FACULTY OF INFORMATION TECHNOLOGY

Courses

FACULTY OF INFORMATION TECHNOLOGY

Information for all Information Technology students

Rules and regulations

Students undertaking courses in the Faculty of Information Technology should acquaint themselves with Faculty policy on assessment, deferred examinations, and plagiarism in programming assignments. In many cases, Faculty policy is more explicit than University policy. Students should make sure they obtain a copy of the Faculty's Student Information Booklet, which is distributed at the beginning of each semester.

Faculty policy regarding use of University computer facilities

Access to computer accounts, E-mail, and bulletin board facilities via QUT equipment is provided solely to assist students in education and research. Use of such facilities by students for matters unrelated to their course of study or approved research represents misuse. Any misuse may result in fines, suspension of use of computer accounts, and/or strict disciplinary action. Students will be required to sign a code of conduct on the use of these facilities.

■ Master of Applied Science (Research) (IT84)

See entry under University-wide and Interfaculty Courses.

Location: Gardens Point campus

Course Duration: 2 years full-time, 4 years part-time

Total Credit Points: 192

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Associate Professor George Mohay

The units below have been devised to represent the EFTSU (Effective Full-Time Student Unit) and attendance type of graduate research students.

Students should enrol in the relevant Masters Research units in **each** semester of their masters enrolment. At the end of each semester, results in those units will be shown as T – Assessment Continues. A final grade (Satisfactory/Unsatisfactory) will be given once the thesis has been examined according to the degree rules.

Students may also be required to undertake some coursework early in their degree. These coursework units will be assessed in the normal manner at the end of semester.

Full-Time Course Structure		**Credit Points**
Full-time students will enrol in:		
IFN100	Full-Time Masters Research	48

unless they are candidates who either:

(i) have exceeded the normal course duration and an extension of time has been approved, in which case they will enrol in

IFN101	Full-time Masters Research (extension)	48

OR

(ii) are required to enrol in coursework units in addition to their research, in which case they may be required to enrol in one of the following units, so that their semester enrolment totals as close as possible 48 credit points:

IFN300	Masters Research	36
IFN301	Masters Research	24
IFN302	Masters Research	12
IFN303	Masters Research	8

Part-Time Course Structure

Part-time students will enrol in:

IFN200	Part-Time Masters Research	24

unless they are candidates who either:

(i) have exeeded the normal course duration and an extension of time has been approved, in which case they will enrol in

IFN201	Part-time Masters Research (extension)	24

OR

(ii) are required to enrol in coursework units in addition to their research, in which case they may be required to enrol in one of the following units, so that their semester enrolment totals as close as possible 24 credit points:

IFN302	Masters Research	12
IFN303	Masters Research	8

Master of Applied Science (Computing) (CS36)

Location: Gardens Point campus

Course Duration: 2 years full-time, 4 years part-time

Total Credit Points: 192

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Dr Shlomo Geva

Entry Requirements

Applicants are required to have completed a degree level course which contains a major component in computing or, alternatively, a degree course in any discipline area followed by a graduate diploma level course in computing. The minimum level of performance expected within prerequisite studies is a grade point average (GPA) of 4.5 on a 7 point scale (or its equivalent). Selection may be determined on an individual basis and is subject to the approval of the course coordinator.

Students may be eligible for exemptions on the basis of equivalent units completed in earlier studies. However, students who gain entry to the course on the basis of postgraduate qualifications may not claim exemptions for those qualifications. Students who have completed a suitable honours degree or who have completed a masters qualifying program may be exempted up to 96 credit points, that is, half of the total credit points of the course. The granting of any exemption is subject to the approval of the course coordinator.

The course structure comprises core, project and elective unit components. The student intake is heterogeneous and some students may need to undertake advanced undergraduate units as prerequisites for core units. A maximum of 48 credit points from these undergraduate prerequisites may be credited towards completion of the course.

Course Structure **Core Units**		**Credit Points**	**Contact Hrs/Wk**

The core component comprises five units (60 credit points) and for students with all necessary prerequisite qualifications these units are undertaken in the first two semesters of the full-time course (or the part-time equivalent). The five mandatory units are:

CSN100	Theory of Computing 1	12	3
CSN110	Compiler Construction	12	3
CSN210	Distributed Systems	12	3
CSN220	Artificial Intelligence	12	3
ISN100	Information Systems 1	12	3

Project Units

The project component comprises four to six semester units (48-72 credit points) depending upon student choice. CSN450 (a two-semester project) must be included in this component.

CSN301	Minor Project	12
CSN302	Minor Project	12
CSN303	Minor Project	12
CSN304	Minor Project	12
CSN450	Major Project	24

Elective Units

The number of elective units taken by an individual student depends upon the number of prerequisite units undertaken and the number of projects selected. A minimum of two elective units (24 credit points) must be selected and a maximum of seven (84 credit points) may be selected. The offering of elective units in any semester depends on sufficient minimum enrolments in the unit and the availability of staff. The choice of all elective units is subject to the approval of the relevant course coordinator.

FIRST SEMESTER ELECTIVE UNITS

CSN340	Compiler Laboratory	12	3
CSN350	Advanced Graphics 1	12	3
CSN380	Neural Networks	12	3
ISN300	Information Systems 2	12	3
ITN541	Computer Security	12	3
ITN542	Advanced Data Communications	12	3

SECOND SEMESTER ELECTIVE UNITS

CSN300	Theory of Computing 2	12	3
CSN310	Parallel Processing	12	3
CSN360	Advanced Graphics 2	12	3
CSN370	Special Topic	12	3

Full-Time Course Structure

Full-time study programs should be discussed with and approved by the course coordinator. Not all units are offered during the day. Full-time students may be required to attend a number of evening classes.

Part-Time Course Structure Suggested Sequence		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
CSN210	Distributed Systems	12	3
	Elective Unit	12	3
Year 1, Semester 2			
CSN110	Compiler Construction	12	3
ISN100	Information Systems 1	12	3
Year 2, Semester 1			
CSN220	Artificial Intelligence	12	3
	Elective Unit	12	3
Year 2, Semester 2			
CSN100	Theory of Computing 1	12	3
	Elective Unit	12	3
Year 3, Semester 1			
CSN301	Minor Project	12	
	Elective Unit	12	3
Year 3, Semester 2			
CSN302	Minor Project	12	
	Elective Unit	12	3
Year 4, Semester 1			
CSN450/1	Major Project	12	
	Elective Unit	12	3
Year 4, Semester 2			
CSN450/2	Major Project	12	
	Elective Unit	12	3

Note: The four university participants in the Distributed Systems Technology Centre (QUT, Griffith University, Bond University and the University of Queensland) have agreed on a common content for a masters degree in distributed systems technology. It is possible to choose a course program and elective units in CS36 which conform with this common content. Students interested in this program should consult with the course coordinator. This program will include elective units taken at the other institutions.

■ Master of Information Technology (IS50)

Location: Gardens Point campus

Course Duration: 2 years full-time, or 4 years part-time

Total Credit Points: 192

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Ms Alison Anderson

Entry Requirements

Applicants are required to have completed a degree level course which contains a major component in computing, or alternatively, a degree course in any discipline area followed by a graduate diploma level course in computing or library science. The minimum level of performance expected within prerequisite studies is a grade point average (GPA) of

5.0 on a 7 point grading scale (or its equivalent). Graduates of library science courses will have completed ITP201 Foundations of Information Modelling (or its equivalent) prior to registration in the course. Selection may be determined on an individual basis and is subject to the approval of the course coordinator.

Students may be eligible for exemptions on the basis of equivalent units completed in earlier studies. Those students who have completed a suitable honours degree or who have completed a masters qualifying program may be exempted up to 96 credit points. The granting of any exemption is subject to the approval of the course coordinator.

Course Structure

The course structure comprises core, project and elective unit components. The student intake is heterogeneous and some students may need to undertake advanced undergraduate units which are prerequisites for core units. A maximum of 48 credit points from these undergraduate prerequisites may be credited towards completion of the course.

Core Units

The core component comprises two units (24 credit points). For students with all necessary prerequisite qualifications, these units are undertaken in the first semester of the course.

ISN200	Major Issues in Information Technology	12	3
ISN201	Research Methodology	12	3

Project Units

The project component comprises 48-96 credit points, depending upon student choice: four minor projects (12 credit points each), one minor project per semester; or a major project (48 credit points), to be completed within the last two semesters of the full-time course or the last four semesters of the part-time course; or a dissertation (96 credit points), to be completed within the last two semesters of the full-time course or the last four semesters of the part-time course.

ISN301	Minor Project	12
ISN302	Minor Project	12
ISN303	Minor Project	12
ISN304	Minor Project	12
	OR	

for full-time students:

ISN401	Major Project	48
	OR	
ISN500	Dissertation	96

for part-time studeuts:

ITN296	Major Project	48
	OR	
ITN298	Dissertation	96

Elective Units

The number of elective units taken by a student depends upon the number of prerequisite units undertaken and the number of project units selected. A minimum of six elective units (72 credit points) must be selected and a maximum of 10 (120 credit points) may be selected. Electives may be chosen from the following list or from any appropriate masters level units within the Faculty or University. The offering of elective units in any semester depends on sufficient minimum enrolments in the unit and the availability of staff. The choice of all elective units is subject to the approval of the course coordinator.

FIRST SEMESTER ELECTIVE UNITS

ISN110	Formal Systems Specification	12	3
ISN130	Object-Oriented Systems	12	3
ISN170	Special Studies	12	3
ISN180	Human Computer Interface	12	3
ISN190	Comparative Study of Information Agencies	12	3
ISN210	Automated Systems Management	12	3
ISN240	Classification	12	3

SECOND SEMESTER ELECTIVE UNITS

ISN100	Information Systems 1	12	3
ISN160	Knowledge-Based Systems	12	3
ISN170	Special Studies	12	3
ISN220	Business Competitor Intelligence	12	3
ISN250	The Information Industries*	12	3
ISN260	Evaluation of Information Services & Organisations	12	3
ISN270	Social Impacts of Information Technology	12	3
ISN280	Organisations, Systems & Information	12	3
ISN290	Current Advances in Database Technology	12	3
ISN320	Distributed Database Systems	12	3
ITN240	Computer Security Risk Modelling	12	3

Full-Time Course Structure

Full-time study programs should be discussed with and approved by the course coordinator. Not all units are offered during the day. Full-time students may be required to attend a number of evening classes.

Part-Time Course Structure Sample Sequence		**Credit Points**	**Contact Hrs/Wk**
Year 1, Semester 1			
ISN200	Major Issues in Information Technology	12	3
ISN201	Research Methodology	12	
Year 1, Semester 2			
	Elective Unit	12	3
	Elective Unit	12	3
Year 2, Semester 1			
	Elective Unit	12	3
	Elective Unit	12	3
Year 2, Semester 2			
	Elective Unit	12	3
	Elective Unit	12	3
Year 3, Semester 1			
ISN301	Minor Project	12	
	Elective Unit	12	3
Year 3, Semester 2			
ISN302	Minor Project	12	
	Elective Unit	12	3
Year 4, Semester 1			
ISN303	Minor Project	12	
	Elective Unit	12	3

* *Not offered in 1994.*

Year 4, Semester 2

ISN304	Minor Project	12	
	Elective Unit	12	3

Graduate Diploma in Computing Science (CS19)

Location: Gardens Point campus

Course Duration: 1 year full-time, 2 years part-time

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Dr John Hynd

Entry Requirements

An applicant seeking admission into the Graduate Diploma in Computing Science is required to:

(i) hold a degree or a three-year diploma in a discipline other than computing from a recognised tertiary institution; applicants with undergraduate degrees or diplomas which include significant studies in computing are not eligible for admission into the course

(ii) have completed, at degree level, an introductory level programming unit using Pascal, Modula-2 or Ada (the equivalent of at least three hours per week for one semester). Note that first semester units will assume that these programming skills are current. Applicants who have completed this qualification some time ago are expected to perform any necessary review and practice.

In addition, an introductory tertiary level unit in Mathematics is desirable.

Professional Recognition

This course is accredited by the Australian Computer Society as meeting the knowledge requirements associated with the grade of 'Member' of the Society.

Full-Time Course Structure		**Credit Points**	**Contact Hrs/Wk**
Year 1, Semester 1			
ITP201	Foundations of Information Modelling	12	3
ITP411	Systems Architecture & Operating Systems	12	3
ITP412	Software Principles	12	3
ITP413	ADTS in a C/Unix Environment	12	3
Year 1, Semester 2			
ITP460	Project	12	
	Elective Unit	12	3
	Elective Unit	12	3
	Elective Unit	12	3

Note: Not all units are offered during the day. Full-time students may be required to attend evening classes.

Part-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
ITP201	Foundations of Information Modelling	12	3
ITP412	Software Principles	12	3
Year 1, Semester 2			
ITP411	Systems Architecture & Operating Systems	12	3
ITP413	ADTS in a C/Unix Environment	12	3
Year 2, Semester 1			
	Elective Unit	12	3
	Elective Unit	12	3
Year 2, Semester 2			
ITP460	Project	12	
	Elective Unit	12	3

Elective Units

The offering of elective units in any semester depends on sufficient minimum enrolments in the unit and the availability of staff. The choice of all elective units is subject to the approval of the course coordinator. Elective units may be selected from the following list or from advanced units in the Bachelor of Information Technology (IT20) course, excluding first year units and ITB420 Computer Architecture, ITB421 Data Structures and Algorithms, and ITB422 Laboratory 3 (ADTS in a Unix Envrionment).

FIRST SEMESTER ELECTIVE UNITS			
ITP200	Applications Programming	12	3
ITP470	Project	12	
ITP480/1	Project	12	
SECOND SEMESTER ELECTIVE UNITS			
ITP480/2	Project	12	
ITP481	Project	24	

Note: A 24 credit point project may be undertaken across two semesters (ITP480 Project) or in one semester (ITP481 Project), subject to approval from the course coordinator. This Project, ITP480 or ITP481, replaces the core Project ITP460 and one 12 credit point elective unit.

■ Graduate Diploma in Information Systems (IS24)

Location: Gardens Point campus

Course Duration: 1 year full-time, 2 years part-time

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Mr Alan Tickle

Entry Requirements

An applicant seeking admission into the Graduate Diploma in Information Systems is required to:

(i) hold a degree or a three-year diploma in a discipline other than computing from a recognised tertiary institution; applicants with undergraduate degrees or diplomas

which include significant studies in computing are not eligible for admission to this course

(ii) have completed, at a degree level, an introductory unit in Pascal or some similar structured programming language (the equivalent of at least three hours per week for one semester).

Professional Recognition

This course will be accredited by the Australian Computer Society as meeting the knowledge requirements associated with the grade of 'Member' of the Society.

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
ITB520	Data Communications	12	3
ITP200	Applications Programming	12	3
ITP201	Foundations of Information Modelling	12	3
ITP202	Systems Analysis & Design	12	3
Year 1, Semester 2			
ITP203	Applications Development	12	3
	Elective Unit	12	3
	Elective Unit	12	3
	Elective Unit	12	3
Part-Time Course Structure			
Year 1, Semester 1			
ITP200	Applications Programming	12	3
ITP201	Foundations of Information Modelling	12	3
Year 1, Semester 2			
ITB520	Data Communications	12	3
ITP202	Systems Analysis & Design	12	3
Year 2, Semester 1			
	Elective Unit	12	3
	Elective Unit	12	3
Year 2, Semester 2			
ITP203	Applications Development	12	3
	Elective Units	12	3

Elective Units

Elective units are to be chosen on the advice of the course coordinator from the units offered in the Bachelor of Information Technology (IT20).

■ Graduate Diploma in Library and Information Studies (IS25)

Location: Gardens Point campus

Course Duration: 1 year full-time, 2 years part-time

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Dr Jeanne Owen

Entry Requirements

To be eligible for admission to the Graduate Diploma in Library and Information Studies, applicants are required to have a degree or a three-year diploma from a recognised tertiary institution in a discipline other than library science and to have successfully completed a degree level introductory computing unit (the equivalent of at least three hours per week for one semester).

Professional Recognition

Graduates are eligible to become 'Associates' (that is, professional members) of the Australian Library and Information Association.

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Semester 1			
ITP201	Foundations of Information Modelling	12	3
ITP311	Collection Building & Acquisitions	12	3
ITP312	Organisation of Knowledge	12	3
ITP313	Information Sources & Services	12	3
Semester 2			
ITP314	Online Information Services	12	3
ITP315	Library Programs Management	12	3
ITP316	Field Experience	4	
	Elective Unit	12	3
	Elective Unit	8	2

Part-Time Course Structure

Year 1, Semester 1			
ITP201	Foundations of Information Modelling	12	3
ITP311	Collection Building & Acquisitions	12	3
Year 1, Semester 2			
ITP314	Online Information Services	12	3
ITP315	Library Programs Management	12	3
Year 2, Semester 1			
ITP312	Organisation of Knowledge	12	3
ITP313	Information Sources & Services	12	3
Year 2, Semester 2			
ITP316	Field Experience	4	
	Elective Unit	12	3
	Elective Unit	8	2

Second Semester Elective Units

The offering of elective units depends on sufficient minimum enrolments in the unit and the availability of staff. Elective units may be chosen from the list below. Alternatively, students may choose from any of the units offered in the Graduate Diploma in Education (Teacher-Librarianship) subject to the approval of that course coordinator; or units from the Information Management major in the Bachelor of Information Technology (IT20) on the advice of the course coordinator; or any other appropriate unit may be taken with the approval of the course coordinator.

ITP317	Library Services to Young People	12	3
ITP318	Advanced Organisation of Knowledge	12	3

ITP319	Government Documents	12	3
ITP320	Special Topic – Library Science	12	3
ITP321	Special Topic – Library Science	8	2
ITP322	Individual Study	8	2
ITP323	Introduction to Records Management	8	2
ITP324	Library Programs & Services	8	2
ITP325	Preservation Management of Materials	12	3

Bachelor of Applied Science (Computing) (Honours) (CS55)

Location: Gardens Point campus

Course Duration: 1 year full-time

Total Credit Points: 96

Standard Credit Poiuts/Full-Time Semester: 48

Course Coordinator: Dr Shlomo Geva

Entry Requirements

To be eligible for admission, students should have completed QUT's Bachelor of Applied Science – Computing or equivalent and should have attained a grade point average (GPA) of at least 5.0 on a 7 point scale (or its equivalent), including grades of at least 5 in all units directly relevant to the proposed honours program. Application for admission should normally be made at the end of the final year of the pass degree, or within 18 months of completing that degree.

Applicants who do not satisfy the above conditions but who have demonstrated outstanding performance in the final year of a degree, or whose application is based on other factors including work experience or involvement in research, may be admitted at the discretion of the course coordinator.

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Semester 1			
CSN202/1	Project	12	
CSN210	Distributed Systems	12	3
ITN541	Computer Security	12	3
	Elective Unit	12	3
Semester 2			
CSN100	Theory of Computing 1	12	3
CSN110	Compiler Construction	12	3
CSN202/2	Project	12	
	Elective Unit	12	

Note: Not all units are offered during the day. Full-time students may be required to attend evening classes.

Elective Units

The offering of elective units in any semester depends on sufficient minimum enrolments in the unit and the availability of staff. The choice of all elective units is subject to approval by the course coordinator.

One elective unit per semester is to be chosen from the following:

FIRST SEMESTER ELECTIVE UNITS			
CSN220	Artificial Intelligence	12	3
CSN340	Compiler Laboratory	12	3
CSN350	Advanced Graphics 1	12	3
CSN380	Neural Networks	12	3
ISN300	Information Systems 2	12	3
ITN542	Advanced Data Communications	12	3
SECOND SEMESTER ELECTIVE UNITS			
CSN300	Theory of Computing 2	12	3
CSN310	Parallel Processing	12	3
CSN370	Special Topic	12	3
ISN100	Information Systems 1	12	3

■ Bachelor of Business (Computing) (Honours) (IS61)

Location: Gardens Point campus

Course Duration: 1 year full-time

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Ms Alison Anderson

Entry Requirements

To be eligible for admission, students should have completed QUT's Bachelor of Business – Computing or equivalent and should have attained a grade point average (GPA) of at least 5.0 on a 7 point scale (or its equivalent), including grades of at least 5 in all units directly relevant to the proposed honours program. Application for admission should normally be made at the end of the final year of the pass degree, or within 18 months of completing that degree.

Applicants who do not satisfy the above conditions but who have demonstrated outstanding performance in the final year of a degree, or whose application is based on other factors including work experience or involvement in research, may be admitted at the discretion of the course coordinator.

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Semester 1			
ISN110	Formal Systems Specification	12	3
ISN201	Research Methodology	12	3
	Elective Unit	12	3
	Elective Unit	12	3
Semester 2			
ISN100	Information Systems 1	12	3
ISN211	Honours Project	12	
ISN320	Distributed Database Systems	12	3
	Elective Unit	12	3

Elective Units

The offering of elective units in any semester depends on sufficient minimum enrolments in the unit and the availability of staff. The choice of all elective units is to be determined by the course coordinator who may direct students to undertake particular units.

Elective units may be chosen from the following:

FIRST SEMESTER ELECTIVE UNITS			
ISN130	Object-Oriented Systems	12	3
ISN170	Special Studies	12	3
SECOND SEMESTER ELECTIVE UNITS			
ISN160	Knowledge-Based Systems	12	3
ITN240	Computer Security Risk Modelling	12	3

or from:

- any Faculty of Information Technology masters unit
- any QUT Faculty of Business postgraduate unit
- any QUT Faculty of Business undergraduate unit from the fifth or sixth semester of a normal full-time course.

Bachelor of Information Technology (IT20)

Location: Gardens Point campus

Course Duration: 3 years full-time, 6 years part-time

Total Credit Points: 288

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Mr Mike Roggenkamp

Professional Recognition

This course will be accredited by the Australian Computer Society as meeting the knowledge requirements associated with the grade of 'Member' of the Society.

Course Structure

The course structure divides into three blocks of equal weight (96 credit points each).

All students will undertake the Foundation Year of the course; this year makes up one block of the course (96 credit points).

At the end of this year, students choose a Primary Major in one of Computing Science, Data Communications, Information Management, or Information Systems. The Primary Major makes up the second block of the course and extends over the second and third years; it is worth 96 credit points.

Students also choose the make-up of the third block of the course. They can undertake a secondary major (96 credit points); an extended major (48 credit points) with a minor (48 credit points); or two minors (48 credit points each). The third block also extends over the second and third years of the course.

Course Requirements

Year 1	**BLOCK 1** (96 credit points)	Foundation Year
Years 2 & 3	**BLOCK 2** (96 credit points)	Primary Major
	BLOCK 3 (96 credit points	**ONE OF THE FOLLOWING:** ☐ Secondary Major ☐ Extended Major OR Pre-honours Extended Major ☐ Minor and a second Minor

Block 3 Units

Students should refer to offerings made by Computing Science, Data Communications, Information Management, and Information Systems. When planning their program, students should pay special attention to the availability of units in each semester, and any prerequisite or corequisite requirements.

Pre-Honours Extended Majors

Pre-honours extended majors will be available for selected students in Computing Science, Data Communications, Information Management, and Information Systems. They will be available in the second semester of the second year of study, in place of the extended major. These pre-honours extended majors will prepare students for Honours and higher-level studies.

Bachelor of Information Technology (Honours)

It is expected that the Bachelor of Information Technology (Honours) degree, in the areas of Computing Science, Data Communications, Information Management and Information Systems, will be available from 1995.

Cooperative Education Program

An optional one-year paid work experience is available to eligible students at the end of the second year of full-time study. Part-time students may also be eligible to apply for credit towards the Cooperative Education Program on the basis of their employment. Information on this Program is given at the end of this course entry.

☐ Foundation Year

Full-Time Course Structure		**Credit Points**	**Contact Hrs/Wk**
Year 1, Semester 1			
ITB101	Laboratory 1 (Computing Environments)	12	3
ITB210	Formal Representation	12	3
ITB310	Information Management 1	12	3
ITB410	Software Development 1	12	3
Year 1, Semester 2			
BSB103	Business Communications & Applications	12	3
ITB102	Laboratory 2 (Computer Applications)	12	3
ITB411	Software Development 2	12	3
ITB412	Technology of Information Systems	12	3

Part-Time Course Structure

Year 1, Semester 1

ITB101	Laboratory 1 (Computing Environments)	12	3
ITB210	Formal Representation	12	3

Year 1, Semester 2

BSB103	Business Communications & Applications	12	3
ITB410	Software Development 1	12	3

Year 2, Semester 1

ITB310	Information Management 1	12	3
ITB412	Technology of Information Systems	12	3

Year 2, Semester 2

ITB102	Laboratory 2 (Computer Applications)	12	3
ITB411	Software Development 2	12	3

☐ Computing Science

COMPUTING SCIENCE PRIMARY MAJOR

Coordinator: Dr Gerard Finn

Full-Time Course Structure		**Credit Points**	**Contact Hrs/Wk**
Year 2, Semester 1			
ITB420	Computer Architecture	12	3
ITB421	Data Structures & Algorithms	12	3
ITB422	Laboratory 3 (ADTS in a Unix Environment)	12	3
ITB520	Data Communications	12	3
Year 2, Semester 2			
ITB424	Software Engineering Principles	12	3
ITB431	Programming Language Paradigms	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
Year 3, Semester 1			
ITB423	Laboratory 4 (Software Development)	12	3
ITB430	Concurrent Systems	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
Year 3, Semester 2			
	Block 3 Unit	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3

Part-Time Course Structure

Year 3, Semester 1

ITB520	Data Communications	12	3
	Block 3 Unit	12	3

Year 3, Semester 2

ITB421	Data Structures & Algorithms	12	3
ITB422	Laboratory 3 (ADTS in a Unix Environment)	12	3

Year 4, Semester 1

ITB424	Software Engineering Principles	12	3
	Block 3 Unit	12	3

Year 4, Semester 2

ITB423	Laboratory 4 (Software Development)	12	3
	Block 3 Unit	12	3

Year 5, Semester 1

ITB431	Programming Language Paradigms	12	3
	Block 3 Unit	12	3

Year 5, Semester 2

ITB420	Computer Architecture	12	3
	Block 3 Unit	12	3

Year 6, Semester 1

	Block 3 Unit	12	3
	Block 3 Unit	12	3

Year 6, Semester 2

ITB430	Concurrent Systems	12	3
	Block 3 Unit	12	3

COMPUTING SCIENCE EXTENDED MAJOR
(for Computing Science students only)

ITB440	Languages & Language Processing	12	3
ITB446	Project	12	
	Computing Science Elective Unit	12	3
	Computing Science Elective Unit	12	3

Note: ITB446 Project and one elective unit may, subject to the approval of the major coordinator, be replaced with a 24 credit point project unit taken over 1 semester (ITB453) or 2 semesters (ITB451).

COMPUTING SCIENCE PRE-HONOURS EXTENDED MAJOR (for selected Computing Science students only)

ITB440	Languages & Language Processing	12	3
ITB450	Advanced Computer Architecture	12	3
ITB452	Project Work	24	

Computing Science Elective Units

The offering of any elective unit in any semester depends on sufficient minimum enrolments in the unit and the availability of staff. Subject to the approval of the major coordinator, students may choose electives from other Schools within the Faculty or from other Faculties.

FIRST SEMESTER ELECTIVE UNITS

ITB441	Graphics	12	3
ITB442	Artificial Intelligence	12	3
ITB443	Systems Programming	12	3
ITB444	Special Studies 1	12	3
ITB447	Project	12	
ITB448	Object Technology	12	3
ITB451/1	Project	12	
ITB543	Data Security	12	3

SECOND SEMESTER ELECTIVE UNITS

ITB443	Systems Programming	12	3
ITB445	Special Studies 2	12	3
ITB448	Object Technology	12	3

ITB449	Expert Systems	12	3
ITB451/2	Project	12	
ITB453	Project	24	
MAB172	Statistical Methods	12	3

Note: A 24 credit point project may be undertaken across two semesters (ITB451 Project) or in one semester (ITB453 Project), subject to the approval of the major coordinator.

☐ Data Communications

DATA COMMUNICATIONS PRIMARY MAJOR

Coordinator: Mr Neville Richter

Full-Time Course Structure		**Credit Points**	**Contact Hrs/Wk**
Year 2, Semester 1			
ITB520	Data Communications	12	3
MAB177	Mathematics for Data Communications	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
Year 2, Semester 2			
ITB521	Laboratory 3 (Computer Networks)	12	3
ITB546	Special Studies in Data Networks	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
Year 3, Semester 1			
ITB530	Transport Protocols	12	3
ITB531	Application Services	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
Year 3, Semester 2			
ITB532	Laboratory 4 (Network Management)	12	3
	Data Communications Elective Unit	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3

Part-Time Course Structure

Year 3, Semester 1			
ITB520	Data Communications	12	3
MAB177	Mathematics for Data Communications	12	3
Year 3, Semester 2			
ITB521	Laboratory 3 (Computer Networks)	12	3
ITB546	Special Studies in Data Networks	12	3
Year 4, Semester 1			
	Block 3 Unit	12	3
	Block 3 Unit	12	3
Year 4, Semester 2			
	Block 3 Unit	12	3
	Block 3 Unit	12	3

Year 5, Semester 1

ITB530	Transport Protocols	12	3
ITB531	Application Services	12	3

Year 5, Semester 2

	Block 3 Unit	12	3
	Block 3 Unit	12	3

Year 6, Semester 1

	Block 3 Unit	12	3
	Block 3 Unit	12	3

Year 6, Semester 2

ITB532	Laboratory 4 (Network Management)	12	3
	Data Communications Elective Unit	12	3

DATA COMMUNICATIONS EXTENDED MAJOR
(for Data Communications students only)

ITB422	Laboratory 3 (ADTS in a Unix Environment)	12	3
ITB443	Systems Programming	12	3
ITB542	Network Programming	12	3
ITB544	Project	12	

Data Communieations Elective Units

The offering of any elective units in any semester depends on sufficient minimum enrolments in the unit and the availability of staff. Selection of all elective units is subject to the approval of the major coordinator. Students may also choose electives from other Schools within the Faculty or from other Faculties.

BSB102	Management & Organisation	12	3
ITB420	Computer Architecture	12	3
ITB541	Transmission Techniques	12	3
ITB542	Network Programming	12	3
ITB543	Data Security	12	3
ITB544	Project	12	
ITB545	Project	24	
ITB546	Special Studies 1	12	3
ITB547	Special Studies 2	12	3
ITB548	Introduction to Cryptology	12	3
ITB549	Error Control & Data Compression	12	3
ITN546	Advanced Topics in Cryptology	12	3

☐ Information Management

INFORMATION MANAGEMENT PRIMARY MAJOR

Coordinator: Mr Michael Middleton

Full-Time Course Structure		**Credit Points**	**Contact Hrs/Wk**
Year 2, Semester 1			
ITB220	Database Design	12	3
ITB320	Laboratory 3 (Database Applications)	12	3
ITB321	Systems Analysis	12	3
ITB322	Information Resources	12	3

Year 2, Semester 2

ITB323	Laboratory 4 (Information Support Methods)	12	3
ITB520	Data Communications	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3

Year 3, Semester 1

ITB330	Information Issues & Values	12	3
ITB331	Information Management 2 (Analysis & Use)	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3

Year 3, Semester 2

	Block 3 Unit	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3

Part-Time Course Structure

Year 3, Semester 1

ITB321	Systems Analysis	12	3
ITB322	Information Resources	12	3

Year 3, Semester 2

	Block 3 Unit	12	3
	Block 3 Unit	12	3

Year 4, Semester 1

ITB220	Database Design	12	3
ITB320	Laboratory 3 (Database Applications)	12	3

Year 4, Semester 2

ITB323	Laboratory 4 (Information Support Methods)	12	3
ITB520	Data Communications	12	3

Year 5, Semester 1

ITB331	Information Management 2 (Analysis & Use)	12	3
	Block 3 Unit	12	3

Year 5, Semester 2

	Block 3 Unit	12	3
	Block 3 Unit	12	3

Year 6, Semester 1

ITB330	Information Issues & Values	12	3
	Block 3 Unit	12	3

Year 6, Semester 2

	Block 3 Unit	12	3
	Block 3 Unit	12	3

INFORMATION MANAGEMENT EXTENDED MAJOR
(for Information Management students only)

ITB340	Project	12	
ITB341	Information Management 3 (Strategy & Planning)	12	3
MAB172	Statistical Methods	12	3
SSB937	Applied Cognitive Psychology	12	3

INFORMATION MANAGEMENT PRE-HONOURS EXTENDED MAJOR
(for selected Information Management students only)

ITB350	Project H	12

ITB351	Information Management 3H (Strategy & Planning)	12	3
ITB352	Laboratory 4H (Information Support Method & Evaluation)	12	3
MAB272	Research Methods	12	3

☐ Information Systems

INFORMATION SYSTEMS PRIMARY MAJOR

Coordinators:
Semester 1: Mr Hamish Bentley
Semester 2: Associate Professor Alan Underwood

Full-Time Course Structure		**Credit Points**	**Contact Hrs/Wk**
Year 2, Semester 1			
ITB220	Database Design	12	3
ITB221	Laboratory 3 (Commercial Programming)	12	3
ITB222	Systems Analysis & Design 1	12	3
ITB520	Data Communications	12	3
Year 2, Semester 2			
ITB223	Laboratory 4 (4GL Programming)	12	3
ITB224	Systems Analysis & Design 2	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
Year 3, Semester 1			
ITB230	Project	12	
	OR		
ITB231	Applications Development	12	3
ITB232	Database Management	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
Year 3, Semester 2			
	Block 3 Unit	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
Part-Time Course Structure			
Year 3, Semester 1			
ITB222	Systems Analysis & Design 1	12	3
ITB520	Data Communications	12	3
Year 3, Semester 2			
ITB221	Laboratory 3 (Commercial Programming)	12	3
ITB224	Systems Analysis & Design 2	12	3
Year 4, Semester 1			
ITB220	Database Design	12	3
	Block 3 Unit	12	3
Year 4, Semester 2			
ITB223	Laboratory 4 (4GL Programming)	12	3
	Block 3 Unit	12	3

Year 5, Semester 1

ITB230	Project	12	
	OR		
ITB231	Applications Development	12	3
	Block 3 Unit	12	3

Year 5, Semester 2

ITB232	Database Management	12	3
	Block 3 Unit	12	3

Year 6, Semester 1

	Block 3 Unit	12	3
	Block 3 Unit	12	3

Year 6, Semester 2

	Block 3 Unit	12	3
	Block 3 Unit	12	3

INFORMATION SYSTEMS EXTENDED MAJOR
(for Information Systems students only)

ITB240	Project	12	
ITB241	Information Systems Management	12	3
	Information Systems Elective Unit	12	3
	Information Systems Elective Unit	12	3

INFORMATION SYSTEMS PRE-HONOURS EXTENDED MAJOR
(for selected Information Systems students only)

ITB240	Project	12	
ITB241	Information Systems Management	12	3
ITB249	Theoretical Foundations of Database Systems	12	3
MAB272	Research Methods	12	3

Information Systems Elective Units

The offering of any elective units in any semester depends on sufficient minimum enrolments in the unit and the availability of staff. Subject to the approval of the Major Coordinator, students may choose electives from other Schools within the Faculty or from other Faculties.

FIRST SEMESTER ELECTIVE UNITS

ITB231	Applications Development	12	3
ITB242	Decision Support Systems	12	3
ITB244	Special Topic 1	12	3
ITB247	Project	24	
ITB543	Data Security	12	3

SECOND SEMESTER ELECTIVE UNITS

ITB243	Knowledge-Based Systems	12	3
ITB245	Special Topic 2	12	3
ITB246	Unix & C	12	3
ITB249	Theoretical Foundations of Database Systems	12	3
MAB172	Statistical Methods	12	3

☐ Possible Secondary Majors

BUSINESS PRINCIPLES SECONDARY MAJOR

ALB110	Business Law	12	3
AYB110	Accounting	12	4
BSB102	Management & Organisation	12	3
COB102	Consulting for Organisational Change	12	3

EPB116	Economic Principles 1	12	3
FNB123	Managerial Accounting 1	12	4
HRB131	Personnel Management & Industrial Relations	12	3
MKB140	Principles of Marketing	12	3

INFORMATION SYSTEMS SECONDARY MAJOR
(for Information Technology Students)

ITB220	Database Design	12	3
ITB222	Systems Analysis & Design 1	12	3
ITB223	Laboratory 4 (4GL Programming)	12	3
ITB224	Systems Analysis & Design 2	12	3
ITB241	Information Systems Management	12	3
	Elective Unit (Information Systems)	12	3
	Elective Unit (Information Systems)	12	3
	Elective Unit (Information Systems)	12	3

INFORMATION SYSTEMS SECONDARY MAJOR
(for non-Information Technology students)

ITB101	Laboratory 1 (Computing Environments)	12	3
ITB210	Formal Representation	12	3
ITB220	Database Design	12	3
ITB222	Systems Analysis & Design 1	12	3
ITB410	Software Development 1	12	3
	Elective Unit (Information Systems)	12	3
	Elective Unit (Information Systems)	12	3
	Elective Unit (Information Systems)	12	3

MATHEMATICS SECONDARY MAJOR

ITB548	Introduction to Cryptology	12	3
MAB172	Statistical Methods	12	3
MAB212	Mathematics 1	12	4
MAB232	Discrete Mathematics	12	4
MAB620	Finite Mathematics	12	4
MAB637	Operations Research 1A	12	4

Plus two of:

MAB272	Research Methods	12	3
MAB618	Numerical Analysis 1	12	4
MAB630	Linear Algebra & its Applications	12	4
MAB638	Operations Research 1B	12	4

☐ Possible Minors

Computing Science Minors

COMPUTING SCIENCE MINOR 1 (for Data Communications major)

ITB421	Data Structures & Algorithms	12	3
ITB422	Laboratory 3 (ADTS in Unix Environment)	12	3
	Elective Units (Computing Science)	[minimum of 24 credit points]	

COMPUTING SCIENCE MINOR 2 (for Information Management major)

BSB102	Management & Organisation	12	3
ITB421	Data Structures & Algorithms	12	3
ITB422	Laboratory 3 (ADTS in Unix Environment)	12	3
	Elective Unit (Computing Science)	12	3

COMPUTING SCIENCE MINOR 3 (for Information Systems major)

ITB421	Data Structures & Algorithms	12	3
ITB431	Programming Languages Paradigms	12	3
	Elective Units (Computing Science)	[minimum of 24 credit points]	

SOFTWARE ENGINEERING MINOR (for Computing Science major)

ITB448	Object Technology	12	3
ITB454	Software Quality Assurance	12	3
ITB455	Software Engineering Applications	12	3
ITB456	Intelligent Graphic User Interfaces	12	3

Data Communications Minors

NETWORKS MINOR (for non-Data Communications majors)

ITB521	Laboratory 3 (Computer Networks)	12	3
ITB546	Special Studies in Data Networks	12	3
	Elective Units (Data Communication)	[minimum of 24 credit points]	

TELECOMMUNICATIONS MINOR (for Data Communications major)

MAB178	Probability for Telecommunications	12	3
EEB101	Circuits Measurement	7	3
EEB373	Digital Electronics Principle	6	3
EEB961	Communications Techniques	7	3
EEB967	Digital Communications	6	3
	Elective Unit (Data Communications)	12	3

Information Management Minors

INFORMATION MANAGEMENT MINOR
(for non-Information Management majors)

BSB102	Management & Organisation	12	3
ITB331	Information Management 2 (Analysis & Use)	12	3
ITB341	Information Management 3 (Strategy & Planning)	12	3

One of:

ITB322	Information Resources	12	3
ITB323	Laboratory 4 (Information Support Methods)	12	3
ITB330	Information Issues & Values	12	3

LIBRARY STUDIES MINOR

BSB102	Management & Organisation	12	3
	OR		
ITP315	Library Programs Management	12	3
ITP311	Collection Building & Acquisitions	12	3
ITP312	Organisation of Knowledge	12	3

Information Systems Minors (not available for Information Systems students)

INFORMATION SYSTEMS MINOR 1 (for Computing Science major)

ITB220	Database Design	12	3
ITB222	Systems Analysis & Design 1	12	3
ITB241	Information Systems Management	12	3
	Elective Unit (Information Systems)	12	3

INFORMATION SYSTEMS MINOR 2 (for Information Management major)

BSB102	Management & Organisation	12	3
ITB232	Database Management	12	3
ITB242	Decision Support Systems	12	3
	Elective Unit (Information Systems)	12	3

Other Possible Minors

ECONOMICS MINOR

BSB102	Management & Organisation	12	3
EPB140	Macroeconomics	12	3
EPB150	Microeconomics	12	3
	Business Economics Elective Unit		

PRODUCTION MINOR

BSB102	Management & Organisation	12	3
COB134	Speech Communication: Theory & Practice	12	3
	OR		
COB138	Written Communication: Theory & Practice	12	3
MJB118	Fundamentals of Photography	12	3
	OR		
MJB126	Video Production	12	3
	Business Production Elective Unit	12	3

MANAGEMENT MINOR

BSB102	Management & Organisation	12	3
HRB126	Management Processes	12	3
HRB131	Personnel Management & Industrial Relations	12	3
	Business Management Elective Unit	12	3

MARKETING MINOR

BSB102	Management & Organisation	12	3
MKB140	Principles of Marketing	12	3
MKB141	Marketing Management	12	3
	Business Marketing Elective	12	3

MATHEMATICS MINOR

MAB212	Mathematics I	12	4
MAB232	Discrete Mathematics	12	4

Plus two of:

ITB548	Introduction to Cryptology	12	3
MAB172	Statistical Methods	12	3
MAB620	Finite Mathematics	12	4
MAB637	Operations Research IA	12	4

☐ Cooperative Education Program (Elective Unit ITB904 – Industrial Training Experience)

AIMS

The purpose of the Cooperative Education Program is to provide students within the Bachelor of Information Technology experience of a real world environment prior to the study of the more advanced aspects of the course. This experience:

(i) enables the student to place the concepts learned in the first two years in context, and

(ii) provides an experience that will enhance the benefits obtained from early study.

The Cooperative Education period necessarily involves reorientation and on-the-job training but students are expected to apply study skills to the acquisition of the necessary knowledge and, in general, employers are not expected to provide formal training.

SELECTION CRITERIA

To qualify for the Cooperative Education Program, students must have enrolled in the fourth semester (or equivalent) of the Bachelor of Information Technology, and either passed all units or attained an overall grade point average of 4.5 in the first three semesters (or equivalent). The option to review a student's performance at the end of the fourth semester is available to employers.

FEATURES

The Cooperative Education Program is offered under the guise of the 24 credit point unit ITB904 Industrial Training Experience and has the following features:

- The Faculty assists students to obtain suitable employment for the one-year period and also discusses the nature of the work to be undertaken with the employer. As employers choose their placements from interviews, the Faculty also arranges for students to attend sessions on interview techniques conducted by the Counselling Centre.
- An academic member of staff normally visits the student once per semester and discusses progress with the student and a representative of the employer.
- During the training period the student writes two reports on the experience, submits them to the employer for endorsement and comment, and then hands them to the Administration Officer (Academic) for assessment. The reports should highlight different aspects of the period, and include comments and recommendations.
- Students will be assessed as either satisfactory or unsatisfactory in this unit. A satisfactory grade will be granted on the basis of:
  (i) satisfactory completion of an approved period of cooperative education, and
  (ii) submission of satisfactory reports on the year's experience. The reports must be submitted not later than the due dates specified in the study guides.
- A salary is paid to the student by the employer during this training period.
- The Faculty carefully monitors all cooperative education placements and keeps a list of employers prepared to offer training. The Faculty makes its best endeavour to find suitable training places for all students who meet the selection criteria and elect to undertake this option.
- Part-time students may apply for credit towards ITB904 on the basis of their employment. Credit will be granted on the basis of a two-year period of full-time employment in an approved environment and compliance with a number of administrative requirements:
  (i) a statement from the course coordinator that the arrangements have been discussed with the employer and that the proposed period of employment will provide appropriate work experience
  (ii) satisfactory reports, written by the student, endorsed by the employer and submitted no later than the due dates.
- It is intended that full-time students on the scheme will devote their prime efforts to the Industrial Training Experience and will not, therefore, be permitted to register for more than one other unit per semester during that year.

Note: Where there has been significant evidence of plagiarism or computer misuse by a student at any time during the course, no placement will be available to that student.

Bachelor of Applied Science (Computing) (CS28)
Bachelor of Applied Science (Computing) (IS28)
Bachelor of Business (Computing) (IS10)
Bachelor of Business (Information Management) (IS43)

Continuing students only: Prior to re-enrolment, continuing students must consult with the course coordinator to arrange a course of study to complete the award.