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 many cases, Faculty policy is more explicit than University policy. Commencing students should make sure they obtain a copy of the Faculty's Student Information Booklet, which is distributed during Orientation.

Note that from first semester 1995 a minimum grade of 4 is normally required to fulfil the prerequisite requirement for all units in courses offered by the Faculty of Information Technology.

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)

Location: Gardens Point campus

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

Total Credit Points Required: 192

Standard Credit Points/Full-time Semester: 48

Course Coordinator: Associate Professor George Mohay

Note: The Master of Applied Science (Research) course will be discontinued as from the end of 1995. It will be replaced with the Master of Information Technology (Research) (IT60). Students currently enrolled in IT84 will be able to complete the award Master of Applied Science (Research).

Students should enrol in the relevant Masters research unit in **each** semester. At the end of each semester a result in this unit will be recorded as "T" – Assessment Continues. A final grade (Satisfactory/Unsatisfactory) will be given once the thesis has been examined according to the degree rules.

Full-time Course Structure		Credit Points
Year 2, Semester 1		
IFN100	Full-time Masters Research	48
Year 2, Semester 2		
IFN100	Full-time Masters Research	48

For full-time students who have exceeded the normal course duration and for whom an extension of time has been approved, IFN101 – Full-time Masters Research (extension) is substituted for IFN100 in subsequent semesters.

Part-time Course Structure		Credit Points
Year 2, Semester 1		
IFN200	Part-time Masters Research	24
Year 2, Semester 2		
IFN200	Part-time Masters Research	24
Year 3, Semester 1		
IFN200	Part-time Masters Research	24
Year 3, Semester 2		
IFN200	Part-time Masters Research	24
Year 4, Semester 1		
IFN200	Part-time Masters Research	24
Year 4, Semester 2		
IFN200	Part-time Masters Research	24

For part-time students who have exceeded the normal course duration and for whom an extension of time has been approved, IFN201 – Part-time Masters Research (extension) is substituted for IFN200 in subsequent semesters.

■ Master of Information Technology (Research) (IT60)

Location: Gardens Point campus

Course Duration: 1.5 years full-time, 3 years part-time

The option to enrol in Summer School is available to students who wish to complete the course in one calendar year.

Total Credit Points Required: 144

Standard Credit Points/Full-time Semester: 48

Course Coordinator: Associate Professor George Mohay

COURSE OUTLINE

Full-time Course Structure		Credit Points
Year 1, Semester 1		
Coursework Units (Selected in consultation with supervisor)		36
ITN160	Research Plan	12
Year 1, Semester 2		
IFN100	Full-time Masters Research	48
Year 1, Summer School or Year 2, Semester 1		
IFN100	Full-time Masters Research	48

For full-time students who have exceeded the normal course duration and for whom an extension of time has been approved, IFN101 – Full-time Masters Research (extension) is substituted for IFN100 in subsequent semesters.

Part-time Course Structure		Credit Points
Year 1, Semester 1		
Coursework Units (Selected in consultation with supervisor)		24
Year 1, Semester 2		
Coursework Unit (Selected in consultation with supervisor)		12
ITN160	Research Plan	12

Year 2, Semester 1

IFN200	Part-time Masters Research	24

Year 2, Semester 1

IFN200	Part-time Masters Research	24

Year 3, Semester 1

IFN200	Part-time Masters Research	24

Year 3, Semester 2

IFN200	Part-time Masters Research	24

For part-time students who have exceeded the normal course duration and for whom an extension of time has been approved, IFN201 – Part-time Masters Research (extension) is substituted for IFN200 in subsequent semesters.

COURSE RULES: MASTER OF INFORMATION TECHNOLOGY (RESEARCH)

Introduction

The objectives of the course are:

- To provide postgraduate educational opportunities in specialised fields of information technology by means of a program which involves either an original contribution to knowledge or an original application of existing knowledge.
- To provide postgraduate students with education in research processes in information technology.
- To enable graduates employed in industry to undertake further education by research and thesis.
- To enable students employed in industrial organisations and external agencies to undertake research projects related to their professional development.
- To further the relationships that exist between the University and industry or other external agencies engaged in information technology to their mutual advantage.

1. General Conditions

1.1 The Council of the Queensland University of Technology was established in 1989 under the *Queensland University of Technology Act* 1988.

1.2 The Council's power to approve recommendations from faculty academic boards regarding the registration, supervision and examination of research degree candidates and to develop policy and procedure relating to research degrees is exercised through a Research Management Committee which shall be a subcommittee of the University Academic Board.

1.3 The Research Management Committee has delegated responsibility for day-to-day administration of this course to the Faculty of Information Technology academic board. The academic board shall report biannually to the Research Management Committee on progress made by research Masters degree candidates.

1.4 In order to qualify for the award of the degree of Master of Information Technology (Research), a candidate must:

- have completed the approved course of study under the supervision prescribed by the academic board
- have submitted and the academic board have accepted a thesis prepared under the supervision of the supervisor
- have completed any other work prescribed by the academic board, and
- submit to the academic board a declaration signed by the candidate that he/she has not been a candidate for another tertiary award without permission of the academic board.

2. Registration

2.1 Applications shall be accepted subject to the availability of facilities and supervision.

2.2 Applications may be lodged with the Registrar at any time.

2.3 The minimum academic qualifications for admission to a program leading to a Master of Information Technology (Research) shall be:

- possession of a bachelor degree in information technology or other approved degree from the Queensland University of Technology, or
- possession of an equivalent qualification, or
- submission of such other evidence of qualifications as will satisfy the academic board that the applicant possesses the capacity to pursue the course of study.

2.4 In considering an applicant for registration the academic board shall, in addition to assessing the applicant's suitability, assess the proposed program and its relevance to the aims and objectives of the University.

2.5 A candidate may register either as a full-time or as a part-time student. To be registered as a full-time student, a candidate must be able to commit to the course not less than three-quarters of a normal working week, averaged over each year of candidacy. Such a student may not devote more than 300 hours annually to teaching activities, including preparation and marking.

2.6 A candidate may be internal or external. An external candidate is one whose program of research and investigation is based at a place of employment or sponsoring institution. Normally, support of the sponsoring institution for the candidate's application is required for registration.

2.7 A candidate shall receive confirmed registration as a graduate student when he or she:

- has been accepted for provisional registration in the Faculty of Information Technology and has met the requirements of the Faculty's confirmation procedures, which are: (i) submission of a written progress report, detailing the results of both coursework and research work to date; (ii) presentation of a public seminar defending the proposed research plan; and (iii) interview with a review panel consisting of three members of the Faculty's academic staff; and when
- the Faculty academic board has approved confirmed registration.

2.8 Applicants holding an appropriate and current honours degree or its equivalent may apply to the Faculty academic board for confirmed enrolment on admission. Such applicants approved by the academic board shall have individual minimum and maximum completion times specified.

2.9 The academic board may cancel a candidate's registration, after consulting the relevant supervisors and having taken account of all relevant circumstances and having given the candidate opportunity to show cause why it should not do so:

- if it is of the opinion that the candidate either has effectively discontinued his/her studies or has no reasonable expectation of completing the course of study within the maximum time allowed (see Section 4), or
- if the quality and progress of research gives no reasonable expectation of successful completion of the degree, or
- if the candidate's performance in coursework undertaken is considered unsatisfactory.

2.10 A candidate whose registration has lapsed or has been cancelled and who wishes subsequently to re-enter the course to undertake a research program which is the same or

essentially the same as the previous program may be re-admitted under such conditions as the academic board may prescribe.

3. Course of Study

3.1 A candidate for the degree of Master of Information Technology (Research) shall 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.

3.2 The program must be such as to enable the candidate to develop and demonstrate a level of technical competence significantly higher than that expected of a first degree graduate. The required competence normally would include mastery of relevant techniques, investigatory skills, critical thinking, and a high level of knowledge in the specialist area.

3.3 A candidate may be required by the academic board to undertake an appropriate course of study concurrently with the research program.

The course of study normally will include:

- a program of assessed coursework
- participation in University scholarly activities such as research seminars, teaching and publication
- regular face-to-face interaction with supervisors, and
- a program of supervised research and investigation.

3.4 Coursework at Masters level demands a capacity for critical analysis and a specialisation of research interests not normally appropriate for an undergraduate program.

In all cases, coursework will be based upon a formal syllabus setting out the educational outcomes expected from the course, a list of topics to be covered, the prescribed reading material and the method of assessment of progress through and at the end of the course.

3.5 Coursework will occupy not more than a third of the total period of registration.

3.6 An application for registration should set out systematically and fully the candidate's intended course of study. The description should include the area of study within which the candidate's course lies, the coursework to be undertaken, the proposed title of the thesis to be written, the aim of the proposed program of research and investigation, its background, the significance and possible application of the research program, and the research plan.

4. Period of Time for Completion of Course of Study

4.1 A full-time student shall normally be eligible for confirmation of registration after a period of at least six months has elapsed from initial registration. The corresponding period in the case of a part-time student shall be normally at least 12 months.

4.2 Students initially admitted as provisionally enrolled students shall present the thesis for examination after a minimum period of at least 18 months and within a maximum period of three years for a full-time student or a minimum period of at least three years and within a maximum period of five years for a part-time student. In special cases the academic board may approve a shorter period.

4.3 Where application is made for permission to extend the period within which the candidate may submit a thesis for examination, details of the candidate's progress shall be presented to the academic board together with the reasons for the delay in completing the course and the expected date of completion. Where the academic board agrees to an extension, it may set a limit to the maximum period of registration in the program.

5. Supervision

5.1 For each candidate the academic board shall appoint two or more supervisors with appropriate experience provided that one shall be nominated as the Principal Supervisor and others as associate supervisors.

5.2 In the case of an internal student, the Principal Supervisor normally shall be from the academic staff of the school where the student carries out the work.

5.3 In the case of an external student, the Principal Supervisor normally shall be from the academic staff of the school supporting the work and at least one associate supervisor shall be from the sponsoring organisation.

5.4 At the end of each six-month period a student shall submit a report on the work undertaken to the Principal Supervisor and the Principal Supervisor shall submit a report to the academic board on the student's work. This report shall be seen by the candidate before submission to the academic board.

6. Place and Conditions of Work

6.1 The research program must normally be carried out under supervision in a suitable environment in Australia.

6.2 The academic board shall not admit a candidate to undertake a program of research based at the University unless it has received a statement from the head of school and/or director of centre in which the study is proposed that, in their opinion, the applicant is a fit person to undertake a research program leading to the Masters degree, that the program is supported, and that the school/department is willing to undertake the responsibility of supervising the applicant's work.

6.3 The academic board shall not admit a candidate to undertake a research program based at a sponsoring establishment unless it has received:

- a statement from the employer or director of the sponsoring institution that the applicant will be provided with facilities to undertake the research project and that he/she is willing to accept responsibility for supervising the applicant's work, and
- a statement from the head of school or director of centre in which the study is proposed that, in his or her opinion, the applicant is a fit person to undertake a research program leading to the Masters degree, that the program is supported, and that after examination of the proposed external facilities and supervision, the school/department is willing to accept the responsibility of supervising the work.

7. Thesis

7.1 In the form of presentation, availability and copyright, the thesis shall comply with the provisions of the document *Requirements for Presenting Theses.*

7.2 Not later than six months after confirmed registration the candidate shall submit the title of the thesis for approval by the academic board. After approval has been granted, no change shall be made except with the permission of the academic board.

7.3 The candidate shall give two months' notice of intention to submit the thesis. Such notice shall be accompanied by the appropriate fee, if any.

7.4 The thesis shall comply with the following requirements:

- A significant portion of the work described must have been carried out subsequent to initial registration for the degree.
- It must describe a program of work carried out by the candidate, and must involve either an original contribution to knowledge or an original application of existing knowledge.

- It must reach a satisfactory standard of literary presentation.
- It shall be the candidate's own account of the work. Where work is carried out conjointly with other persons, the academic board shall be advised of the extent of the candidate's contribution to the joint work.
- The thesis shall not contain as its main content any work or material which the student has previously submitted for another degree or similar award.
- Supporting documents, such as published papers, may be submitted with the thesis if they have a bearing on the subject of the thesis.
- The thesis shall contain an abstract of not more than 300 words.

7.5 Except with the specific permission of the academic board, the thesis must be presented in the English language. Such permission must be sought at the time of application for registration, and will not be granted solely on the grounds that the candidate's ability to satisfy the examiners will be affected adversely by the requirement to present the thesis in English.

7.6 Subject to QUT's Intellectual Property policy, the copyright of the thesis is vested in the candidate.

7.7 Where a candidate or the sponsoring establishment wishes the thesis to remain confidential for a period of time after completion of the work, application for approval must be made to the Research Management Committee when the thesis is submitted. The period normally shall not exceed two years from the date on which the examiners recommend acceptance of the thesis, during which time the thesis will be held on restricted access in the QUT Library.

8. Examination of Thesis

8.1 The academic board shall appoint at least two examiners of whom at least one shall be from outside the University.

8.2 Normally, examiners must agree to read and report upon the thesis within two months of its receipt.

8.3 A candidate may be required to make an oral defence of the thesis.

8.4 On receipt of satisfactory reports from the examiners, and when the provisions of Section 7.1 have been fulfilled, the academic board shall recommend that the candidate be awarded the degree.

8.5 If the examiners' reports are conflicting, the academic board may, after appropriate consultation with the Principal Supervisor:

- seek advice from a further external examiner, or
- not award the degree.

8.6 If, on the basis of the examiners' reports, the academic board does not recommend that the degree be awarded then it shall:

- permit the student to resubmit the thesis within one year for re-examination, or
- cancel the student's registration.

Master of Information Technology (IT40)/ Graduate Diploma in Information Technology (IT35)

Location: Gardens Point campus

Course Duration: 1.5 years full-time, 3 years part-time

Total Credit Points: 144

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Mr Mike Roggenkamp

Course Structure

The course structure is determined by the student's entry qualifications:

Non-Information Technology graduates (students with a degree in a discipline other than information technology) complete the Introductory Module before choosing units from other modules, subject to fulfilling prerequisite requirements.

Information Technology graduates (students with a Bachelor degree or Graduate Diploma in Information Technology) choose units from any module. They will not be permitted to do the Introductory Module.

On successful completion of 96 credit points in IT35:

(i) Students with a GPA of ≥ 5 will be eligible to continue to the Third Module (IT40) and on completion of an additional 48 credit points will graduate with a Masters of Information Technology.

(ii) Students with a GPA of 5 will not be eligible to continue to the Third Module (IT40) and will graduate with the Graduate Diploma in Information Technology.

Elective Units

The offering of elective units in any semester depends upon sufficient minimum enrolments in the unit and the availability of staff. The choice of elective units is subject to the approval of the Course Coordinator. Full-time students should note that electives may be offered in the evenings only.

Subject to the approval of the Course Coordinator, students can undertake advanced undergraduate units as substitutes for the elective units listed.

NON-INFORMATION TECHNOLOGY GRADUATES

Full-Time Course Structure		**Credit Points**	**Contact Hrs/Wk**
INTRODUCTORY MODULE (FIRST MODULE)			
Year 1, Semester 1			
ITN210	Foundations of Information Modelling	12	3
ITN410	Software Principles	12	3
ITN510	Data Networks	12	3
Select one unit from the following:			
ITN211	Systems Analysis & Design	12	3
ITN343	Principles of Information Management	12	3
ITN411	Systems Architecture & Operating Systems	12	3
MAB177	Mathematics for Data Communications	12	3

SECOND MODULE

Year 1, Semester 2

Select four units from any of the Module Lists, subject to fulfilling prerequisite requirements.

THIRD MODULE (IT40)

Year 2, Semester 1

Select four units from any of the Module Lists, subject to fulfilling prerequisite requirements.

NON-INFORMATION TECHNOLOGY GRADUATES

Part-Time Course Structure

		Credit Points	Contact Hrs/Wk
INTRODUCTORY MODULE (FIRST MODULE)			
Year 1, Semester 1			
ITN210	Foundations of Information Modelling	12	3
ITN410	Software Principles	12	3
Year 1, Semester 2			
ITN510	Data Networks	12	3
Select one from the following:			
ITN211	Systems Analysis & Design	12	3
ITN411	Systems Architecture & Operating Systems	12	3
MAB177	Mathematics for Data Communications	12	3

SECOND MODULE

Year 2, Semester 1

Select two units from any of the Module Lists, subject to fulfilling prerequisite requirements.

Year 2, Semester 2

Select two units from any of the Module Lists, subject to fulfilling prerequisite requirements.

THIRD MODULE (IT40)

Year 3, Semester 1

Select two units from any of the Module Lists, subject to fulfilling prerequisite requirements.

Year 3, Semester 2

Select two units from any of the Module Lists, subject to fulfilling prerequisite requirements.

INFORMATION TECHNOLOGY GRADUATES

Full-Time Course Structure

FIRST MODULE

Year 1, Semester 1

Select four units from any of the Module Lists, subject to fulfilling prerequisite requirements.

SECOND MODULE

Year 1, Semester 2

Select four units from any of the Module Lists, subject to fulfilling prerequisite requirements.

THIRD MODULE (IT40)

Year 2, Semester 1

Select four units from any of the Module Lists, subject to fulfilling prerequisite requirements.

INFORMATION TECHNOLOGY GRADUATES

Part-Time Course Structure

FIRST MODULE

Year 1, Semester 1

Select two units from any of the Module Lists, subject to fulfilling prerequisite requirements.

Year 1, Semester 2

Select two units from any of the Module Lists, subject to fulfilling prerequisite requirements.

SECOND MODULE

Year 2, Semester 1

Select two units from any of the Module Lists, subject to fulfilling prerequisite requirements.

Year 2, Semester 2

Select two units from any of the Module Lists, subject to fulfilling prerequisite requirements.

THIRD MODULE (IT40)

Year 3, Semester 1

Select two units from any of the Module Lists, subject to fulfilling prerequisite requirements.

Year 3, Semester 2

Select two units from any of the Module Lists, subject to fulfilling prerequisite requirements.

MODULE LISTS

		Semester Offered	Credit Points	Contact Hrs/Wk
COMPUTING SCIENCE MODULES				
Computing Science Module 1				
ITN420	Comparative Programming Languages	2	12	3
ITN421	Software Specification	2	12	3
	Elective Unit		12	3
	Elective Unit		12	3
Computing Science Module 2				
ITN430	Advanced Operating Systems	1	12	3
ITN431	Distributed Systems	1	12	3
	Elective Unit		12	3
	Elective Unit		12	3

Note: Students undertaking major studies in Software Engineering must include at least two Software Engineering units (contact the Course Coordinator for details) as electives in Computing Science Modules 1 and 2.

Computing Science Modules 1 and 2 – Elective Units

First Semester				
ITN440	Advanced Graphics	1	12	3
ITN442	Compiler Construction	1	12	3
ITN445	Pattern Recognition	1	12	3
ITN446	Minor Project 1	1	12	-
ITN447	Special Studies	1	12	3
Second Semester				
ITN441	Artificial Intelligence	2	12	3
ITN443	Neurocomputing	2	12	3
ITN444	Parallel Processing	2	12	3
ITN446	Minor Project 1(CS)	2	12	-
ITN447	Special Studies	2	12	3
ITN449	Minor Project 2 (CS)	2	12	-
DATA COMMUNICATIONS MODULES				
Data Communications Module 1				
ITN520	Internetworking	1,2	12	3
ITN521	Network Applications	1,2	12	3
	Elective Unit		12	3
	Elective Unit		12	3
Data Communications Module 2				
ITN530	Corporate Telecommunications	2	12	3
ITN531	Network Security	2	12	3
	Elective Unit		12	3
	Elective Unit		12	3
Data Communications Module 1 – Elective Units				
ITB530	Transport Protocols	1	12	3
ITB533	Comparative Network Systems	1	12	3
ITB542	Network Programming	2	12	3
ITB543	Data Security	2	12	3
ITB548	Introduction to Cryptology	1	12	3
ITB549	Error Control and Data Compression	2	12	3

Data Communications Module 2 – Elective Units

ITB532	Laboratory 4 (Network Management)	1,2	12	3
ITN540	Advanced Network Technologies	1	12	3
ITB548	Introduction to Cryptology	1	12	3
ITN553	OS Security and Management	TBA	12	3
ITN554	Special Topic	1	12	3
ITN556	Advanced Topics in Cryptology	2	12	3
ITN526	Minor Project 1 (DC)	2	12	-
ITN528	Minor Project 2 (DC)	2	12	-

INFORMATION MANAGEMENT MODULES

Information Management Module 1

ITN211	Systems Analysis and Design	1,2	12	3
ITN340	Information Agencies	1	12	3
	Elective Unit		12	3
	Elective Unit		12	3

Information Management Module 2

ITN341	Information Policy and Planning	2	12	3
	Elective Unit[1]		12	3
	Elective Unit		12	3
	Elective Unit		12	3

Electives

Information Management Module 1 – Elective Units

ITN100	Research Methodologies	1,2	12	3
ITB220	Database Design	1,2	12	3
ITN220	Major Issues in Information Systems	1,2	12	3
ITN241	Advanced Topics in Human–Computer Interaction	1	12	3
ITN342	Information Science	2	12	3
ITN344	Information Processing Applications	2	12	3

Information Management Module 2 – Elective Units

ITN345	Information Systems Audit	2	12	3
ITN346	Special Topic – Information Management	1,2	12	-
ITN347	Information Management Project 1	1,2	12	-
ITN348	Information Management Project 2	1,2	12	-

The following units available in the Library and Information Studies module are available to Information Management students:

ITN351	Information Sources 2	1	12	3
ITN352	Information Organisation 2	1	12	3
ITN355	Information Resources & Services for Business & Industry	2	12	3

INFORMATION SYSTEMS MODULES

Information Systems Module 1

ITN220	Major Issues in Information Systems	1,2	12	3
ITN221	Object-oriented Analysis and Design	1,2	12	3
	Elective Unit		12	3
	Elective Unit		12	3

Information Systems Module 2

ITN230	Current Advances in Database Technology	2	12	3
ITN231	Knowledge-based Systems	2	12	3
	Elective Unit – Selected from List E		12	3
	Elective Unit – Selected from List E		12	3

List D: Information Systems Module 1 – Elective Units

Recommended electives are:

ITB220	Database Design	1,2	12	3

[1] *Students taking Projects are required to do ITN100.*

ITB232	Database Management	1,2	12	3
ITB233	File Structures	1,2	12	3
ITB241	Information Systems Management	2	12	3
ITN241	Advanced Topics in Human–Computer Interaction	1	12	3
ITN243	Access Methods for Information Systems	1	12	3
ITN244	Special Topic	1	12	3

List E: Information Systems Module 2 – Elective Units

ITN242	Distributed Transaction Management Systems	2	12	3
ITN244	Special Topic	1	12	3
ITN245	Special Topic	2	12	3
ITN250	Distributed Database Systems	2	12	3
ITN246	Minor Project 1 (IS)	2	12	-
ITN248	Minor Project 2 (IS)	2	12	-

LIBRARY & INFORMATION STUDIES MODULE

This module is generally only available to students who have completed the new revised Graduate Diploma in Library & Information Studies (IT25) with a GPA of 5 or better. Students who have completed the Graduate Diploma in Library & Information Studies (IS25) prior to 1996 with a GPA of 5 or better are eligible to undertake the Masters Module, but will be required to undertake additional units.

ITN350	Information Contexts	1	12	3
ITN510	Data Networks	1,2	12	3
	Elective Unit		12	3
	Elective Unit		12	3

Note: BOTH elective choices must be drawn from the SAME elective group, i.e. EITHER the Information Resources and Services Group *OR* the Program Management Group. Each elective group builds on and expands the focus and/or increases the depths of the knowledge gained from units studied in earlier semesters. Thus each Masters graduate will have a recognisable strength in one or other of the designated group areas.

Elective units

Group 1: Resources and Services

ITN351	Information Sources 2	1	12	3
ITN352	Information Organisation 2	1	12	3
ITN353	Records Management[2]	1	12	3
ITN354	Organising Multicultural Information Resources & Services	2	12	3
ITN355	Information Resources & Services for Business & Industry	2	12	3
ITN356	Resources & Services for Young People[3]	1	12	3
ITN357	Special Topic	1, 2	12	-

Group 2: Program Management

ITN358	Management of Information Programs	1	12	3
ITN359	Preservation Management of Resource Materials[3]	1	12	3
ITN354	Organising Multicultural Information Resources & Services	2	12	3
ITN355	Information Resources & Services for Business & Industry	2	12	3
ITN353	Records Management	1	12	3
ITN360	Evaluation of Information Programs[3]	1	12	3
ITN357	Special Topic	1, 2	12	-

[2] *Not offered in 1996.*

[3] *Offered only in odd-numbered years.*

DISTRIBUTED SYSTEMS MODULE

ITN250	Distributed Database Systems	2	12	3
ITN431	Distributed Systems	1	12	3
ITN531	Network Security	2	12	3
Select one unit from the following:				
ITN242	Distributed Transaction Management Systems	TBA	12	3
ITN444	Parallel Programming	2	12	3
ITN553	OS Security and Management	TBA	12	3

MAJOR PROJECT MODULE[4]

For Full-Time Information Technology Graduates

ITN140	Major Project	1,2	48

For Part-Time Information Technology Graduates

ITN150/1	Major Project (Part-time)	1,2	24
ITN150/2	Major Project (Part-time)	1,2	24

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

Note: The IS25 course will be discontinued as from the end of 1995. It will be replaced with a substantially restructured version (IT25).

Part-Time Course Structure		**Credit Points**	**Contact Hrs/Wk**
Year 2, Semester 1			
ITP327	Organisation of Knowledge	12	3
	Elective Unit	12	3
Year 2, Semester 2			
ITP313	Information Sources & Services	12	3
ITP330	Field Experience	12	-

Elective List

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.

ITN351	Information Sources 2	12	3
ITN352	Information Organisation 2	12	3
ITN353	Records Management	12	3
ITN354	Organising Multicultural Information Resources & Services	12	3
ITN355	Information Resources & Services for Business & Industry	12	3
ITN356	Resources & Services for Young People	12	3

[4] *The prerequisite for the Major Project module is the completion of 96 credit points including ITN100 Research Methodologies.*

Graduate Diploma in Library and Information Studies (IT25)[5]

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 equivalent) from a recognised tertiary institution in a discipline other than library and information studies 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
Year 1, Semester 1			
ITN343	Principles of Information Management	12	3
ITP327	Information Organisation 1	12	3
ITP328	Information Sources 1	12	3
One unit selected from the following:			
ITN210	Foundations of Information Modelling	12	3
ITN340	Information Agencies[6]	12	3
ITB330	Information Issues & Values[6]	12	3
Year 1, Semester 2			
MGN409	Introduction to Management	12	3
ITN211	System Analysis & Design	12	3
ITP329	Information Resources Provision	12	3
ITP330	Professional Practice	12	-
Part-time Course Structure			
Year 1, Semester 1			
ITN343	Principles of Information Management	12	3
ITP327	Information Organisation 1	12	3
Year 1, Semester 2			
MGN409	Introduction to Management	12	3
ITP329	Information Resources Provision	12	3
Year 2, Semester 1			
ITP328	Information Sources 1	12	3
One unit selected from the following:			
ITN210	Foundations of Information Modelling	12	3
ITB330	Information Issues & Values[6]	12	3
Year 2, Semester 2			
ITN211	System Analysis & Design	12	3
ITP330	Professional Practice	12	-

[5] *Offered subject to final approval.*

[6] *Option available only for students who do not intend to proceed to the Master of Information Technology program.*

Bachelor of Information Technology (Honours) (IT30)

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: Ms Alison Anderson

Entry Requirements

To be eligible for admission, students should have completed QUT's Bachelor of Information Technology or equivalent and normally should have attained a grade point average (GPA) of at least 5.0 on a seven-point scale (or its equivalent), having completed the relevant pre-honours extended major (or equivalent).

Application for admission should 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 only 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 Dean.

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
Semester 1			
ITN100	Research Methodologies	12	3
ITN110	Project (Honours)	12	3
	Elective	12	3
	Elective	12	3
Semester 2			
ITN120	Dissertation	24	
	Elective	12	3
	Elective	12	3
Part-time Course Structure			
Year 1, Semester 1			
	Elective	12	3
	Elective	12	3
Year 1, Semester 2			
ITN100	Research Methodologies	12	3
ITN110	Project (Honours)	12	
Year 2, Semester 1			
ITN130/1	Dissertation (Part-time)[7]	12	
	Elective	12	3
Year 2, Semester 2			
ITN130/2	Dissertation (Part-time)[7]	12	
	Elective	12	3

Elective Units

Elective units may be chosen from the following specified units in the areas of Computing Science, Data Communications, Information Management, Information Systems, or

[7] *Unit extends over two semesters.*

Software Engineering, each of which is subject to undergraduate prerequisite requirements. With the agreement of the Course Coordinator, students may also choose as electives Masters-level units offered by any School of the Faculty, or by other Faculties. In any variation from the standard course outlined here, students must justify elective choices in terms of their overall plan for the Honours course. Students should note also that the offering of elective units in any semester depends on sufficient minimum enrolments in the unit and the availability of staff. Full-time students should note that many electives may be offered in the evenings only.

Computing Science/Software Engineering			
ITN420	Comparative Programming Languages	12	3
ITN421	Software Specification	12	3
ITN430	Advanced Operating Systems	12	3
ITN431	Distributed Systems	12	3
ITN440	Advanced Graphics	12	3
ITN441	Artificial Intelligence	12	3
ITN442	Compiler Construction	12	3
ITN443	Neurocomputing	12	3
ITN444	Parallel Processing	12	3
ITN445	Pattern Recognition	12	3
Data Communications			
ITN530	Corporate Telecommunications	12	3
ITN531	Network Security	12	3
ITN540	Advanced Network Technologies	12	3
ITN553	OS Security & Management	12	3
ITN554	Special Topic	12	3
ITN555	Special Topic	12	3
ITN556	Advanced Topics in Cryptology	12	3
Information Management			
ITN340	Information Agencies	12	3
ITN341	Information Policy & Planning	12	3
ITN342	Information Science	12	3
Information Systems			
ITN220	Major Issues in Information Systems	12	3
ITN221	Object-Oriented Analysis & Design	12	3
ITN230	Current Advances in Database Technology	12	3
ITN231	Knowledge-based Systems	12	3
ITN241	Advanced Topics in Human–Computer Interaction	12	3
ITN243	Access Methods for Information Systems	12	3
ITN244	Special Topic	12	3
ITN245	Special Topic	12	3
ITN250	Distributed Database Systems	12	3

■ 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 Hamish Bentley

Course Structure

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

Block 1
All students undertake the Common First Year, the first full-time year or first two years part-time, of the course. This block is worth 96 credit points.

Block 2
At the end of the Common First Year, students choose a Primary Major in either:
A: Computing Science
B: Data Communications
C: Database Systems
D: Information Management
E: Information Systems
F: Software Engineering

The Primary Major is worth 96 credit points and extends over the second and third years of the course for full-time students, and the third to sixth years for part-time students.

Block 3
Students choose the make up of the third block of the course, which also extends over the later years of the course and is worth 96 credit points. Choices are:

(i) Extended Major and a Minor

An extended major consists of 48 credit points of further study in the area of the primary major.

A minor consists of a cohesive set of units of approved study equal to 48 credit points. Examples of minors are given at the end of this section on IT20, Block 3, Section 4.

(ii) Pre-Hononrs Extended Major and a Minor

The pre-honours extended major is available for selected students who have performed well in the Foundation Year and the first half of the primary major. The pre-honours extended major consists of 48 credit points of advanced study in the area of the primary major and prepares students for the Honours course and higher-level studies.

A minor (see above) is taken with this extended major to make up the 96 credit points of Block 3.

(iii) Secondary Major

A secondary major consists of 96 credit points of study in an area of relevance and interest. Examples of secondary majors are given at the end of this section on IT20.

(iv) Two Minors

Students can undertake two minors that don't have units in common, worth 48 credit points each, to complete Block 3; see above for explanation of minors.

Course Reqnirements

Year 1	**BLOCK 1** (96 credit points)	Common Year
Years 2 & 3	**BLOCK 2** (96 credit points)	Primary Major
	BLOCK 3 (96 credit points)	**ONE OF THE FOLLOWING:** □ Extended Major and a Minor □ Pre-Honours Extended Major and a Minor □ Secondary Major □ Two Minors

Cooperative Education Program

An optional one-year paid work experience is available to eligible full-time students at the end of the second year of full-time study. Students participating in this program enrol in ITB904 – Industrial Training Experience, a 24 credit point unit. Part-time students may be able to seek credit for professional experience (ITB905).

☐ Block 1: Common First Year

First Year Coordinator: Ms Ruth Christie

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
BSB118	Business Communication & Application Systems	12	3
ITB101	Laboratory 1 (Computing Environments)	12	3
ITB210	Formal Representation	12	3
ITB410	Software Development 1	12	3
Year 1, Semester 2			
ITB102	Laboratory 2 (Computer Applications)	12	3
ITB310	Information Management 1	12	3
ITB411	Software Development 2	12	3
ITB412	Technology of Information Systems	12	3
Part-Time Course Structure (Commencing Students in 1996)			
Year 1, Semester 1			
ITB101	Laboratory 1 (Computing Environments)	12	3
ITB210	Formal Representation	12	3
Year 1, Semester 2			
ITB310	Information Management 1	12	3
ITB410	Software Development 1	12	3
Year 2, Semester 1			
BSB118	Business Communication & Application Systems	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
Part-Time Course Structure (Commencing Students 1995)			
Year 2, Semester 1			
ITB411	Software Development 2	12	3
ITB412	Technology of Information Systems	12	3
Year 2, Semester 2			
ITB102	Laboratory 2 (Computer Applications)	12	3
ITB310	Information Management 1	12	3

☐ Block 2: Primary Majors

Primary majors are available in the following areas:

A: Computing Science
B: Data Communications
C: Database Systems
D: Information Management
E: Information Systems
F: Software Engineering

A: Computing Science Primary Major

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

B: Data Communications Primary Major

Major Coordinator: Mr Neville Richter

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 2, Semester 1			
ITB422	Laboratory 3 (ADTs in a UNIX Environment)	12	3
ITB520	Data Communications	12	3
MAB177	Mathematics for Data Communications	12	3
	Block 3 Unit	12	3
Year 2, Semester 2			
ITB521	Laboratory 3 (Computer Networks)	12	3
ITB522	Advanced Data Communications	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
Year 3, Semester 1			
ITB530	Transport Protocols	12	3
ITB531	Applications Services	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
Year 3, Semester 2			
ITB532	Laboratory 4 (Network Management)	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
MAB177	Mathematics for Data Communications	12	3
Year 3, Semester 2			
ITB422	Laboratory 3 (ADTs in a UNIX Environment)	12	3
ITB522	Advanced Data Communications	12	3
Year 4, Semester 1			
ITB521	Laboratory 3 (Computer Networks)	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
	Block 3 Unit	12	3
Year 5, Semester 2			
ITB531	Application Services	12	3
	Block 3 Unit	12	3
Year 6, Semester 1			
ITB532	Laboratory 4 (Network Management)	12	3
	Block 3 Unit	12	3
Year 6, Semester 2			
	Block 3 Unit	12	3
	Block 3 Unit	12	3

C: Database Systems Primary Major

Major Coordinator: Mr David Edmond

Full-time Course Structure		Credit Points	Contact Hrs/Wk
Year 2, Semester 1			
ITB220	Database Design	12	3
ITB221	Lab 3 (Commercial Programming)	12	3
ITB222	Systems Analysis & Design 1	12	3
	Block 3 Unit	12	3
Year 2, Semester 2			
ITB233	File Structures	12	3
ITB246	Unix & C	12	3
ITB249	The Theoretical Foundations of Database Systems	12	3
	Block 3 Unit	12	3
Year 3, Semester 1			
ITB232	Database Management	12	3
ITB236	Object-Oriented Analysis & Design	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			
ITB220	Database Design	12	3
ITB221	Laboratory 3 (Commercial Programming)	12	3
Year 3, Semester 2			
ITB233	File Structures	12	3
ITB249	The Theoretical Foundations of Database Systems	12	3
Year 4, Semester 1			
ITB222	Systems Analysis & Design 1	12	3
	Block 3 Unit	12	3
Year 4, Semester 2			
ITB246	Unix & C	12	3
	Block 3 Unit	12	3
Year 5, Semester 1			
ITB232	Database Management	12	3
ITB236	Object-Oriented Analysis & Design	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			
	Block 3 Unit	12	3
	Block 3 Unit	12	3

D: Information Management Primary Major

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
ITB331	Information Management 2	12	3
ITB520	Data Communications	12	3
	Block 3 Unit	12	3
Year 3, Semester 1			
ITB330	Information Issues & Values	12	3
	Block 3 Unit	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			
ITB331	Information Management 2	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			
	Block 3 Unit	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

E: Information Systems Primary Major

Major Coordinator: Vacant

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
ITB233	File Structures	12	3
	Block 3 Unit	12	3
Year 3, Semester 1			
	Block 3 Unit	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
Select one of the following units:			
ITB230	Project	12	3
ITB231	Applications Development	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			
	Block 3 Unit	12	3
Select one of the following units:			
ITB230	Project	12	3
ITB231	Applications Development	12	3
Year 5, Semester 2			
ITB233	File Structures	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

F: Software Engineering Primary Major

Major Coordinator: Mr Richard Thomas

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 2, Semester 1			
ITB222	Systems Analysis & Design 1	12	3
ITB421	Data Structures & Algorithms	12	3
ITB422	Laboratory 3 (ADTs in a Unix environment)	12	3
	Block 3 Unit	12	3
Year 2, Semester 2			
ITB424	Software Engineering Principles	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
	Block 3 Unit	12	3
Year 3, Semester 1			
ITB423	Laboratory 4 (Software Development)	12	3
ITB448	Object Technology	12	3
ITB454	Software Quality Assurance	12	3
	Block 3 Unit	12	3
Year 3, Semester 2			
ITB455	Integrated Software Engineering Environments	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
ITB421	Data Structures & Algorithms	12	3
Year 3, Semester 2			
ITB422	Laboratory 3 (ADTs in a Unix environment)	12	3
	Block 3 Unit	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			
	Block 3 Unit	12	3
	Block 3 Unit	12	3
Year 5, Semester 2			
ITB455	Integrated Software Engineering Environments	12	3
ITB448	Object Technology	12	3
Year 6, Semester 1			
ITB454	Software Quality Assurance	12	3
	Block 3 Unit	12	3
Year 6, Semester 2			
	Block 3 Unit	12	3
	Block 3 Unit	12	3

☐ Block 3: Options

Either:

1	Extended Major (48 credit points) plus a Minor (48 credit points)
OR	
2	Pre-Honours Extended Major (48 credit points) for selected primary major students only plus a Minor (48 credit points)
OR	
3	Secondary Major (96 credit points)
OR	
4	Two Minors (48 credit points each)

Extended Major and Pre-Honours Extended Majors are detailed below by Primary Major heading. Examples of Secondary Majors and Minors follow.

Extended and Pre-Honours Extended Majors

A: COMPUTING SCIENCE EXTENDED MAJOR

(for Computing Science primary major students only)

ITB440	Language & Language Processing	12	3
ITB446	Project[8]	12	
	Computing Science Elective Unit[8]	12	3
	Computing Science Elective Unit[8]	12	3

Computing Science Electives

First Semester Electives

ITB441	Graphics	12	3
ITB442	Foundations of Artificial Intelligence	12	3
ITB443	Systems Programming	12	3
ITB444	Special Studies 1	12	3
ITB447	Project	12	
ITB448	Object Technology	12	3
ITB451	Project[9]	24	
ITB454	Software Quality Assurance	12	3
ITB457	Functional Programming	12	3
ITB461	Foundations of Neurocomputing	12	3
ITB463	Foundations of Pattern Recognition	12	3

Second Semester Electives

ITB443	Systems Programming	12	3
ITB445	Special Studies 2	12	3
ITB449	Expert Systems	12	3
ITB451	Project	24	
ITB453	Project	24	
ITB455	Integrated Software Engineering Environment	12	3
ITB456	Intelligent Graphic User Interfaces	12	3
MAB172	Statistical Methods	12	3

PRE-HONOURS EXTENDED MAJOR

(for selected Computing Science primary major students only)

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

[8] *ITB446 Project and one elective unit may, subject to the approval of the Major Coordinator, be replaced with a 24 credit point project which may be undertaken across two semesters (ITB451 Project) or in one semester (ITB453 Project).*

[9] *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.*

B: DATA COMMUNICATIONS EXTENDED MAJOR
(for Data Communications primary major students only)
Students may select one of the following three extended majors:

1a: Data Communications Extended Major (Network Systems)

ITB533	Comparative Network Systems	12	3
ITB542	Network Programming	12	3
ITB544	Project	12	
	Data Communications Elective Unit	12	3

1b: Data Communications Extended Major (Telecommunications)

ITB534	Telecommunications Modelling	12	3
ITB544	Project	12	
MAB178	Mathematics for Telecommunications	12	3
	Data Communications Elective Unit	12	3

1c: Data Communications Extended Major (Information Security)

ITB544	Project	12	
ITB548	Introduction to Cryptology	12	3
ITB549	Error Control & Data Compression	12	3
	Data Communications Elective Unit	12	3

PRE-HONOURS EXTENDED MAJOR
(for selected Data Communications primary major students only)

The Data Communications Pre-Honours Extended Major consists of one of the above Data Communications extended majors.

DATA COMMUNICATIONS ELECTIVE UNITS
Students may choose electives from any unit offered within the Data Communications major and extended majors plus the units listed below (the offering of elective units depends on sufficient minimum enrolments and availability of staff).

BSB115	Management, People & Organisations	12	3
ITB448	Object Technology	12	3
ITB541	Transmission Techniques	12	3
ITB543	Information Security	12	3

C: INFORMATION MANAGEMENT EXTENDED MAJOR
(for Information Management primary major students only)

ITB340	Project	12	
ITB341	Information Management 3	12	3
MAB172	Statistical Methods	12	3
SSB937	Applied Cognitive Psychology	12	3

PRE-HONOURS EXTENDED MAJOR
(for selected Information Management primary major students only)

ITB350	Project – H	12	
ITB351	Information Management 3H	12	3
MAB172	Statistical Methods	12	3
SSB937	Applied Cognitive Psychology	12	3

D: INFORMATION SYSTEMS EXTENDED MAJOR
(for Information Systems primary major students only)
Students may select one of the following two extended majors:

INFORMATION SYSTEMS EXTENDED MAJOR 1

ITB232	Database Management	12	3
ITB240	Project	12	
ITB241	Information Systems Management	12	3
	Information Systems Elective Unit	12	3

Information Systems Electives

First Semester Electives

ITB231	Applications Development	12	3
ITB236	Object-oriented Analysis & Design	12	3

ITB242	Decision Support Systems	12	3
ITB244	Special Topic 1	12	3
ITB247	Project	12	

Second Semester Electives

ITB235	Multimedia Systems Technologies	12	3
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

INFORMATION SYSTEMS EXTENDED MAJOR 2

ITB232	Database Management	12	3
ITB236	Object-oriented Analysis & Design	12	3
ITB243	Knowledge-based Systems	12	3
ITB249	Theoretical Foundations of Database Systems	12	3

PRE-HONOURS EXTENDED MAJOR
(for selected Information Systems primary major students only)

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

E: SOFTWARE ENGINEERING EXTENDED MAJOR
(for Software Engineering primary major students only)

ITB446	Project[10]	12	
ITB456	Intelligent Graphic User Interfaces	12	3
	Software Engineering Elective Unit[10]	12	3
	Software Engineering Elective Unit	12	3

Software Engineering Electives

First Semester Electives

ITB220	Database Design	12	3
ITB420	Computer Architecture	12	3
ITB430	Concurrent Systems	12	3
ITB431	Programming Language Paradigms	12	3
ITB441	Graphics	12	3
ITB451	Project[11]	24	
ITB520	Data Communications	12	3

Second Semester Electives

ITB223	Laboratory 4 (4GL Programming)	12	3
ITB224	Systems Analysis & Design 2	12	3
ITB420	Computer Architecture	12	3
ITB430	Concurrent Systems	12	3
ITB431	Programming Language Paradigms	12	3
ITB440	Languages & Language Processing	12	3
ITB450	Advanced Computer Architecture	12	3
ITB451	Project	24	
ITB453	Project	24	

PRE-HONOURS EXTENDED MAJOR
(for selected Software Engineering primary major students only)

ITB452	Project	24	
ITB456	Intelligent Graphic User Interfaces	12	3
	Software Engineering Elective Unit	12	3

For choice of elective units – see Software Engineering Extended Major above.

[10] *ITB446 Project and one elective, subject to the approval of the Major Coordinator, may be replaced with ITB451 – a 24 credit point project taken over two semesters, or with ITB453 – a 24 credit point project taken in one semester.*

[11] *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.*

Secondary Majors (96 Credit Points)

POSSIBLE SECONDARY MAJORS: It is the responsibility of the student to check prerequisite requirements and availability of secondary majors prior to enrolment. The choice of a secondary major is subject to the approval of the relevant primary major coordinator and/or the IT20 Course Coordinator. Listed below are Secondary Majors available within the Faculty of Information Technology; other majors are available in other Faculties of this University.

COMPUTING SCIENCE SECONDARY MAJOR

(for Software Engineering primary major students)

ITB420	Computer Architecture	12	3
ITB430	Concurrent Systems	12	3
ITB431	Programming Language Paradigms	12	3
ITB520	Data Communications	12	3

Select one of the following options:

Option 1 Electives to the value of 48 credit points
Option 2 Relevant minor (48 credit points)

DATA COMMUNICATIONS SECONDARY MAJOR

(for Information Management primary major students)

BSB115	Management, People & Organisations	12	3
ITB521	Laboratory 3 (Computer Networks)	12	3
ITB522	Advanced Data Communications	12	3
ITB530	Transport Protocols	12	3
ITB531	Applications Services	12	3
ITB532	Laboratory 4 (Network Management)	12	3
MAB172	Statistical Methods	12	3
MAB177	Mathematics for Data Communications	12	3

INFORMATION MANAGEMENT SECONDARY MAJOR

(for Computing Science, Data Communications, Information Systems and Software Engineering primary major students)

BSB115	Management, People & Organisations	12	3
ITB322	Information Resources	12	3
ITB323	Laboratory 4 (Information Support Methods)	12	3
ITB330	Information Issues & Values	12	3
ITB331	Information Management 2	12	3
SSB937	Applied Cognitive Psychology	12	3

Select two of the following units:

ITB241	Information Systems Management	12	3
ITB242	Decision Support Systems	12	3
ITB320	Laboratory 3 (Database Applications)	12	3
ITB340	Project	12	
ITB341	Information Management 3	12	3
MAB172	Statistical Methods	12	3

INFORMATION SYSTEMS SECONDARY MAJOR

(for Computing Science, Data Communications, Software Engineering primary major 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
	Information Systems Elective Unit	12	3
	Information Systems Elective Unit	12	3
	Information Systems Elective Unit	12	3

INFORMATION SYSTEMS SECONDARY MAJOR

(for Information Management primary major students)

BSB115	Management, People & Organisations	12	3

ITB221	Laboratory 3 (Commercial Programming)	12	3
ITB224	Systems Analysis & Design 2	12	3
ITB232	Database Management	12	3
ITB240	Project	12	
ITB241	Information Systems Management	12	3
MAB172	Statistical Method	12	3
SSB937	Applied Cognitive Psychology	12	3

LIBRARY AND INFORMATION STUDIES SECONDARY MAJOR

(for Information Management primary major students wishing to work in the Library field)

BSB115	Management, People & Organisations	12	3
ITB340	Project	12	
ITP327	Information Organisation 1	12	3
ITP328	Information Sources 1	12	3
ITP329	Information Resources Provision	12	3
ITP330	Professional Practice	12	
MAB172	Statistical Methods	12	3
SSB937	Applied Cognitive Psychology	12	3

SOFTWARE ENGINEERING SECONDARY MAJOR

(for Computing Science primary major students)

ITB222	Systems Analysis & Design 1	12	3
ITB448	Object Technology	12	3
ITB454	Software Quality Assurance	12	3
ITB455	Integrated Software Engineering Environment	12	3

Select one of the following options:

Option 1	Electives to the value of 48 credit points
Option 2	Relevant minor (48 credit points)

SOFTWARE ENGINEERING SECONDARY MAJOR

(for Data Communications primary major students)

ITB222	Systems Analysis & Design 1	12	3
ITB421	Data Structures & Algorithms	12	3
ITB423	Laboratory 4 (Software Development)	12	3
ITB424	Software Engineering Principles	12	3
ITB448	Object Technology	12	3
ITB454	Software Quality Assurance	12	3
ITB455	Integrated Software Engineering Environment	12	3
ITB456	Intelligent Graphic User Interface	12	3

SOFTWARE ENGINEERING SECONDARY MAJOR

(for Information Management primary major students)

ITB222	Systems Analysis & Design 1	12	3
ITB421	Data Structures & Algorithms	12	3
ITB422	Laboratory 3 (ADTs in a Unix Environment)	12	3
ITB423	Laboratory 4 (Software Development)	12	3
ITB424	Software Engineering Principles	12	3
ITB448	Object Technology	12	3
ITB454	Software Quality Assurance	12	3
ITB455	Integrated Software Engineering Environment	12	3

SOFTWARE ENGINEERING SECONDARY MAJOR

(for Information Systems primary major students)

ITB421	Data Structures & Algorithms	12	3
ITB422	Laboratory 3 (ADTS in a Unix Environment)	12	3
ITB423	Laboratory 4 (Software Development)	12	3
ITB424	Software Engineering Principles	12	3
ITB448	Object Technology	12	3
ITB454	Software Quality Assurance	12	3
ITB455	Integrated Software Engineering Environment	12	3
ITB456	Intelligent Graphic User Interfaces	12	3

Two Minors (48 Credit Points each)

Minors are available from other Faculties as well as from the Faculty of Information Technology. It is the responsibility of the student to check prerequisite requirements and the availability and suitability of minors prior to enrolment. The choice of minors is subject to the approval of the IT20 Course Coordinator.

COMPUTER SCIENCE MINORS

Computing Science Minor 1

(for Data Communications primary major students)

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

Computing Science Minor 2

(for Information Management primary major students)

BSB115	Management, People & Organisations	12	3
ITB421	Data Structures & Algorithms	12	3
ITB422	Laboratory 3 (ADTS in an Unix Environment)	12	3
	Computing Science Elective Unit	12	3

Computing Science Minor 3

(for Information Systems primary major students)

ITB421	Data Structures & Algorithms	12	3
ITB431	Programming Language Paradigms	12	3
	Computing Science Elective Unit	12	3
	Computing Science Elective Unit	12	3

Computing Science Minor 4

(for Software Engineering primary major students)

ITB420	Computer Architecture	12	3
ITB430	Concurrent Systems	12	3
ITB431	Programming Language Paradigms	12	3
	Computing Science Elective Unit	12	3

Computational Intelligence Minor

ITB442	Foundations of Artificial Intelligence	12	3
ITB461	Foundations of Neurocomputing	12	3

plus two of:

ITB456	Intelligent Graphic User Interfaces	12	3
ITB462	Cognitive Systems	12	3
ITB463	Pattern Recognition	12	3

DATA COMMUNICATIONS MINOR

(for non-Data Communications primary major students)

ITB521	Laboratory 3 (Computer Networks)	12	3
ITB522	Advanced Data Communications	12	3
	Data Communications Elective Unit	12	3
	Data Communications Elective Unit	12	3

INFORMATION MANAGEMENT MINORS

Information Management Minor

(for non-Information Management primary major students)

ITB323	Laboratory 4 (Information Support Methods)	12	3
ITB330	Information Issues & Values	12	3
ITB331	Information Management 2	12	3
	Information Management Elective Unit	12	3

Library Services Minor

BSB115	Management, People & Organisations	12	3
ITP327	Information Organisation 1	12	3

ITP328	Information Sources 1	12	3
ITP329	Information Resources Provision	12	3

Records Management Minor

BSB115	Management, People & Organisations	12	3
ITP312	Organisation of Knowledge	12	3
ITP316	Field Experience	4	
ITP323	Introduction to Records Management	8	2
	Information Systems Elective Unit	12	3

INFORMATION SYSTEMS MINORS

Information Systems Minor 1

(for Computing Science, Data Communications and Software Engineering primary major students)

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

Information Systems Minor 2

(for Information Management primary major students)

BSB115	Management, People & Organisations	12	3
ITB242	Decision Support Systems	12	3
	Information Systems Elective Unit	12	3
	Information Systems Elective Unit	12	3

Information Systems Minor 3

(for Computing Science and Software Engineering primary major students)

ITB221	Laboratory 3 (Commercial Programming)	12	3
ITB236	Object-oriented Analysis & Design	12	3
ITB243	Knowledge-based Systems	12	3
ITB249	Theoretical Foundations of Database Systems	12	3

SOFTWARE ENGINEERING MINORS

Software Engineering Minor 1

(for Computing Science primary major students)

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

Software Engineering Minor 2

(for Data Communications, Database Systems, Information Management or Information Systems primary major students)

ITB421	Data Structures & Algorithms	12	3
ITB424	Software Engineering Principles	12	3
ITB454	Software Quality Assurance	12	3

Select one of the following units:

ITB423	Laboratory 4 (Software Development)		
ITB448	Object Technology	12	3
ITB455	Integrated Software Engineering Environments	12	3
ITB456	Intelligent Graphic User Interfaces	12	3

INFORMATION SYSTEMS/SOFTWARE ENGINEERING MINOR

(for Data Communications primary major students)

ITB220	Database Design	12	3
ITB222	Systems Analysis & Design	12	3
ITB420	Computer Architecture	12	3
ITB448	Object Technology	12	3

☐ Bachelor of Information Technology – Mid-year Intake 1995

The following course structure is for students who commenced the Bachelor of Information Technology in July 1995.

In order to allow students to undertake any one of the majors, the first-year units are spread over three semesters. To maintain a normal workload, students are required to commence a minor in 1996.

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 2			
BSB118	Business Communication & Application Systems	12	3
ITB101	Laboratory 1 (Computing Environments)	12	3
ITB410	Software Development 1	12	3
ITB520	Data Communication	12	3
Year 2, Semester 1			
ITB210	Formal Representation	12	3
ITB412	Technology of Information Systems	12	3
	Minor Unit	12	3
	Minor Unit	12	3
Year 2, Semester 2			
ITB102	Laboratory 2 (Computer Applications)	12	3
ITB310	Information Management 1	12	3
ITB411	Software Development 2	12	3
	Minor Unit	12	3

Students will then follow the normal progression through their primary major area.

☐ 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

The Cooperative Education program is available to full-time students enrolled in the fourth semester of the Bachelor of Information Technology degree (IT20), that is, who will have credit points in the range of 144–192 by the end of the year prior to the commencement of the program. Students are eligible to participate in the program if they have passed all units, or have a GPA (Grade Point Average) of at least 4.5. Students entering the course with exemptions for prior studies must have been exempted from no more than 96 credit points.

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.
- 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.

Notes

(i) 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.

(ii) Part-time students may be eligible for credit for industry experience, subject to certain conditions. Students should consult the Administration Officer (Academic) in the Faculty for further information.