IT\\_ug\\_translation\\_table.pdf](http://www.studentservices.qut.edu.au/pdfs/IT_ug_translation_table.pdf)

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

**Limits on grades of 3:** A new policy concerning grades of 3 comes into effect from 1 January 2009 (QUT MOPP C/9.2). With effect from this date grades of 3 will no longer be considered a conceded or low pass but will be classified as a fail grade. Any grades of 3 awarded prior to 1 January 2009 will 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. The maximum number of pre-2009 grades of 3 permitted for this course can be found [here](#).

## COURSE STRUCTURE

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

<b>Full-time Course Structure</b>	<b>Credit Points</b>	<b>Contact Hrs/Wk</b>	<b>Semester Offered</b>
<b>Year 1, Semester 1</b>			
INB103 Industry Insights	12	4	1,2
INB251 Networks	12	3	1,2
MAB111 Mathematical Sciences 1B	12	4	1,2
MAB112 Mathematical Sciences 1C	12	4	1,2
<b>Year 1, Semester 2</b>			
INB210 Databases	12	3	2
INB250 Computer Architecture and Systems	12	3	2
MAB210 Statistical Modelling 1 ( <i>coreqs: MAB111, MAB112</i> )	12	4	1,2
MAB220 Computational Mathematics 1	12	4	1,2
<b>Year 2, Semester 1</b>			
INB104 Building IT Systems	12	3	1,2
Intermediate Level IT Elective	12	3	1,2
MAB101 Statistical Data Analysis 1	12	4	1,2,SUM-2
MAB312 Linear Algebra ( <i>MAB111, MAB112</i> )	12	4	1
<b>Year 2, Semester 2</b>			
INB270 Programming	12	3	1,2
INB271 The Web	12	3	1,2
Level 2 or 3 Maths unit	12	4	
Level 2 or 3 Maths unit	12	4	
<b>Year 3, Semester 1</b>			
IT Major Unit			
IT Major Unit			
MAB311 Advanced Calculus ( <i>MAB111, MAB112</i> )	12	4	1
Level 2 or 3 Maths unit	12	4	
<b>Year 3, Semester 2</b>			
INB301 The Business of IT	12	3	1,2
IT Major Unit			
Level 2 or 3 Maths unit	12	4	
Level 2 or 3 Maths unit	12	4	
<b>Year 4, Semester 1</b>			
INB302 IT Capstone Project	2	3	1,2
IT Major Unit			
Level 2 or 3 Maths unit	12	4	
Level 2 or 3 Maths unit	12	4	
<b>Year 4, Semester 2</b>			
IT Major Unit			
IT Major Unit			
Level 2 or 3 Maths unit	12	4	
Level 2 or 3 Maths unit	12	4	



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

**Full-time Course Structure**

	<b>Credit Points</b>	<b>Contact Hrs/Wk</b>	<b>Semester Offered</b>
<b>Year 1, Semester 1</b>			
INB103 Industry Insights	12	4	1,2
INB251 Networks	12	3	1,2
MAB100 Mathematical Sciences 1A	12	4	1,2,SUM
MAB101 Statistical Data Analysis 1	12	4	1,2,SUM-2
<b>Year 1, Semester 2</b>			
INB210 Databases	12	3	2
INB250 Computer Architecture and Systems	12	3	2
MAB111 Mathematical Sciences 1B ( <i>MAB100 or Senior Maths C</i> )	12	4	1,2
MAB112 Mathematical Sciences 1C ( <i>coreq: MAB111</i> )	12	4	1,2
<b>Year 2, Semester 1</b>			
INB104 Building IT Systems	12	3	1,2
Intermediate Level IT Elective	12	3	1,2
MAB220 Computational Mathematics 1	12	4	1,2
MAB312 Linear Algebra ( <i>MAB111, MAB112</i> )	12	4	1
<b>Year 2, Semester 2</b>			
INB270 Programming	12	3	1,2
INB271 The Web	12	3	1,2
MAB210 Statistical Modelling 1 ( <i>coreqs: MAB111, MAB112</i> )	12	4	1,2
Level 2 or 3 Maths unit	12	4	
<b>Year 3, Semester 1</b>			
IT Major Unit			
IT Major Unit			
MAB311 Advanced Calculus ( <i>MAB111, MAB112</i> )	12	4	1
Level 2 or 3 Maths unit	12	4	
<b>Year 3, Semester 2</b>			
INB301 The Business of IT	12	3	1,2
IT Major Unit			
Level 2 or 3 Maths unit	12	4	
Level 2 or 3 Maths unit	12	4	
<b>Year 4, Semester 1</b>			
INB302 IT Capstone Project	12	3	1,2
IT Major Unit			
Level 2 or 3 Maths unit	12	4	
Level 2 or 3 Maths unit	12	4	
<b>Year 4, Semester 2</b>			
IT Major Unit			
IT Major Unit			
Level 2 or 3 Maths unit	12	4	
Level 2 or 3 Maths unit	12	4	

## Mathematics Units

Students must complete at least 48 credit points from Level 3 mathematics units. MAB311 and MAB312 are mandatory units.

Unit Code	Unit Title	Credit Points	Prerequisite	Availability
Level 2 Units				
MAB311	Advanced Calculus	12	MAB111, MAB112	1
MAB312	Linear Algebra	12	MAB111, MAB112,	1
MAB313	Mathematics of Finance	12	Corequisite MAB111	2
MAB314	Statistical Modelling 2	12	MAB112, MAB210	1
MAB315	Operations Research 2	12	MAB112, MAB210	1
MAB413	Differential Equations	12	MAB311 or MAB312	2
MAB414	Applied Statistics 2	12	MAB101, MAB111	2
MAB420	Computational Mathematics 2	12	MAB220, MAB312	2
MAB422	Mathematical Modelling	12	MAB111, MAB112	2
MAB461	Discrete Mathematics	12	MAB112	2
MAB480	Introduction to Scientific Computation	12	MAB112, recommended MAB210 or MAB220	2
MAB481	Visualisation and Data Analysis	12	MAB101, MAB111, MAB480 or INB270, recommended MAB112	1 Not offered after 2009
Level 3 Units – at least 4 units must be selected				
MAB521	Applied Mathematics	12	MAB311	1
MAB522	Computational Mathematics 3	12	MAB311, MAB420	1
MAB524	Statistical Inference	12	MAB314	2
MAB525	Operations Research 3A	12	MAB315	1
MAB533	Statistical Techniques	12	MAB210, MAB414	1
MAB536	Time Series Analysis	12	MAB101, MAB314	1
MAB613	Partial Differential Equations	12	MAB311, MAB413	2
MAB623	Financial Mathematics	12	MAB313, MAB311, recommended EFB210	2
MAB624	Applied Statistics 3	12	MAB314, MAB414	2
MAB625	Operations Research 3B	12	MAB315	2
MAB640	Industry Project	24	Permission from unit coordinator, coreq: at least 36 cps of Level 3 maths units	2
MAB672	Advanced Mathematical Modelling		MAB312, MAB422, recommended MAB413	1
MAB681	Advanced Visualisation and Data Analysis	12	MAB481, recommended MAB480	2 Not offered after 2009

*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.*

Note: All Mathematics units have 4 contact hours per week

## FACULTY OF INFORMATION TECHNOLOGY MAJORS

### **BUSINESS SYSTEMS ENGINEERING MAJOR (BSE) – BLOCK B**

Gardens Point campus – 6 units required

Core (3 units)			
Unit Code	Unit Title	Prerequisite/s	Semester Availability
INB311	Enterprise Systems	INB103	2
INB320	Business Process Modelling	INB311	2
INB335	Information Resources	Nil	1
Electives (3 units)			
INB341	Software Development with ORACLE	INB270 & INB210	2
INB306	Project 1	INB301 or completion of 144 cps	1, 2
INB312	Enterprises Systems Applications	INB103	1
INB322	Information Systems Consulting	INB103	1

### **DATABASES MAJOR (DTB) – BLOCK B**

Gardens Point campus – 6 units required

Core (3 units)			
Unit Code	Unit Title	Prerequisites	Semester Availability
INB340	Database Design	INB210	1
INB342	Enterprise Data Mining and Data Analysis	INB210	2
INB343	Advanced Data Mining and Data Warehousing	INB342	2
Electives (3 units)			
INB341	Software Development with ORACLE	INB270 & INB210	2
INB306	Project 1	INB301 or completion of 144 cps	1, 2
INB313	E-Commerce Site Development	INB271	2
INB335	Information Resources	Nil	1

### **ELECTRONIC BUSINESS MAJOR (EBI) – BLOCK B**

Gardens Point campus – 6 units required

Unit Code	Unit Title	Prerequisites	Semester Availability
INB312	Enterprise Systems Applications	INB103	1
INB342	Enterprise Data Mining and Data Analysis	INB210	2
INB313	E-Commerce Site Development	INB271	2
BSB212	Electronic Business Applications	Nil	1
BSB213	Legal issues in E-Business	Nil	2
BSB314	E-Business Intelligence	Nil	1

## **GAMES TECHNOLOGY MAJOR (GAM) – BLOCK B**

Gardens Point campus – 6 units required

Unit Code	Unit Title	Prerequisites	Semester Availability
INB371	Data Structures and Algorithms	INB270	1
INB304	Special Topic 3	INB270	1
INB381	Modelling & Animation Techniques	INB371 & MAB281	1
INB382	Real Time Rendering Techniques	INB381	2
INB370	Software Development	INB270	1
MAB281	Mathematics for Computer Graphics	SA in Senior Mathematics B or MAB105	2

## **INFORMATION AND KNOWLEDGE MANAGEMENT MAJOR (ITK) – BLOCK B**

If you are already enrolled in this major, or seeking to enrol, please contact the Course Coordinator for advice.

## **INFORMATION SYSTEMS MAJOR (ISY) – BLOCK B**

Gardens Point campus – 6 units required

Core (3 units)			
Unit Code	Unit Title	Prerequisites	Semester Availability
INB311	Enterprise Systems	INB103	2
INB340	Database Design	INB210	1
INB313	E-Commerce Site Development	INB271	2
Electives (3 units)			
INB341	Software Development with ORACLE	INB270 & INB210	2
INB306	Project 1	INB301 or completion of 144 cps	1, 2
INB312	Enterprises Systems Applications	INB103	1
INB322	Information Systems Consulting	INB103	1
INB335	Information Resources	Nil	1

## **INFORMATION TECHNOLOGY MANAGEMENT MAJOR (IMG) – BLOCK B**

Gardens Point campus – 6 units required:

Core (3 units)			
Unit Code	Unit Title	Prerequisites	Semester Availability
INB221	Technology Management	INB103	1
INB322	Information Systems Consulting	INB103	2
INB335	Information Resources	Nil	1
Electives (3 units)			
INB340	Database Design	INB270	1
INB341	Software Development with ORACLE	INB270 & INB210	2
INB311	Enterprise Systems	INB103	2
INB306	Project 1	INB301 or completion of 144 cps	1, 2

## INTELLIGENT SYSTEMS MAJOR (ITS) – BLOCK B

Gardens Point campus – 6 units required

Unit Code	Unit Title	Prerequisites	Semester Availability
INB342	Enterprise Data Mining and Data Analysis	INB210	2
INB335	Information Resources	Nil	1
INB371	Data Structures and Algorithms	INB270	1
INB860	Computational Intelligence for Control & Embedded Systems	Nil	1
INB304	Special Topic 3	INB270	1,2
	IT Elective		

## INTERACTIVE MEDIA MAJOR (IAM) – BLOCK B

Gardens Point campus – 6 units required

Core (5 units)			
Unit Code	Unit Title	Prerequisites	Semester Availability
INB272	Interaction Design	INB271	2
INB385	Multimedia Systems	INB271	1
INB386	Advanced Multimedia Systems	INB385 or INB272	2
KIB101*	Foundations of Communication Design 1	Nil	1
KIB102*	Foundations of Communication Design 2	KIB101	2
Electives (1 unit)			
KIB103*	Media Technology 1	Nil	1
KIB105*	Animation and Motion Graphics	See Unit Outline	2
KIB108*	Animation Practices	Nil	1

\* Only students enrolled in the IAM major may enrol in these units without the approval of the Creative Industries Faculty.

## NETWORK SYSTEMS MAJOR (NET) – BLOCK B

Gardens Point campus – 6 units required

Unit Code	Unit Title	Prerequisites	Semester Availability
INB350	Internet Protocols & Services	INB251	1
INB351	Unix Network Administration	INB251	2
INB352	Network Planning	INB350	2
INB365	Systems Programming	INB270	2
INB353	Wireless & Mobile Networks	Co-requisite INB350	1
	IT Elective		

IT Elective Units

[http://www.studentservices.qut.edu.au/pdfs/IT\\_elective\\_list.pdf](http://www.studentservices.qut.edu.au/pdfs/IT_elective_list.pdf)

**SECURITY MAJOR (SEC) – BLOCK B**

Gardens Point campus – 6 units required

Unit Code	Unit Title	Prerequisites	Semester Availability
INB350	Internet Protocols & Services	INB251	1
INB351	Unix Network Administration	INB251	2
INB255	Security		1
INB355	Cryptology & Protocols	Senior Mathematics B or equivalent*	1
	IT elective		
	IT elective		

\* Equivalent unit: MAB105 Preparatory Mathematics

**SOFTWARE ARCHITECTURE MAJOR (SOA) – BLOCK B**

Gardens Point campus – 6 units required

Unit Code	Unit Title	Prerequisites	Semester Availability
INB340	Database Design	INB210	1
INB371	Data Structures and Algorithms	INB270	1
INB372	Agile Software Development	INB370	2
INB370	Software Development	INB270	1
INB374	Enterprise Software Architecture	INB270 & INB250	2
	IT Elective		

**WEB SERVICES AND APPLICATIONS MAJOR (WSA) – BLOCK B**

Gardens Point campus – 6 units required

Unit Code	Unit Title	Prerequisites	Semester Availability
INB373	Web Application Development	INB271	1
INB374	Enterprise Software Architecture	INB270 & INB250	2
INB272	Interaction Design	INB104	1
INB313	E-Commerce Site Development	INB271	2
Choose 1 of the following			
INB371	Data Structures and Algorithms	INB270	1
INB372	Agile Software Development	INB370	2
INB350	Internet Protocols and Services	INB251	1
INB255	Security		1
Electives (1units)			
	IT Elective		

IT Elective Units

[http://www.studentservices.qut.edu.au/pdfs/IT\\_elective\\_list.pdf](http://www.studentservices.qut.edu.au/pdfs/IT_elective_list.pdf)