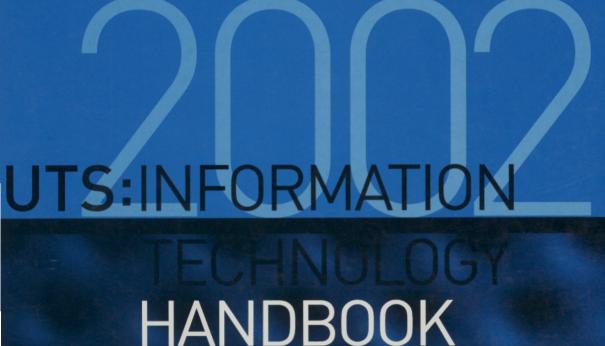
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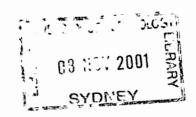






University of Technology, Sydney. Faculty of Information Technology. Handbook Received on: 07-11-01 CITY CAMPUS University of Technology,





UTS:INFORMATION

TECHNOLOGY HANDBOOK 2002

DISCLAIMER

This publication contains information which is current at 14 September 2001. Changes in circumstances after this date may impact upon the accuracy or currency of the information. The University takes all due care to ensure that the information contained here is accurate, but reserves the right to vary any information described in this publication without notice. More up-to-date information is published online at:

www.uts.edu.au/div/publications

Readers are responsible for verifying information which pertains to them by contacting the Faculty or the UTS Student Info & Admin Centre.

EQUAL OPPORTUNITY

It is the policy of UTS to provide equal opportunity for all persons regardless of race; colour; descent; national or ethnic origin; ethno-religious background; sex; marital status; pregnancy; potential pregnancy; carer's responsibilities; disability; age; homosexuality; transgender status; political conviction; and religious belief.

FREE SPEECH

UTS supports the right to freedom of speech and the rights of its members to contribute to the diversity of views presented in our society.

NON-DISCRIMINATORY LANGUAGE

UTS has adopted the use of non-discriminatory language as a key strategy in providing equal opportunity for all staff and students. Guidelines for the use of non-discriminatory language have been developed and all members of the University community are encouraged to use them.

www.equity.uts.edu.au/resources/language.html

ACCESS UTS ON THE WEB

www.uts.edu.au

Faculty Handbooks and Calendar www.uts.edu.au/div/publications/ UTS Rules and Policies www.uts.edu.au/div/publications/policies/

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TABLE OF CONTENTS

GENERAL INFORMATION	(
Welcome	
About the UTS handbooks	
Student inquiries	7
Applications	8
Fees and costs	9
HECS	9
Postgraduate Education Loans Scheme (PELS)	10
Financial help	11
UTS Library	11
University Graduate School	11
International Exchange Student Scheme	12
Support for student learning	12
Student learning centres	14
Equity and diversity	15
Jumbunna, Indigenous House of Learning	15
NSW child protection legislation	16
Other services	16
Environment, health, safety and security	17
Campus life	19
Principal dates for 2002	20
FACULTY INFORMATION	24
Message from the Dean	24
Faculty Mission Statement	25
Information for Information Technology Students	25
Short courses	26
Faculty contact details	27
Computing facilities	33
Study centre	34
Prizes and scholarships	34
Statement of good practice and ethics in informal assessment	36
Graduation ceremonies	37
Environmental health and safety	37
UNDERGRADUATE COURSES	38
Bachelor of Science in Information Technology, Diploma of InformationTechnology Professional Practice (MC17)	38
Bachelor of Science in Information Technology (MC09)	38
Bachelor of Science in Computing Science, Diploma of Information Technology Professional Practice (pre-2002) [MC12]	47
Bachelor of Science in Computing Science (pre-2002) (MC02)	47
Bachelor of Information Technology (MC03)	50
Bachelor of Computing, Diploma of Information Technology Professional Practice (pre-2002) (MC16)	53
Bachelor of Computing (pre-2002) (MC06)	53
Bachelor of Science (Honours) in Information Technology (MC10)	56

Combined degrees	
Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice, Bachelor of Laws (LL19)	58
Bachelor of Science in Computing Science, Bachelor of Laws (pre-2002) (LL06)	58
Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice, Bachelor of Arts in International Studies (MC15)	60
Bachelor of Science in Computing Science, Bachelor of Arts in International Studies (pre-2002) (MC05)	60
Bachelor of Computing, Bachelor of Arts in International Studies (pre-2002) (MC07)	60
Double degree	
Bachelor of Business and Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice or Bachelor of Science in Computing Science, Diploma in Information Technology Professional Practice (pre-2002) [B02C or B02K, MC17/MC12)	63
POSTGRADUATE COURSEWORK DEGREES	65
Master of Science in Computing (MC58)	65
Graduate Certificate in Information Technology Managment (MC63)	70
Graduate Diploma in Information Technology Management (MC75)	70
Master of Business in Information Technology Management (MC85)	70
Graduate Certificate in Internetworking (MC82)	74
Graduate Diploma in Internetworking (MC81)	74
Master of Science in Internetworking (MC80)	74
Graduate Certificate in e-Business Technology (MC77)	76
Graduate Diploma in e-Business Technology (MC78)	76
Master of Science in e-Business Technology (MC79)	76
Graduate Certificate in Information Technology (MC67)	78
Graduate Diploma in Information Technology (MC52)	78
Master of Information Technology (MC59)	78
Graduate Certificate in Interactive Multimedia (MC72)	81
Graduate Diploma in Interactive Multimedia (MC71)	81
Master of Interactive Multimedia (MC70)	81
FACULTY RESEARCH DEGREES	83
Doctor of Philosophy (MC54)	84
Master of Science (MC51)	86
ELSSA LANGUAGE STUDY SKILLS ASSISTANCE CENTRE	88
Undergraduate Programs for International Students	88
Postgraduate program	90
ELSSA subject descriptions	91
SUBJECT DESCRIPTIONS	95
Subjects offered by other faculties	117
International Studies subjects	132
NUMERICAL LIST OF SUBJECTS	148
Undergraduate	148
Postgraduate	154
General	157

ALPHABETICAL LIST OF SUBJECTS	158
Subjects offered by other faculties	160
BOARDS AND COMMITTEES	161
Faculty Board in Information Technology	161
Faculty Graduate Studies Committee	161
Computing Sciences Advisory Committee	161
Course Advisory Committee	161
STAFF LIST	163
INDEX	166
UTS CONTACTS	171
MAPS	172

GENERAL INFORMATION

WELCOME

Welcome to the University of Technology, Sydney (UTS), one of the largest universities in New South Wales – a university with an international reputation for quality programs and flexible learning. UTS develops and regularly revises its programs of study in partnership with industry, government and professional bodies, so that its degrees are based on the latest professional standards and current practices. As a result, UTS produces graduates who are ready for work, and this is demonstrated in the high numbers of its students who are members of the workforce within a few months of finishing their degree.

UTS offers its students a lively, supportive and diverse learning environment across three campuses, and a range of social, cultural and sporting facilities to enrich each student's experience. UTS regards learning as a lifelong experience, and offers a range of programs to cater for the educational needs of people at a variety of stages in their lives, and from diverse backgrounds and cultures.

UTS offers undergraduate and postgraduate degrees, developed by the Faculties of Business; Design, Architecture and Building; Education; Engineering; Humanities and Social Sciences; Information Technology; Law; Nursing, Midwifery and Health; and Science. Each of these faculties is responsible for programs across a number of key disciplines, and many offer courses in conjunction with one another, or with the Institute for International Studies. Courses developed and delivered by these faculties reflect the University's commitment to providing a relevant education to students through flexible and work-based modes of learning and through the ongoing internationalisation of the curriculum.

ABOUT THE UTS HANDBOOKS

Every year UTS produces 10 faculty/institute handbooks which provide the latest information on approved courses and subjects to be offered in the following year. These handbooks include comprehensive details about course content and structure, subject and elective choices, attendance patterns, creditpoint requirements, and important faculty and student information. Many of them also contain faculty policies and guidelines for participation in specific courses. This provides students with the necessary information to meet the requirements of the course, complete a program of study, and receive a degree.

UTS also produces a companion volume to these handbooks every year. The *UTS:* Calendar contains the University Act, By-law and Rules, a list of courses offered across the University, and other useful University information. Copies of the faculty/institute handbooks and the *UTS:* Calendar are held in the University's libraries and faculty offices and can be purchased at the Co-op Bookshop.

Every effort is made to ensure that the information contained in the handbooks and the Calendar is correct at the time of printing. However, UTS is continuously updating and reviewing courses and services to ensure that they meet needs, current and emerging, and as a result information contained in these publications may be subject to change.

For the latest information, see the University's website at:

www.uts.edu.au

STUDENT INQUIRIES

UTS Student Info & Admin Centre

telephone (02) 9514 1222 email info.office@uts.edu.au www.uts.edu.au

City campus

CB01.4 (Level 4 foyer, Tower Building) 15 Broadway, Ultimo

Kuring-gai campus

KG01.6 (Level 6, Building K1) Eton Road, Lindfield

Postal address

PO Box 123, Broadway NSW 2007

International Programs Office

10 Quay Street, Haymarket telephone +61 2 9514 1531 fax +61 2 9514 1530 email intlprograms@uts.edu.au www.ipo.uts.edu.au

CRICOS provider code: 00099F

Faculty student offices

Business

Undergraduate inquiries

CM05C.1 (Level 1, Building 5) City campus at Haymarket telephone (02) 9514 3500

KG01.5 (Level 5, Building K1) Kuring-gai campus telephone (02) 9514 5355 email undergraduate.business@uts.edu.au

Postgraduate inquiries

CM05B.5 (Level 5, Building 5) City campus at Haymarket telephone (02) 9514 3660 email graduate.business@uts.edu.au

Design, Architecture and Building

CB06.5 (Level 5, Building 6 (Peter Johnson Building)) City campus telephone (02) 9514 8913 email dab.info@uts.edu.au

Education

CM05D.1.01 (Room D101, Building-5) City campus at Haymarket (from Autumn semester 2002) CB10 (Room TBA, Building 10) 235 Jones Street City campus telephone (02) 9514 3900 email education@uts.edu.au KG02.3.33 (Room 333, Building K2) Kuring-gai campus telephone (02) 9514 5621

Engineering

CB02.7 (Level 7, Building 2) City campus telephone (02) 9514 2666 email upo@eng.uts.edu.au

Humanities and Social Sciences

email teached.office@uts.edu.au

Faculty Student Centre

CB03.2 (Level 2, Building 3 (Bon Marche)) City campus telephone (02) 9514 2300 email hss.studentcentre@uts.edu.au

Faculty Research Office

CB02.7 (Level 7, Building 2) City campus telephone (02) 9514 1959 email research.degrees.hss@uts.edu.au

Information Technology

CB04.3 (Level 3, Building 4) City campus telephone (02) 9514 1803 email info@it.uts.edu.au

Law

CM05B.3.03 (Room B303, Building 5) City campus at Haymarket telephone (02) 9514 3444 email admingen@law.uts.edu.au

Nursing, Midwifery and Health

KG05.3.97 (Room 397, Level 3, Building K5) Kuring-gai campus telephone (02) 9514 5202 email nmh@uts.edu.au

Science

CB04.3
(Level 3, Building 4)
City campus
SL01.2
(Level 2, Dunbar Building)
St Leonards campus
telephone (02) 9514 1756
email information@science.uts.edu.au

Institute for International Studies

10 Quay Street Haymarket, City campus telephone (02) 9514 1574 email iisinfo@uts.edu.au

Notes:

 The Building ID system is a four-character code, comprising two letters describing a geographic location and two numerals that use existing building numbers. Office locations appear as BuildingID.FloorNo.RoomNo.

The geographic location codes are:

CB City campus, Broadway

CC City campus, Blackfriars, Chippendale

CM City campus at Haymarket

KG Kuring-gai campus

SL St Leonards campus

In 2002, City campus will extend into CB10 (Jones Street) and a number of faculties and administrative units will be relocated.

APPLICATIONS

Undergraduate

The NSW and ACT Universities Admissions Centre (UAC) processes most applications for undergraduate courses which start at the beginning of the year. Students are required to lodge these UAC application forms between August and December; early closing dates may apply to some courses. To find out more about these courses and the application procedures, check the UAC Guide, or the UAC website at: www.uac.edu.au

Students can also apply for entry to some UTS courses by lodging a UTS application form directly with the University. These are usually courses that are not available to recent school leavers and do not have a UAC code.

Postgraduate

Applications for postgraduate courses should be made directly to UTS. For courses starting at the beginning of the year, most applications open in August with a first round closing date of 31 October. For courses starting in the middle of the year, applications open in May. For further information, contact the UTS Student Info & Admin Centre.

International students

International student applications for both postgraduate and undergraduate courses can be made either directly to the International Programs Office (IPO) or through one of the University's registered agents. For courses starting at the beginning of the year, applications should be received by 30 November of the previous year. For courses starting in the middle of the year, applications should be received by 31 May of that year. For more

CRICOS provider code: 00099F

information, contact IPO.

Non-award and cross-institutional study

Students who want to study a single subject at UTS which is not part of a UTS degree or qualification, must apply for non-award or cross-institutional study. There are three application periods, and closing dates vary for each semester. For more information contact the appropriate faculty or the UTS Student Info & Admin Centre.

FEES AND COSTS

Service fees

Service fees are charged to students to contribute to the cost of a range of facilities and services which are generally available to all students during the course of their study.

Variations and exemptions

Fees and charges may vary from year to year. In certain circumstances, some students may be eligible for reduced service fees.

For full details of variations and exemptions to the fees listed below, contact the UTS Student Info & Admin Centre.

Fee components¹

Union Entrance Fee

a once-only charge for new students \$22

Union Fee

a semester-based charge for currently enrolled students

\$120 per semester

Students' Association Fee

currently enrolled students

a yearly charge for

enrolled students

\$54.25 per year

Student Accommodation Levy a yearly charge for currently

\$61.50 per year

Student Identification Card Charge

a yearly charge for students

enrolled on a tuition fee basis

\$15 per year

Course fees

No course fees are paid by local students undertaking undergraduate studies at UTS. Students are, however, liable for HECS charges (see following). Many postgraduate courses attract a course fee. These course fees are calculated on a course-by-course basis and are charged in addition to the service fees outlined above. Payment of course fees may vary depending on a student's status, and on conditions laid down by the faculty. Contact the relevant faculty for full details.

Details of course fees are outlined under each course entry in this handbook. Readers should note that fees quoted throughout the handbook are correct at the time of publication however they are subject to change and should be confirmed with the Student Info & Admin Centre.

Course fees for international students

At the time of publication, course fees for undergraduate international students range from A\$5,000 to A\$8,500 per semester, and for postgraduate international students from A\$5,000 to A\$8,700 per semester. These vary from time to time and the International Programs Office should be contacted for upto-date information, or visit the website:

www.ipo.uts.edu.au/courses/index.html

International students in Australia on a student visa are required to undertake full-time study as a condition of their visa.

For more information contact the International Programs Office, or visit the website: www.ipo.uts.edu.au

Other costs

Students may incur other costs while they study at UTS. These may include books, printed sets of reading materials, photocopying, equipment hire, the purchase of computer software and hardware, and Internet services.

HECS

The Higher Education Contribution Scheme (HECS) is a financial contribution paid to the Commonwealth Government by tertiary students towards the cost of their education. It is payable each teaching period and the amount paid varies according to the number of credit points undertaken and the method of payment nominated by the student.

Most students have three choices in the way they pay HECS:

- paying all of the HECS up front and receiving a 25% discount
- deferring all payment until a student's income reaches a certain level, or
- paying at least \$500 of the HECS contribution up front and deferring the remainder.

Note: These options may not apply to New Zealand citizens and Australian Permanent Residents.

Commonwealth legislation sets strict conditions for HECS over which the University has no control. HECS charges are based on the subjects in which students are enrolled on the HECS census date. It is important for students to realise that any reductions in their academic workload after the census date for a particular semester will not reduce their HECS liability.

Charges have been adjusted to reflect the University's liability for Goods and Services Tax (GST).

Students who defer their HECS payments become liable to commence repayment once their taxable income reaches the repayment threshold. This does not necessarily mean at the conclusion of their studies – a student's income may reach this threshold before then.

New students, students returning from leave and students who are commencing a new or second course, must complete a Payment Options Declaration form. This form must be lodged with the University by the census date and should show a valid Tax File Number.

The HECS census date for Autumn semester is 31 March and for Spring semester is 31 August (as the dates fall on a Sunday in 2002, the HECS census dates will be 28 March and 30 August). HECS census dates for other teaching periods can be obtained from the UTS Student Info & Admin Centre.

There are a number of variations to these guidelines. It is the responsibility of each student to find out which HECS conditions apply to them. Information can be obtained from the booklet HECS Your Questions Answered, which is available from the HECS office on 1800 020 108 (www.hecs.gov.au) or the UTS Student Info & Admin Centre:

email info.office@uts.edu.au

2002 HECS rates

Differential HECS

In 2002, the full-time, full-year contributions for each band are as follows:

- Band 1: \$3,598 (Arts, Humanities, Social Studies/Behavioural Sciences, Education, Visual/Performing Arts, Nursing, Justice and Legal Studies)
- Band 2: \$5,125 (Mathematics, Computing, Other Health Sciences, Agriculture/ Renewable Resources, Built Environment/ Architecture, Sciences, Engineering/ Processing, Administration, Business and Economics)
- Band 3: \$5,999 (Law, Medicine, Medical Science, Dentistry, Dental Services and Veterinary Science).

Pre-differential HECS rate

If you commenced or deferred but did not complete your course before 1997, you may be eligible to pay a flat rate of HECS. In 2002, this rate is \$2,702 for a full time study load.

POSTGRADUATE EDUCATION LOANS SCHEME (PELS)

As a result of the Government's Innovation and Education Legislation Amendment Bill (No.2) 2001 being endorsed by Parliament, a new Postgraduate Education Loans Scheme (PELS) will be implemented on 1 January 2002.

PELS is an income-contingent loan facility similar to the Higher Education Contribution Scheme (HECS) for eligible students enrolled in fee-paying postgraduate non-research courses.

All eligible students enrolled in a postgraduate fee-paying non-research course in 2002 are eligible to apply for a loan. This means that both continuing and commencing students are eligible to apply.

Eligible students are able to borrow up to the amount of the tuition fee being charged by UTS for each semester for the duration of their course. Students are also able to pay part of their semester tuition fee to UTS for a course and obtain a PELS loan for the balance of their outstanding fees for each semester.

Students are required to complete a Loan Request form by the census date each semester requesting the Commonwealth to pay their tuition fees to UTS and declare that they are aware of their obligations to repay the loan under the scheme when their income reaches a certain amount. Students also have to provide a Tax File Number (TFN) to UTS in the same way that students choosing to defer their HECS payment already do.

The Student Fee Services Office will be coordinating the introduction of PELS at UTS. Queries in relation to the introduction of PELS should be directed to the Student Info & Admin Centre on telephone (02) 9514 1222, or further information can be obtained from the DETYA website at:

www.hecs.gov.au/pels.htm

FINANCIAL HELP

Austudy/Youth Allowance

Students aged under 25 years may be eligible to receive financial assistance in the form of the Youth Allowance.

Full-time students aged over 25 years may be eligible to receive Austudy which provides financial help to students who meet its income and assets requirements.

Application forms and information about eligibility for both Youth Allowance and Austudy are available from the Student Services Unit at Kuring-gai or City campuses.

Commonwealth legislation sets strict requirements for Austudy/Youth Allowance over which the University has no control. It is important that the students concerned understand these requirements.

Students who receive Austudy or the Youth Allowance and decide to drop subjects during the semester must be aware that to remain eligible they must be enrolled in a minimum of 18 credit points, or have a HECS liability for the semester of .375 equivalent full-time student units. The only exceptions made are for some students with disabilities which interfere with their studies, students who are single supporting parents or, in exceptional cases, those who have been directed by the University to reduce their study load.

For more information, talk to a Financial Assistance Officer in the Student Services Unit. Call for an appointment on:

telephone (02) 9514 1177 (City campus) or (02) 9514 5342 (Kuring-gai campus)

Application forms for both Austudy and Youth Allowance should be lodged as soon as possible with any Centrelink office.

Abstudy

Abstudy assists Aboriginal and Torres Strait Islander tertiary students by providing income support and other assistance. For more information about Abstudy, contact the staff at Jumbunna, Indigenous House of Learning:

CB01.17 telephone (02) 9514 1902 or 1800 064 312

UTS LIBRARY

The University Library collections are housed in three campus libraries which contain over 650,000 books, journals and audiovisual materials as well as a large range of electronic citation and full-text databases. Services for students include assistance in finding information through Inquiry and Research Help desks and online reference assistance, training programs, Closed Reserve, loans, reciprocal borrowing and photocopying facilities. The Library's extensive range of electronic information resources, such as catalogues, databases and Electronic Reserve, and online services, such as research assistance, online training, loan renewal, reservations and inter-Library requests, can be accessed on campus and remotely 24 hours a day from the Library website.

The Library is open for extended hours. More information about the Library can be found at:

www.lib.uts.edu.au

City Campus Library

Corner Quay Street and Ultimo Road Haymarket telephone (02) 9514 3310

Kuring-gai Campus Library

Eton Road Lindfield telephone (02) 9514 5325

Gore Hill Library (St Leonards campus)

Corner Pacific Highway and Westbourne Street Gore Hill telephone (02) 9514 4088

UNIVERSITY GRADUATE SCHOOL

The University Graduate School provides a focus for higher degree research students in all graduate research courses at UTS. It takes the lead in developing policy for graduate research studies in partnership with the faculties. The University Graduate School also works to enhance the quality of graduate research programs by monitoring quality and supporting research degree students and their supervisors.

The University Graduate School is located in Building B2, Blackfriars, City campus.

telephone (02) 9514 1336 fax (02) 9514 1588 email ugs@uts.edu.au www.gradschool.uts.edu.au

Note: In 2002, the University Graduate School will be relocating to CB10 (Jones Street), City campus.

INTERNATIONAL EXCHANGE STUDENT SCHEME

UTS encourages its students to develop an international perspective on their courses and careers. As part of their studies, students have the opportunity to spend one or two semesters studying at an overseas university and receive credit towards their UTS degrees. To enable this to happen, UTS has formal links with a large number of universities around the world. The UTS International Exchange Student Scheme assists students to study on exchange primarily at English-speaking universities in the United States and Europe, but also at other universities around the world.

UTS supports student participation in the International Exchange Student Scheme through the provision of a number of scholarships each semester as a contribution to the costs of going on exchange. While on exchange, students do not pay tuition fees in the overseas university. They pay their usual HECS fees or, if they are international students at UTS, their Australian tuition fees.

Further information and application forms for the Exchange Scheme and scholarships can be obtained from:

Institute for International Studies 10 Quay Street Haymarket telephone (+61 2) 9514 1537 email international.exchange@uts.edu.au www.uts.edu.au/fac/iis/

SUPPORT FOR STUDENT LEARNING

Student Services Unit

To ensure student success, the University provides a range of professional services to support different aspects of student life and learning at UTS.

These services include:

- orientation and University transition programs
- student housing and assistance in finding private rental accommodation
- workshops and individual counselling to enhance effective learning
- assistance for students with disabilities and other special needs
- student loans and financial assistance
- health services
- · personal counselling
- assistance with administrative problems or complaints
- assistance when extenuating circumstances impact on study
- help with getting a job, and
- · campus interview program.

All these services are sensitive to the needs of students from diverse backgrounds and are available at City and Kuring-gai campuses with flexible hours for part-timers.

The Student Services Unit website offers a jobs database, 'where UTS graduates get jobs', virtual counselling and links to the 'student help' website:

www.uts.edu.au/div/ssu

Transition to university programs Orientation 2002

UTS offers a free Study Success Program of integrated lectures and activities before semester begins, to help new students manage the transition to university study. There are specially tailored programs for part-time and international students as well as for recent school leavers. Students are informed of academic expectations, the skills needed to be an independent learner, and learning strategies which can help them successfully manage the workload. They are also provided with valuable information about how the University and its faculties operate, and the services provided.

Peer support network

The Peer Network Program enlists the aid of existing students to assist with the orientation of new students.

For more information, contact:

Student Services Unit telephone (02) 9514 1177 (City campus) or (02) 9514 5342 (Kuring-gai campus)

Careers Service

The Careers Service can help students make the link between various UTS courses and the careers they can lead to. The Careers Service also offers general career guidance, and assists with job placement for students seeking permanent or casual vacation work and employment. Contact the Careers Service on: telephone (02) 9514 1471 (City campus) www.uts.edu.au/div/cas

Chaplaincy

The Chaplaincy is coordinated through Student Services. Visiting Chaplains and Worship Rooms are available to students.

Chaplains represent different Christian denominations, as well as Buddhism, Judaism and Islam. Further information is available on: telephone (02) 9514 1177

Counselling

Counsellors are available at both the City and Kuring-gai campuses for individual consultation. Group programs are also held throughout the year. This service is free of charge, confidential and sensitive to diversity. For further information, contact:

telephone (02) 9514 1177 (City campus) or (02) 9514 5342 (Kuring-gai campus)

Telephone counselling is available on: telephone (02) 9514 1177.

Financial assistance

Financial assistance staff assist students with personal financial matters and are the contact point for student loans. They can also advise on Youth Allowance, Austudy and other Centrelink benefits. Contact them on:

telephone (02) 9514 1177

Health

The Health Service offers a bulk-billing practice to students at two locations. For appointments, contact:

telephone (02) 9514 1166 (City campus) or (02) 9514 5342 (Kuring-gai campus)

Housing

University Housing provides assistance to students in locating private accommodation. A limited amount of UTS-owned housing is also available. For further information, contact: telephone (02) 9514 1509 (listings) or (02) 9514 1199 (UTS accommodation)

Special Needs Service

The University has in place a range of services and procedures to improve access for students with disabilities, ongoing illnesses and other special needs. Students who have disabilities or illnesses which may impact on their studies are encouraged to contact the Special Needs Service for a confidential discussion of the assistance available on:

telephone (02) 9514 1177 TTY (02) 9514 1164 email special.needs@uts.edu.au

Contacting Student Services

telephone (02) 9514 1177 TTY (02) 9414 1164 fax (02) 9514 1172 email student.services@uts.edu.au www.uts.edu.au/div/ssu

City campus

CB01.6.01

- Counselling Service
- Health Service
- Special Needs and Financial Assistance Service

CB01.3.01

Careers Service

CB08.1 (9 Broadway)

Housing Service

Kuring-gai campus

KG01.5.19 (Level 5, Building K1)

- Counselling Service
- Health Service

Computing facilities at UTS

UTS General Access Labs are located throughout all campuses of the University and are available for all students and staff to use. Details of locations and availability of the computer laboratories may be obtained from the Information Technology Division (ITD) Support Centre on:

telephone (02) 9514 2222 www.itd.uts.edu.au Access to these labs requires login and password. Call the Support Centre for assistance in setting up a login.

Student email accounts

UTS provides students with an email account, which gives all students access to email facilities via the web. To find out more about an email account, visit the website:

www.uts.edu.au/email/

Alternatively, pick up the brochure, *Your UTS Email Account*, available in all ITD General Access Labs and drop-in centres. If you have any problems with activating your account or the computing facilities in general, contact the ITD Support Centre on:

telephone (02) 9514 2222 email itsupport@uts.edu.au

Computer training

In general, where computer training is necessary as part of a course that attracts HECS, it is provided as part of that course. Students can also consult the Computing Study Centre (see below).

STUDENT LEARNING CENTRES

Chemistry Learning Resources Centre

The Chemistry Learning Resources Centre assists students in undergraduate courses in the faculties of Science; Nursing, Midwifery and Health; Engineering; and Business.

CB04.2.11 City campus

Rosemary Ward telephone (02) 9514 1729 email Rosemary.Ward@uts.edu.au www.science.uts.edu.au/cmf/chem/clrc/

Computing Study Centre

The Computing Study Centre assists students in developing skills in the use of various standard computer packages.

CB01.16.11 City campus John Colville, Director telephone (02) 9514 1854 email John.Colville@uts.edu.au www.it.uts.edu.au/activities/csc/

English Language Study Skills Assistance (ELSSA) Centre

ELSSA, the UTS Centre for academic language development, provides free custom-designed programs in academic writing, reading, speaking, critical thinking and cultural knowledge to meet the needs of undergraduate and postgraduate UTS students completing their degree in English. ELSSA also collaborates with staff in the faculties to foster interest in, and knowledge of, literacy and learning through research, intellectual contributions and staff development. ELSSA values quality, diversity, internationalisation and flexibility as it serves the wider academic and professional communities. The Centre also offers several award programs. For details, refer to pages 88-94.

Alex Barthel, Director CB01.18.22 City campus telephone (02) 9514 2327

or

KG02.5.22 Kuring-gai campus telephone (02) 9514 5160 email elssa.centre@uts.edu.au www.uts.edu.au/diy/elssa/

Jumbunna, Indigenous House of Learning

Student Support Unit

Jumbunna's Student Support Unit provides a range of academic and cultural support to Aboriginal and Torres Strait Islander students studying at UTS to ensure equal access and participation in higher education.

The support available to students includes academic assistance, cultural activities, cultural affirmation programs, group and private study areas, student common room and kitchen, and a computer laboratory and printing facilities.

Jumbunna, Indigenous House of Learning CB01.17

City campus

telephone (02) 9514 1902 or 1800 064 312 fax (02) 9514 1894

Mathematics Study Centre

The Centre coordinates mathematics assistance across the University and is staffed by lecturers with expertise in mathematics and statistics.

City campus
Leigh Wood, Director
telephone (02) 9514 2268
email Leigh.Wood@uts.edu.au
KG02.2.52
Kuring-gai campus
telephone (02) 9514 5186

CB01.16

Physics Learning Centre

www.it.uts.edu.au/activities/msc/

This is a drop-in centre for first-year physics students.

CB01.11
City campus
(with an adjoining computer laboratory)
Peter Logan
telephone (02) 9514 2194
email Peter.Logan@uts.edu.au
www.science.uts.edu.au/physics/plc.html

EQUITY AND DIVERSITY

UTS has a strong commitment to ensure that the diverse nature of the Australian society is reflected in all aspects of its employment and education. The University also aims to assist members of under-represented groups overcome past or present discrimination, and to provide a supportive and open organisational culture in which students and staff are able to develop to their full potential.

UTS is committed to implementing its Equal Opportunity Statement which aims to ensure that all students and staff are treated fairly and equitably, and can work and study in an environment free of harassment. Discrimination, harassment and victimisation are unlawful, undermine professional relationships, diminish the experience of university life, and are not tolerated at UTS. All students and staff have a responsibility to contribute to the achievement of a productive, safe and equitable study and work environment.

The Equity & Diversity Unit provides a range of services for students and prospective students. These include the coordination of the inpUTS Educational Access Scheme for

students who have experienced long-term educational disadvantage; coordination of financial scholarships and awards for commencing low-income students; and the provision of confidential advice and assistance with the resolution of discrimination and harassment-related grievances.

Equity & Diversity Unit CB01.17 telephone (02) 9514 1084 email equity.diversity.unit@uts.edu.au www.equity.uts.edu.au

JUMBUNNA, INDIGENOUS HOUSE OF LEARNING

Jumbunna was relaunched as the Indigenous House of Learning (IHL) in 2001. Jumbunna has grown from being, in 1986, an Aboriginal student support centre, to become a successful academic, research and support centre with approximately 300 Indigenous Australian undergraduate and postgraduate students studying at UTS.

Jumbunna's role within UTS is to contribute to Australia's educational and social development by making UTS staff and students aware of Indigenous Australian cultures and associated issues. Jumbunna is committed to improving the quality of teaching and research at UTS by facilitating active links with the Indigenous community, higher education institutions and other professions with particular emphasis on Australia's growth as a multicultural nation.

Jumbunna IHL has a wide ranging, long term agenda that includes:

- involving Indigenous Australians in institutional decision-making and consultative structures, academic policy development and curriculums, and strengthening partnerships between it and the faculties
- broadening the awareness and acceptance of Indigenous Australian cultures, achievements, contributions, and contemporary issues by developing teaching subjects and awards
- broadening economic, social and political opportunities for Indigenous Australians, in particular expanding employment and income opportunities
- enhancing the teaching and coordination of postgraduate studies in Indigenous studies

- the provision of consultancy services to community and government, and
- improving accessibility, retention and graduation rates of Indigenous Australians in studies at UTS.

Reconciliation Studies elective

The subject Reconciliation Studies is offered by Jumbunna to all students. Offered for the first time in Autumn semester 2002, the subject is a transdisciplinary 6- or 8-credit-point elective available at both undergraduate and postgraduate levels.

Undergraduate

85208	Reconciliation Studies	6ср
85209	Reconciliation Studies	8ср

Postgraduate

85210	Reconciliation Studies	6ср
85211	Reconciliation Studies	8cp

For further details of these subjects, refer to the Subject Descriptions section at the back of this handbook.

NSW CHILD PROTECTION LEGISLATION

Prohibited Person Declaration and Screening

In accordance with New South Wales Child Protection legislation, students participating in practical training placements which require them to have direct contact with children under 18 in designated child-related employment areas are required to complete a Prohibited Employment Declaration form on enrolment. In some circumstances students may also be subject to employment screening. Screening is carried out only with students' consent. Eligibility for participation in such programs is determined on the basis of information obtained through these checks.

OTHER SERVICES

Student Ombud

Enrolled or registered students with a complaint against decisions of University staff, or related to the University, may seek assistance from the Student Ombud.

All matters are treated in the strictest confidence and in accord with proper processes.

CB02.4.02 City campus telephone (02) 9514 2575 email ombuds@uts.edu.au www.uts.edu.au/oth/ombuds

Freedom of Information and Privacy

Under the *Freedom of Information Act 1989* (NSW), individuals may apply for access to information held by the University.

Personal information may also be accessed under the *Privacy and Personal Information Act* 1998. In addition to the requirements of the Act, UTS has a number of policies which govern the collection and use of private information.

David Clarke
FOI and Privacy Officer
CB01.4A.01
City campus
telephone (02) 9514 1240
email David.Clarke@uts.edu.au

Student complaints

UTS is committed to providing a learning and working environment in which complaints are responded to promptly and with minimum distress and maximum protection to all parties.

All students and staff have a responsibility to contribute to the achievement of a productive, safe and equitable study and work environment at UTS. The University's procedures for handling student complaints are based on confidentiality, impartiality, procedural fairness, protection from victimisation and prompt resolution.

Students should first raise their complaint directly with the person concerned where possible, or with an appropriate person in the faculty or administrative unit concerned. To seek advice and assistance in lodging a complaint, contact the Student Services Unit or the Equity & Diversity Unit.

The Policy on Handling Student Complaints is published on the Rules, Policies and Procedures website at:

www.uts.edu.au/div/publications/policies Information on how to make a complaint is available on the Equity & Diversity Unit's website at:

www.equity.uts.edu.au/resources/gota.html

ENVIRONMENT, HEALTH, SAFETY AND SECURITY

The University is committed to providing a safe and healthy workplace for students, staff and visitors and adopting a socially responsible approach towards protecting and sustaining the environment. Staff and students must take reasonable care of themselves and others, cooperate with actions taken to protect health and safety and not wilfully place at risk the health, safety or wellbeing of others.

Emergency procedures

Report emergencies to Security by dialling '6' from any internal telephone or Freecall 1800 249 559 (24 hrs).

Let the Security Officer know:

- the nature of the problem (e.g. fire, medical emergency, assault)
- · the location of the emergency, and
- your name and the telephone extension you are calling from.

Evacuation procedures

The Evacuation Alarm consists of two tones:

BEEP...BEEP... (Prepare)

When you hear this tone:

- shut down or secure machinery and computers
- prepare to evacuate, and
- check whether anyone needs assistance.

WHOOP...WHOOP... (Evacuate)

When you hear this tone:

- listen for instructions, a public announcement will tell you to 'Evacuate the building'
- leave the building via the nearest fire exit
- do not use lifts
- provide assistance where required
- proceed to the assembly area
- follow instructions from Emergency Authorities and Security, and
- do not return to the building until the all clear is given.

Hazards and risks

If you see a hazard or condition that presents a risk to your health and safety, report it to a staff member or Security Officer so that something can be done to remedy it. Help to fix it if you can.

To report a serious hazard after hours, contact Security by dialling '6' from any internal telephone or Freecall 1800 249 559 (24 hrs).

Safe work practices

Always follow safe work practices as provided by your lecturer or a technical staff member. Ask for help if you are unsure about how to use a piece of equipment or undertake a task, particularly before carrying out new or unfamiliar work.

First aid

There are a number of First Aid Officers in every building on each UTS campus. See the first aid poster in your study area for their names, location and phone number. Security Officers also have first aid training and can be contacted by dialling '6' from any internal telephone or Freecall 1800 249 559 (24 hrs).

Medical attention is also available from the Health Service at City (Broadway) and Kuring-gai campuses.

Accident/incident reporting

If you are involved in an accident or incident, report it to a staff member or Security Officer and then complete a UTS Accident/Incident Report form, available from your faculty office or Security.

If the accident/incident is serious, call Security immediately by dialling '6' from any internal telephone or Freecall 1 800 249 559 (24 hrs).

Smoking

Smoking is not permitted inside any building on any campus of the University, or in any University vehicle.

Campus shuttle bus

The University operates a number of shuttle bus services. These run between:

- City and Kuring-gai campus
- Kuring-gai campus main entry and the Kuring-gai campus carpark

 City campus at Haymarket and Broadway and the student accommodation facilities (Geegal and Bulga Ngurra). This shuttle covers the area bounded by William Henry Street, Bay Street and Broadway. All students living within this area are urged to use the service to ensure a safe passage home.

Shuttle bus timetables are available from the Security Office on your campus.

Lost and found

The Security Office on your Campus is the first point of call to check for lost property or to hand in found items. Items are kept for three months and if unclaimed become the property of the person who found the item.

Security systems

All buildings are accessible by a personal identification number (PIN) and are protected by an electronic intrusion detection system and a closed circuit TV network. You can obtain a PIN from your faculty office. Remember, your PIN is assigned to you and is not transferable. Do not misuse your PIN as this could compromise the safety of others.

Keeping yourself safe

- If studying/working in an isolated area, particularly after hours, lock the doors and don't let anyone in who you don't know. Do not leave doors propped open.
- If you think you are being followed or feel frightened for any reason, contact Security by dialling '6' from any internal telephone or Freecall 1 800 249 559.
- Do not take shortcuts through isolated areas, particularly at the St Leonards campus where the cemetery is a definite no-go area, even during the day. Keep to well-travelled routes and well-lit areas.
- Walk near the curb, away from doorways and bushes.
- Be alert when using toilet facilities, particularly in isolated areas. Check for strangers while you are still near the door. Whenever possible, ask a friend to accompany you.
- If you plan to have a drink after classes, make plans ahead of time for getting home. Don't leave with people you are not comfortable with.
- Do not hitchhike or accept a lift from a stranger.

- If you feel uncomfortable about who is in a lift/elevator, do not get in. Wait until the next lift/elevator arrives.
- Remember, UTS Security staff are available 24 hours a day, 7 days a week.

Keeping your belongings safe

The University consists of a number of large public buildings in the CBD and experiences a level of property crime in keeping with its location. Purses, wallets and particularly mobile phones are a prime target for thieves.

- Mark your name or other personal identification (e.g. your driver's licence number)
 on personal items of value. Marked items
 are less likely to be stolen.
- Use the lockers in the Library to store personal property, particularly if you plan on spending some time studying.
- Keep your possessions with you at all times. Do not leave wallets, purses or phones unprotected or out of your sight, particularly in the Library, computer laboratories or cafeterias.
- Do not carry large amounts of money there are automatic teller machines (ATMs) on most campuses.

Bicycle storage

Bicycle racks are located outside major buildings and often covered by a security camera.

Recycling

UTS has facilities for recycling paper, glass, cardboard and aluminium. Reduce, reuse and recycle.

Contacts

Environment, Health and Safety

telephone (02) 9514 1326, (02) 9514 1062, (02) 9514 1063 email ehs.branch@uts.edu.au www.ehs.uts.edu.au

Security

City campus at Broadway

telephone (02) 9514 1192 email security.general@uts.edu.au

City campus at Haymarket

telephone (02) 9514 3399 email security.haymarket@uts.edu.au

Kuring-gai campus

telephone (02) 9514 5551 email security.kuring-gai@uts.edu.au

St Leonards campus, Dunbar Building

telephone (02) 9514 4004 email security.dunbar@uts.edu.au

CAMPUS LIFE

UTS Union

The UTS Union is the community centre for the University. It provides food and drink services, lounges and recreational areas, comprehensive social and cultural programs, sports facilities and programs, stationery shops, a newsagency and resource centres. Off campus the Union provides access to a ski lodge, rowing club, sailing club, athletics club and basketball stadium.

Union Office (City campus) telephone (02) 9514 1444 email office@utsunion.uts.edu.au

City campus (Haymarket) telephone (02) 9514 3369

Kuring-gai campus telephone (02) 9514 5011

www.utsunion.uts.edu.au

Union Sports Centre

The centre contains multipurpose spaces, squash courts, weights rooms, circuit training room and outdoor basketball court.

CB04.1 City campus telephone (02) 9514 2444

UTS Rowing Club

Dobroyd Parade, Haberfield telephone (02) 9797 9523

Child care

UTS Child Care Inc. (UTSCC) coordinates all child-care services at UTS. Child care is available from 8.00 a.m. to 10.00 p.m. at both City and Kuring-gai campuses.

Care is available for 0–5 year olds throughout the year and for 5–12 year olds during school holidays. Child care can be accessed on a fulltime, or part-time basis.

telephone (02) 9514 1456 (City campus) or (02) 9514 2960 (City campus – Blackfriars) or (02) 9514 5105 (Kuring-gai campus)

Child care subsidies

UTS child-care centres charge a fee, comparable to other child-care centres, of between \$40–50 per day for 0–5 year olds and \$24 a day for 5–12 year olds. All families who register with Centrelink can access Federal Government means-tested child-care subsidies of up to \$27 per day through child-care centres.

Further subsidies are available at UTS childcare centres to all current UTS staff and students of up to \$8 per day, funded by the University and the University Union and available on proof of employment/enrolment at UTS.

Low-income students may apply to the Equity & Diversity Unit for further assistance (funded by the Unit and the Students' Association) in cases of demonstrable financial hardship.

To obtain an application form, contact the Equity & Diversity Unit on:

telephone (02) 9514 1084

Co-op Bookshop

The Co-op Bookshop stocks the books on students' reading lists, and a variety of general titles and computer software. It has branches at the City and Kuring-gai campuses, and, at the start of semester, at Haymarket and Gore Hill (St Leonards campus).

City campus

telephone (02) 9212 3078 email uts@mail.coop-bookshop.com.au

Kuring-gai campus

telephone (02) 9514 5318 email kuringai@mail.coop-bookshop.com.au www.coop-bookshop.com.au

Students' Association

The Students' Association (SA) is the elected representative body of students at UTS and represents all students of the University on welfare and education issues. UTS students have the right to stand for election of the SA and to vote in the annual elections. The Students Representative Council enacts, directs and coordinates the work of the SA.

All enrolled students are members of the SA and pay an annual fee. Revenue from fees is used to employ professional educational and welfare staff; fund the student newspaper, Vertigo; run the Peer Tutor Scheme and Second-hand Bookshop; and facilitate and support various information, education and action campaigns.

City campus

CB01.3 telephone (02) 9514 1155

Kuring-gai campus

KG02.4 telephone (02) 9514 5237

Radio Station 2SER-FM (107.3 FM)

2SER-FM is a community-based radio station situated on Level 26 of the UTS Tower. 2SER is owned by Sydney Educational Broadcasting Ltd, a company established jointly by the University of Technology, Sydney and Macquarie University. The station broadcasts a diverse range of 'talk' and music programs, produced and presented by volunteers.

Students interested in broadcasting are welcome to visit the studios:

CB01.26.22 City campus telephone (02) 9514 9514 or for more information visit the website at: www.2ser.com

UTS Gallery and Art Collection

The UTS Gallery is a dedicated public gallery on the City campus. The UTS Gallery presents local, interstate and international exhibitions of art and design. The exhibitions change monthly.

The UTS Art Collection comprises a diverse range of paintings, prints, photographs and sculptures which are displayed throughout the University.

CB06.4 City campus 702 Harris Street, Ultimo telephone (02) 9514 1652 fax (02) 9514 1228 email uts.gallery@uts.edu.au www.utsgallery.uts.edu.au

PRINCIPAL DATES FOR 2002

January

- New Year's Day public holiday
- 2 Summer session classes recommence (to 1 February)
- Provisional examination timetable available for Summer session
- 4 UTS Advisory Day
- 7 Closing date for change of preference (main round) to the Universities Admissions Centre (UAC), by mail or in person. Closing date (midnight) for change of preference (main round) UAC Infoline and website (www.uac.edu.au)
- 7 Formal supplementary examinations for 2001 Spring semester students
- 11 Last day to submit appeal against exclusion from Spring 2001
- 11 Due date for payment of Autumn semester 2002 tuition fees for continuing international students
- 18 Final examination timetable for Summer session available
- 18 Closing date for applications for nonaward and cross-institutional enrolment in Autumn semester 2002
- 18 Main round of offers to UAC applicants
- 21–25 Enrolment of new main round UAC undergraduate students at City campus
- 23 Closing date for change of preference to UAC for late round offers
- 25 Public school holidays end
- 26 Australia Day public holiday
- 30 Closing date for applications for Postgraduate Equity Scholarships for Autumn semester 2002
- 31 Third round closing date for postgraduate coursework applications for Autumn semester 2002 (except Faculty of Business – closing date 15 February)

February

- 1 Late round of offers (UAC)
- Summer session ends for subjects with formal exams
- 4–15 Formal examinations for Summer session
- 6-7 Enrolment of late round UAC students at City campus
- 8 Last day to lodge a Stage 2 appeal against assessment grade for Spring semester 2001
- 11–19 Enrolment of new postgraduate students at City campus
- 15 Third round closing date for Faculty of Business postgraduate coursework applications for Autumn semester 2002
- 21–22 Enrolment of new international students at City campus
- 22 Last round of offers (UAC)
- 25 Orientation week for new students commences (to 1 March)
- 25 Release of results for Summer session
- 27 Union 'O' Day Clubs and activities day
- 27 Late enrolment day

March

- 4 Autumn semester classes commence
- 6 Late enrolment day
- 8 Last day to lodge a Stage 2 appeal against assessment grade for Summer session
- 15 Last day to enrol in a course or add subjects¹
- 15 Last day to pay upfront HECS or Postgraduate Course Fees for Autumn semester 2002
- 18 Applications open for Vice-Chancellor's Postgraduate Research Student Conference Fund (for conferences July – December)
- 28 Last day to withdraw from a course or subject without financial penalty¹
- 28 HECS census date (note 31 March is Easter Sunday)
- 29 Good Friday public holiday
- 30 Easter Saturday public holiday
- 31 Easter Sunday

April

- Easter Monday public holiday
- 1-5 Vice-Chancellors' Week (non-teaching)
- 3–5 Graduation ceremonies (Kuring-gai campus)
- 12 Last day to withdraw from a course or subject without academic penalty¹
- 15-26 Public school holidays
- 25 Anzac Day public holiday

May

- Applications open for undergraduate courses, where applicable, and postgraduate courses for Spring semester 2002
- 6-17 Graduation ceremonies (City campus)
- 10 Provisional examination timetable for Autumn semester available
- 22 Closing date for applications for Vice-Chancellor's Postgraduate Research Student Conference Fund (for conferences July-December)
- 31 Final Autumn semester examination timetable available
- 31 Closing date for undergraduate and first round postgraduate coursework applications for Spring semester 2002 (except Faculty of Business closing date 12 July)
- 31 Closing date for postgraduate research degree applications for Spring semester 2002

June

- 10 Queen's Birthday public holiday
- 14 Last teaching day of Autumn semester
- 15 Formal examinations for Autumn semester commence (to 5 July)
- 27 Closing date for applications for Postgraduate Equity Scholarships for Spring semester 2002
- Second round closing date for postgraduate coursework applications for Spring semester 2002 (except Faculty of Business – closing date 12 July)
- 28 Closing date for applications for nonaward and cross-institutional enrolment in Spring semester 2002

July

- 5 Autumn semester formal examinations end (commenced 15 June)
- 5 Due date for payment of Spring semester 2002 tuition fees for continuing international students
- 8-12 Vice-Chancellors' Week (non-teaching)
- 8-19 Public school holidays
- 12 Closing date for Faculty of Business postgraduate coursework applications for Spring semester 2002
- 15–19 Formal alternative examination period for Autumn semester students
- 22–26 Enrolment of new students for Spring semester 2002
- 24 Release of Autumn semester examination results
- 25 Formal supplementary examinations for Autumn semester students
- 29 Spring semester classes commence

August

- Applications available for undergraduate and postgraduate courses for Autumn semester 2003
- Applications available for postgraduate research scholarships for Autumn semester 2003
- 2 Last day to withdraw from full-year subjects without academic penalty
- 2 Last day to lodge a Stage 2 appeal against assessment grade for Autumn semester 2002
- 9 Last day to enrol in a course or add subjects for Spring semester 2002¹
- 16 Last day to pay upfront HECS or postgraduate course fees for Spring semester 2002
- 30 Last day to withdraw from a course or subject without financial penalty¹
- 30 HECS census date (note 31 August is a Saturday)

September

- 2 Applications open for Vice-Chancellor's Postgraduate Research Student Conference Fund (for conferences January – June 2003)
- Applications open for UTS Academic Internships
- 6 Last day to withdraw from a course or subject without academic penalty¹
- 30 Public school holidays commence (to 11 October)
- 30 Vice-Chancellors' Week (non-teaching) commences (to 4 October)
- 30 Graduation ceremonies (City campus) commence (to 4 October)

October

- 4 Vice-Chancellors' Week (non-teaching)
- 4 Provisional examination timetable for Spring semester available
- 7 Labour Day public holiday
- 11 Public school holidays end (commenced 30 September)
- 25 Final examination timetable for Spring semester available
- 30 Closing date for applications for Postgraduate Equity Scholarships for Summer session 2002/3
- 31 Closing date for Australian Postgraduate Awards, the R L Werner and University Doctoral scholarships
- 31 First round closing date for postgraduate coursework applications for Autumn semester 2003
- 31 Closing date for postgraduate research degree applications for Autumn semester 2003

November

- 8 Last teaching day of Spring semester
- 9–29 Formal examination period for Spring semester
- 15 Closing date for applications for UTS Academic Internships
- 19 Closing date for applications for Vice-Chancellor's Postgraduate Research Student Conference Fund (for conferences January–June 2003)

December

- 2 Summer session classes commence (to 7 February 2003)
- 9-13 Formal alternative examination period for Spring semester students
- 18 Release of Spring semester examination results
- 23 Public school holidays (to 28 January 2003)
- 25 Christmas Day public holiday
- 26 Boxing Day public holiday

Note: Information is correct as at August 2001. The University reserves the right to vary any information described in Principal Dates for 2002 without notice.

HECS/Postgraduate course fees will apply after the HECS census date (31 March and August or last working day before). Contact the relevant Faculty Office for further information about enrolment and withdrawal deadlines for flexible delivery subjects.

FACULTY INFORMATION

MESSAGE FROM THE DEAN

I am pleased to extend this welcome to you on behalf of all the staff of the Faculty of Information Technology at UTS.

The Faculty was previously known as the Faculty of Mathematical and Computing Sciences, consisting of a School of Computing Sciences and a School of Mathematical Sciences. In 2000 the Schools were disestablished and replaced by a number of Departments, and the name of the Faculty was changed. From 2002, the Department of Mathematical Sciences has moved to the Faculty of Science. Our new name reflects the strong growth and popularity of computing and IT at UTS. We are renowned as the premier provider of university-level IT education in the Sydney region. The new name also reflects the growing strategic importance of IT education to the future of UTS.

The Faculty has an enviable array of programs at Bachelor's level. The Bachelor of Science in Computing Science, with its industry-linked Diploma of Information Technology Professional Practice, continues to produce graduates who are keenly sought by industry. The Diploma enables students to develop lifelong learning skills so they gain a better understanding of the relationship between theory and practice. The Bachelor of Information Technology is now in its fourteenth year. Students in this program receive generous stipends from companies who are eager in return to hire graduates of the very highest quality.

The Faculty has a commitment to lifelong learning for experienced professionals. The Faculty offers a stable of postgraduate coursework and short courses that are intended to satisfy various career development needs. The Master of Science in Computing offers an opportunity for professional update in a variety of streams. The IT Management Program provides a unique opportunity for management education to those with substantial experience in the IT industry.

The graduate program in Internetworking aims to retrain practising IT people to support the explosive growth in Internet and Intranet technologies. This program has attracted large



Professor Michael Fry Dean

numbers of students who use a state-of-theart Internetworking laboratory. This program incorporates the Cisco Certified Network Associate (CCNA) program from Cisco Systems. Thus graduates are able to obtain an industry certification as well as a university award. From 2000 elements of the CCNA program, have been included in undergraduate programs.

In 2001 the Faculty launched a graduate program in e-Business Technology. This program has been developed with Pricewaterhouse-Coopers and will be taught as a collaboration between them and the Faculty. As our key collaborator, PricewaterhouseCoopers ensures the program's currency, giving students the benefit of their real-world experience in e-business solutions, and access to state-of-the-art B2B and B2C supporting products.

The Faculty has an international outlook and aims to become a faculty of high international standing. Significant numbers of high-quality international students have enrolled in our various programs.

The Faculty continues to develop its research profile, with significant successes in attracting research funding. The Faculty is an active participant in two Cooperative Research

Centres: the CRC for Enterprise Distributed Systems Technology; and the CRC for Technology Enabled Capital Markets. In 2001, the Faculty set itself a strategic priority to significantly boost its research profile. Substantial resources are being invested in order to achieve this aim.

In 2002 the Faculty will occupy new accommodation at City campus, greatly increasing both its quantity and the quality of available space. This will significantly enhance the Faculty's teaching and research programs as it moves to the next phase of its development.

There are many other activities and opportunities available within UTS that enrich the experience of university life. I commend these activities to you. Support services, provided by experienced and sympathetic staff, can help students through the difficult times that often arise. I hope that your time at UTS is both enjoyable and productive. I am confident that it will assist you in achieving both professional and personal success.

FACULTY MISSION STATEMENT

The mission of the Faculty is to provide highquality, innovative programs of teaching and learning, research and consulting, and short courses to clients of wide backgrounds, both nationally and internationally, in the discipline of Information Technology. It is committed to technology transfer for the benefit of society by interacting closely with industry, business and government in research and development. To support its mission, the Faculty aims to:

Teaching and learning

- maintain a comprehensive range of educational programs to satisfy the spectrum of needs in the community
- excel in both the quality of the learning environment and the professional relevance of its educational programs
- develop an international perspective to its teaching programs

Research and scholarship

- excel in the quality of its research activities
- encourage and facilitate participation by all staff in research or scholarly activities while focusing its research activities onto its defined areas of strength and a small number of targeted areas for development

- increase the participation rate of students in postgraduate programs
- promote intra-faculty, inter-faculty, national and international research collaboration
- emphasise to staff and students the benefits of an international perspective on their disciplines

Management and resources

- assure the quality of activities within the Faculty through the ongoing monitoring and the continuous development of a range of quality control processes
- maintain a balanced portfolio of expertise within its staff, which reflects perceived trends within the industries and disciplines addressed by the Faculty
- seek supplementary sources of external funding through research, joint ventures and entrepreneurial activities
- ensure the principles of equity are observed in all aspects of the Faculty's work, with particular emphasis on the areas of importance identified in the UTS Equity Plan
- develop links with prestigious overseas universities and research institutions

Community service

- preserve strong, effective links with industry, government, business, professional and community organisations
- improve credit transfer arrangements to facilitate the movement of properly prepared students who wish to transfer between universities, or who move into the university sector with prior education and knowledge.

INFORMATION FOR INFORMATION TECHNOLOGY STUDENTS

The Faculty of Information Technology has recently restructured and now operates with three departments – Computer Systems, Information Systems and Software Engineering. Together these disciplines form the basis of 'enabling technologies' for applications in most other disciplines. Student administration functions are all centralised at Faculty level. Teaching is carried out at City campus, Broadway.

A range of professional degrees are offered, from undergraduate through to Doctoral studies. The Faculty maintains a strong commitment to cooperative education, of both the work experience 'sandwich' form and the cooperative scholarship form. The Faculty continues to be active in research and has strong links with industry in all aspects of its work

All Faculty staff are located at City campus, Broadway.

Academic staff from the Departments of Computer Systems, Information Systems and Software Engineering are located in CB04 (Building 4).

Academic advisers

Undergraduate Programs in Computing and Information Technology

John Colville Associate Professor Jenny Edwards Dr Sean He Chris S Johnson Dr Paul Kennedy

Postgraduate Programs in Computing and Information Technology

Peter Bebbington Rene Leveaux Dr Simeon Simoff

Liaison Officers

Academic Liaison Officers

Jumbunna

Dr Toni Robertson

International students

Dr Richard Raban Dr Daniel Chandran

Refer to Faculty contact details (pages 27-32) for Program Leaders and staff contact details.

Centres within the Faculty

Centre for Object Technology Applications and Research (COTAR)

Established in 1994, the Centre for Object Technology Applications and Research (COTAR) provides a focal point for the software industry using, or considering using, the new software development techniques of object technology. COTAR aims to promote and conduct research in object-oriented software engineering, object-oriented information

systems and object-oriented computing. It provides not only a focus for such research and collaborative work with industry, but also high-quality professional development education. Further information can be obtained from Professor Brian Henderson-Sellers on telephone (02) 9514 1687.

Cooperative Research Centre for Enterprise Distributed Systems Technology (DSTC)

The mission of the CRC for Enterprise Distributed Systems Technology (DSTC) is to build the distributed information systems of the future through leading-edge research, and to work with industry and government to apply and commercialise the results. The UTS participation in DSTC draws on expertise from the Department of Computing Sciences. The primary focus of the UTS research is on Quality of Service (QoS) and the delivery of multimedia information in real time within various distributed systems frameworks, such as the World Wide Web, Java and CORBA. For further information, contact Professor Michael Fry on telephone (02) 9514 1801.

Faculty Office contacts

Faculty Office staff are located at CB04.3. There is a Faculty Information Office at this location to assist students and the general public on course-related matters.

When telephoning from outside the University, all extension numbers should be prefixed by (02) 9514. Email addresses should be suffixed with '@it.uts.edu.au'.

SHORT COURSES

The Faculty offers a variety of short courses throughout the year in the areas of Computing and Information Technology.

The Faculty offers courses in: Object-oriented Programming with C++; Programming with C; Prototyping with Visual Basic; Programming on the Internet; Electronic Commerce on the Internet; Advanced Java Programming; and IT Management courses.

Computing and IT courses can also be customised for corporate clients.

Information on all short courses is available from the Faculty Information Office on telephone (02) 9514 2154 or online at:

http://it.uts.edu.au/courses/short

Faculty contact details

Name:	Telephone	Location	Email	Responsibility
Executive Assistant to the Dean Nabila Sadek	1800	CB04.3.42	nabila	
Associate Dean (Education) Associate Professor David Wilson	1832	CB04.3.68	davidw	
Associate Dean (Research, Policy and Planning) Associate Professor Barry Jay	1814	CB04.3.73	cbj	
Executive Assistant to the Associate Deans Stella Thorndike	7863	CB04.3.67	stella	
Faculty Business Manager Gerard Goodwin-Moore	1880	CB04.3.41	gerard	
Faculty Operations Manager Leanne McCoy	1867	CB04.3.40A	leanne	All courses
<i>Technical Services Manager</i> Peter Gale	1686	CB04.4.35	gale	
Department of Computer Systems				
Head of Department Associate Professor Tom Hintz	1865	CB04.5.48	hintz	
Associate Professor Associate Professor Doan Hoang	7943	CB04.1.26C	dhoang	
Senior Lecturers John Colville	1854	CB04.5.24	colville	
Dr David Green	7871	CB04.5.25B	davidg	
Dr Xiangjian He	1816	CB04.5.37	sean	
Chris W Johnson	1855	CB04.5.22	chris	
Elaine Lawrence	1861	CB04.5.33	elaine	
Dr Toni Robertson	1966	CB04.5.35	toni	
Dr Andrew Simmonds	7873	CB04.5.25A	simmonds	
Dr Simeon Simoff	1103	CB04.5.32	simeon	Program Leader for the Master of Science in Computing
Ury Szewcow	1862	CB04.5.34	ury	Program Leader for the Internetworking Program

<i>Lecturers</i> Dr Wayne Brookes	1872	CB04.5.36	brookes	Program Leader for the Bachelor of Science in Information Technology, Diploma Information Technology Professional Practice
Dr Mao Lin Huang	1858	CB04.5.20	maolin	
Priyadarsi Nanda	1853	CB04.5.21	pnanda	
Jon Pike	1805	CB04.5.46	jon	
Dr Andrew Solomon	7938	CB04.1.29C	andrews	
Dr Robert Steele	7872	CB04.5.25C	rsteele	
John Tu	1856	CB04.5.23	vohao	
<i>Associate Lecturer</i> Karla Navarro	1873	CB04.5.42	karla	
Roberto Olivares	1873	CB04.5.42	robertoo	
Administrative Assistant Indrawati Nataatmadja	2048	CB04.5.11	indra	
Department of Information Systems Head of Department Jim Underwood	1831	CB04.3.56	jim	
<i>Professor</i> Professor Igor Hawryszkiewycz	1809	CB04.3.72	igorh	
Associate Professor Associate Professor Kenneth Dovey	7937	CB04.1.29D	kend	Program Leader for the Information Technology Management Program.
Senior Lecturer Peter Bebbington	1828	CB04.3.53	peterb	Program Leader for the Master's, Graduate Diploma and Graduate Certificate in Information Technology.
Dr Christopher Lueg	1851	CB04.3.66	lueg	
Lecturers Bruce Campbell	1882	CB04.3.58	brucec	Program Leader for Industry Training, Diploma of Information Technology Professional Practice
Dr Daniel Chandran	1827	CB04.3.55	noble	
Gordana Culjak	1833	CB04.3.56	gordana	
Jamal El-Den	1830	CB04.3.64	jamal	

Telephone

Name

Location

Email

Responsibility

Name	Telephone	Location	Email	Responsibility
Chris S Johnson	1834	CB04.3.60	chrisj	Program Leader for the Bachelor of Information Technology
Kyeong-Soon Kang	1912	CB04.3.54	kyeong	
Rene Leveaux	1958	CB04.3.59	rene	
Kewan McDonald	1258	CB04.3.62	kewan	
Peter Nicholls	1830	CB04.3.64	petern	
Bernard Wong	1825	CB04.3.57	bernard	
Associate Lecturer Benno Moeckershoff	1846	CB04.5.47	bennom	
Administrative Assistant Tim Kevin	2046	CB04.3.68	timk	
Department of Software Engineering Head of Department Richard Raban	1829	CB04.5.19	richard	
<i>Professors</i> Professor John Debenham	1837	CB04.4.37	debenham	
Professor Brian Henderson-Sellers	1687	CB04.3.70	brian	
Professor John Hughes	1344	CB04.4.36	hughes	
Associate Professors Associate Professor Jenny Edwards	1844	CB04.1.26B	jenny	
Associate Professor John Leaney	2389	CB04.1.29B	johnl	Director, UTS Software Engineering Unit
Senior Lecturers Dr George Feuerlicht	1835	CB04.5.47	jiri	Program Leader for the e-Business Technology Program
Dr Raymond Lister	1850	CB04.5.39	raymond	
Dr Robert Rist	1849	CB04.5.16	rist	Program Leader for the Bachelor of Science (Honours) in Information Technology
Dr Kevin Suffern	1845	CB04.5.12	kevin	
Dr Didar Zowghi	1860	CB04.5.15	didar	

Name	Telephone	Location	Email	Responsibility
Lecturers	Management of the second secon	200	The state of the s	SECTION CONTROL OF THE PROPERTY OF THE PROPERT
Ban Al-Ani	1848	CB04.5.18	alani	
Dr Paul Kennedy	1875	CB04.5.14	paulk	
Dr Brian Lederer	2263	CB04.5.43	brianl	
Gordon Lingard	7935	CB04.1.29A	glingard	
Dr Jie Lu	1838	CB04.5.41	jielu	
Pramod Kumar Singh	1852	CB04.5.40	pksingh	
Associate Lecturers Maria Isabel Bianco Barajas	1871	CB04.5.44	mabel	
Helen Lu	1846	CB04.5.46	helenlu	
Anupam Mittra	1871	CB04.5.44	anupam	
Administrative Assistant Ann Goldwater	2033	CB04.5.13	ann	
Faculty Administration Finance Officer Or Kim O'Toole	1808	CB04.3.74	kimo	
Promotions Officer Jenny Donovan	1263	CB04.3.40B	jennyd	
Administrative Assistant Teraesa Ashworth	1310	CB04.3.35	teraesa	
Student Administration Professional Programs Manager Alison Waugh	1925	CB04.3.39	alison	Information Technology Management Program and Short Courses
Senior Student Liaison Officer Ivy Chu	1802	CB04.3.37	ivy	All BSc (Comp Sc), BSc (Inf Tech) and Graduate Certificate and Diploma in Information Technology
<i>Industry Liaison Officer</i> Des Saunders	1804	CB04.3.36	des	BInfTech and Industrial Training
Partnership Programs Officer Julie Lui	2287	CB04.3.38A	juliel	e-Business Technology, Internetworking and Work-based Learning Programs

Name	Telephone	Location	Email	Responsibility
Graduate and Research Liaison Officer Dianne Pratt	1806	CB04.3.38B	dianne	All research, the Master of Science in Computing, Master of Information Technology and Interactive Multimedia Program
Student Liaison Officer Edna Pathmanathan	2250	tba	edna	tba
Administrative Assistant vacant	1886	CB04.3.35		
<i>Liaison Officers</i> Lyn Chamas	2154	CB04.3.35	lynette	General inquiries
Lisa Jones	1308	CB04.3.35	lisaj	General inquiries
William Kusuma	1866	CB04.3.35	william	General inquiries
Technical Services <i>Systems Manager</i> Stephen Gowing	1685	CB04.4.47	sbg	
Network and Development Manager Graham Redwood	1815	CB04.2.36	graeme	
Systems Programmer Benjamin Kuit	1841	CB04.4.47	bj	
NT Systems Programmer Paul Hoang	1812	CB04.4.47	paulie	
Linux Programmer Wim Pranata	tba	tba	wim	
<i>Trainee Systems Programmer</i> Piers Wren	1868	CB04.44	pwren	
Information Systems Developers Eduardo Chavez	1839	CB04.4.47	eduardo	
Elwyn Chow	1695	CB04.4.47	elwyn	
Michael Lynch	1956	CB04.4.47	spike	
<i>Trainee Web Developer</i> Peter Chi-Chung Yen	1839	CB04.4.47	poita	
Senior Technical Services Officer Barry Power	1819	CB04.2.40	barry	

Name & S.S. S. F. S. E. S.	Telephone	Location	Email Responsibility
Technical Officer Malik Sharafutdinov	1876	CB04.2.40	malik
Technical Services Officers Alex Altman	1817	CB04.2.40C	alex
Shane Isley	2254	tba	shane
Technical Assistant Matthew Power	1820	CB04.2.40	matt
Research Staff Postdoctoral Research Fellows Dr Daniela Damian	7931	CB04.1.37D	dana
Gao Shang	7932	CB04.1.37A	gaos
Research Scientist Glen MacLarty	2039	CB04.G.32	marty
CRC for Enterprise Distributed Systems Techno	ology (DSTC)		
<i>Director, Sydney Operations</i> Dr Kim Dinh	2044	CB04.G.29B	dinh@dstc.edu.au
Senior Research Scientist Dr Tim Mansfield	2689	CB04.G.29B	timbomb@dstc.edu.au
<i>Software Engineer</i> Jose Siqueira	2689	CB04.G.29A	jose@dstc.uts.edu.au
Research Scientists Luke Cole	2689	CB04.G.29A	lrcole@dstc.edu.au
Dongbai Xue	1940	CB04.G.28	dbxue@dstc.uts,edu.au

COMPUTING FACILITIES

The Faculty provides network connected laboratories used in both teaching and research. The network and UNIX servers provide the application software required and network services (www, ftp, email, news) used to access resources and information throughout the University and the world. The Faculty URL is:

http://it.uts.edu.au

The following information is accurate at the time of printing. However, during 2002 the Faculty is expected to relocate to Building CB10, formerly the Fairfax Building, and the locations and phone numbers advised in this section will change. All changes will be announced on the Faculty website.

Teaching laboratories

UNIX laboratories

A combination of X-terminals and UNIX workstations provides students with access to the UNIX environment. They are used by many of the Faculty's subjects.

PC laboratories

A number of PC laboratories provide access to the PC/ Windows environment.

Access

General access to these laboratories is 9.00 a.m. to 9.00 p.m., Monday to Friday, during semester. On some occasions, these laboratories are booked for different subjects and, during these booked times, students not enrolled in those subjects should vacate that laboratory. Timetable bookings are located on the door of each laboratory, and are available on the Faculty's Intranet website. After the first week of each semester's examination period, and also during vacation periods, the laboratories are available only between 9.00 a.m. and 6.00 p.m. Seven-day-per-week, 24-hour access is provided to a PC and a Linux laboratory at CB01.16.

Specific purpose laboratories

Graphics Laboratory

A number of Silicon Graphics UNIX and PC/Linux computers for graphics subjects.

Collaborative Systems

A research laboratory applying computer communications technology to improving work practices.

Distributed Multimedia Infrastructure Research Laboratory

A laboratory used for research into distributed systems, in particular, software protocols, network management, and interaction between multimedia and network technologies.

Usability Laboratory

A studio set up for the testing, evaluation and analysis of interaction between computers and human operators.

Access

Access to these specific purpose laboratories is arranged by the academic involved in a particular subject or research project.

Remote access facility

The remote access facility provides modem access for students and staff through either terminal emulation or remote network connection using PPP. This allows users to access some of the Faculty's computing systems and perform work from home.

Help desk facility

The Faculty's help desk, located in the Interface Room at CB04.4.47, provides users with information on the usage of equipment, software and facilities, help with problems and is a point of contact for reporting faults: telephone (02) 9514 1869

Information Technology Division (ITD) facilities

ITD is a University division that provides general computing facilities for all students at UTS. It provides a University-wide network interconnection, a number of large UNIX servers and laboratories throughout the different campuses. The University provides access to Internet resources through its connection to AARNet.

Laboratories

ITD provides UNIX, PC and Macintosh laboratories throughout the University which are available for use by all students. Access to ITD's UNIX servers is available from all

laboratories provided by ITD and the Faculty of Information Technology. Laboratories in CB02 and CB05 provide 24-hour, seven-day-per-week access. Access to UNIX and PC laboratories in CB04 is from 9.00 a.m. to 9.00 p.m., Monday to Friday only.

Resource Centre facility

ITD's Resource Centre and help desk – located at CB01.9 – provide assistance to the users of the academic computing facilities. During semester, the Resource Centre is open from 9.00 a.m. to 10.00 p.m., Monday to Friday. On weekends, and during semester breaks, it is open from 9.00 a.m. to 5.00 p.m. The help desk can be contacted on telephone (02) 9514 2222.

STUDY CENTRE

Computing Study Centre

The Computing Study Centre offers self-managed computer-based training in a range of introductory computer skills which includes:

- Microsoft Windows
- word processing (Microsoft Word)
- drawing
- electronic mail (email)
- spreadsheets (Microsoft Excel)
- UNIX (an operating system which runs a wide range of computers), and
- data handling.

The Computing Study Centre has designed a number of modules so that students can teach themselves. This means that students choose when, for how long and how they learn the skills required for each module. Students also mark their own assessment tasks and decide when to move onto the next module.

As students learn computer skills at differing rates, depending on their previous experience, confidence and motivation, being able to work at one's own pace through these materials in the relaxed and supportive environment of the Centre is a successful way to learn.

The Computing Study Centre is located at CB01.16.11. As the Faculty of Information Technology is moving in 2002, the Computing Study Centre may also move at this time. The Centre is open Monday to Friday during semester from 12 noon to 5.00 p.m., and on Tuesdays and Thursdays until 7.00 p.m. to cater for part-time students.

Contact details

For further information, students should contact John Colville on:

telephone (02) 9514 1854 email John.Colville@uts.edu.au

http://it.uts.edu.au/activities/csc

PRIZES AND SCHOLARSHIPS

ASX Ltd Scholarship

Established in 2001, the ASX Ltd Scholarship is awarded to a registered full-time HECS student in the Bachelor of Science in Computing Science. To be eligible for the award, students must have a weighted average mark which places them among the top twenty full-time students at the end of the first year of the course. Final selection for this scholarship is determined at an interview with staff from the Australian Stock Exchange. Each scholarship has a total value of \$10,000 and is awarded as two disbursements of \$5,000 each at the commencement of the student's second and fourth years.

CSC Australia Prize for Communications

Since 1971, Computer Sciences Corporation Australia Pty Ltd has made available an award in the interests of furthering education and knowledge in the field of telecommunications. The prize is awarded to the student enrolled in the Bachelor of Science in Computing Science who achieves the best combined performance in the subjects 31436 Systems Software and Networks, and 31919 Distributed Software Programming. The prize is a cash award of \$750.

Gilbert & Tobin Essay Prizes for Strategic IT Contract Management

The Gilbert & Tobin prizes were established in 1998 and are awarded to two students enrolled in the Information Technology Management Program who, in the year for which the awards are made, have written the Best Research Essay and the Highly Commended Research Essay respectively in the subject 32704 Strategic IT Contract Management. The prizes are cash awards of \$1,000 and \$500 respectively.

Insearch Doctoral Award

As a result of the generous support of Insearch UTS, the Faculty of Information Technology

is able to offer a full-time PhD scholarship for study in any area of computing science. The scholarship has a cash value of \$18,000 per year, tax free, and may be supplemented by a limited amount of teaching and/or research assistant activity within the Faculty.

Insearch Prize for General Proficiency in the Faculty of Information Technology

This prize, established in 1999, is awarded to the graduating student each year who, having entered the Faculty after completing the Diploma in Information Technology at Insearch UTS, has gained the highest weighted average mark of such students over all subjects studied in either the Bachelor of Science in Computing Science or in the Bachelor of Computing. The prize is a cash award of \$500.

Insearch Prize

The prize was established in 1998. It is awarded to the most outstanding international student graduating in the Bachelor of Computing or Bachelor of Science in Computing Science. The prize is a cash prize award of \$450.

Mastech Asia Pacific Pty Ltd Tuition Scholarship

This tuition scholarship, established in 1995 by Asia Pacific Computer Consultants, now Mastech Asia Pacific Pty Ltd, may be awarded annually to an able, needy, first-year, full-time student who is currently enrolled in the Bachelor of Science in Computing Science degree, and for whom this is the first year of tertiary study. The total value of the scholarship is \$10,000.

Oracle Database Prize

Established in 1994, the Oracle Database prize is awarded to the Bachelor of Science in Computing Science student who achieves the highest aggregate mark in the subjects 31443 Distributed Databases and Client/Server Computing and 31434 Database Design. The prize is a cash award of \$400.

SITA/Equant Prize for Academic Excellence

Established in 1996 by SITA, this prize is awarded annually to the student enrolled in the Bachelor of Science in Computing Science who achieves the best overall performance in the final year of the degree and who has completed the course within the minimum time. The prize is a cash award of \$1,000.

Skillsearch Software Development Case Study Prize

This prize was established in 1999 by Skillsearch Computing Pty Ltd. It is awarded annually to the members of the group of students in the Bachelor of Science in Computing Science who achieve the highest mark in the project in the subject 31455 Software Development Case Study. The prize has a shared cash value of \$2,000.

Software Quality Association (NSW) Prize for Software Quality Assurance

This prize was established in 1997 by the Software Quality Association (NSW). It is awarded annually to the Bachelor of Science in Computing Science or the Bachelor of Information Technology student who achieves the highest mark in the subject 31931 Software Quality Assurance. The prize has a cash value of \$400.

Solution 6 Information Technology Planning and Design Prize

Established in 1985 by Computer Automated Business Systems Pty Ltd, now a part of Solution 6, this prize is awarded annually to the group of final-year students, enrolled in either the Bachelor of Science in Computing Science or the Bachelor of Information Technology, who obtain the highest mark in the subject 31464 Information Technology Planning and Design. The cash award of \$1,000 is shared among all students in the group.

Westpac Information Systems Award

This prize was established in 1987 by the Westpac Banking Corporation. It is awarded annually to the full-time Bachelor of Science in Computing Science student who develops the best IT strategic plan based on his or her Industrial Training experience. The prize has a cash value of \$1,000.

STATEMENT OF GOOD PRACTICE AND ETHICS IN INFORMAL ASSESSMENT

Aims of assignments

In many subjects offered by the Faculty, students undertake assessment tasks in the form of assignments. The setting of assignments is intended to promote a number of educational aims, including furthering each student's learning of the subject, particularly the acquisition of practical skills; providing a means for staff to assess each student's learning; providing feedback to the student on his or her progress in learning; and providing feedback to staff on the effectiveness of their teaching.

These aims can be subverted if students deceive staff about the authorship of their work

Acceptable behaviour

Using sources

Whenever anything from someone else's work is used, it is standard practice to indicate exactly where the information comes from. Acknowledgment is achieved by using a standard system of referencing, such as footnotes, end notes, the Harvard system, etc. The Guide to Writing Assignments (available from the Co-op Bookshop) explains how to use all these standard systems of reference.

Collaboration

In some cases assignment guidelines may permit or require students to cooperate in developing a solution to part or all of an assignment. This may occur formally when a staff member assigns students to groups and indicates which components of the assignment they are to work on as a group and which components they are to work on individually.

It may also occur informally. For example, some assignments may involve an 'ideas gathering' phase followed by an 'execution' phase. Students may be permitted to collaborate informally on the preliminary phase(s), but be expected to work completely individually on the subsequent phase(s). In a programming assignment, for example, it is normally acceptable for one student to discuss with another student (or other person) the specifications of the task so as to determine the

requirements (see below). Whether this collaboration could extend to subsequent phases (such as the design phase) would depend on the assignment guidelines; normally, collaboration in the design and subsequent phases is not permitted.

Depending on the type of assignment and degree of collaboration permitted it is possible to define several categories of collaboration:

- individual effort (the student is required to work on all phases entirely by himself or herself)
- group effort (the student is required to work on all phases as part of a formal group), and
- mixed effort (the student is required or permitted to work on some or all phases as part of a formal or informal group).

Unless assignment guidelines specifically state otherwise, a student should assume that an assignment requires a completely individual effort. The forms of cooperative collaborative behaviour that are acceptable under most circumstances are:

- discussing assignment specifications with another student (or other person) with a view to clarifying what is required
- getting help from another student (or other person) on technical matters that are not directly part of the assessment task (e.g. how to use some facility provided by the computer system, such as the editor)
- getting help from another student (or other person) in debugging a program; this is a common occurrence in computing, and
- · obtaining help from a tutor.

Generally, what distinguishes the acceptable cases of collaborative behaviour from the unacceptable ones is the student's intention to deceive. For example, in an assignment requiring a completely individual effort, a student may encounter some snag, such as an unfamiliar compiler diagnostic. If the student was to seek help from another student (or person) to remove the snag, then this would normally be considered acceptable behaviour. If, however, several students designed and coded a solution together, then disguised this collaboration, that would be unacceptable behaviour.

Unacceptable behaviour

Outright lying

This is seen most often in programming assignments, where the program does not run, or runs incorrectly, yet the output handed in is correct. The output has been 'tailored' using a word processor in an attempt to fool the marker. Lying is never acceptable behaviour.

Plagiarism

Plagiarism is the action of taking and using as one's own the thoughts, writings or inventions of another with the intention to deceive.

For example, if one student in a computing subject was to obtain a copy of another student's (or other person's) program, modify parts of the program (e.g. change variable names) so as to disguise its origin, and then submit the modified program as his or her solution, then this would be considered plagiarism.

As another example, a student may obtain all or a major part of the solution to an assignment problem from a text book and, without acknowledging this, submit the solution as his or her own work.

As a further example, a student may use a source of information in an essay, without acknowledging the source. Such plagiarism may range from a sentence or two, or a table or diagram, to occasional cases where the entire paper consists of material copied from a book with only a few sentences added by the student. The student thus submits another's ideas as his or her own work.

Plagiarism is a form of cheating and is never acceptable.

Collusion

Collusion occurs when a student combines with one or more other students (or other persons) to produce a common essay or solution to part or all of an assignment, disguises the shared origin of the solution, and submits the solution as his or her own individual work. Allowing another student access to your work is also regarded as collusion and students caught doing so are penalised.

Collusion is regarded as a form of cheating and is never acceptable.

GRADUATION CEREMONIES

University graduation ceremonies are held in the Autumn and Spring semesters of each year. All students should take note of the Academic Board policy on late approval of graduands which states that 'any graduands who have their results confirmed after the appropriate Academic Board meeting should not be eligible to graduate at the immediately forthcoming ceremony'. Any graduand who is approved, through exceptional circumstances, to attend a ceremony after the Academic Board deadline may not have his or her name included in the Graduation Program.

ENVIRONMENTAL HEALTH AND SAFETY

The Faculty has an Environmental Health and Safety Plan, copies of which are available from either the Faculty Information Office, or on the Department and Faculty web pages. Staff and students should familiarise themselves with the plan and comply with all hazard procedures outlined in it.

The names and locations of First Aid Officers, and of first aid kits, are indicated by appropriate signs in Faculty and Department areas.

UNDERGRADUATE COURSES

Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice¹

◆ Course code: MC17

◆ UAC code: tba

 Testamur title: Bachelor of Science in Information Technology,
 Diploma of Information Technology
 Professional Practice

◆ Abbreviation: BSc (InfTech) DipITProfPrac

· Program Leader: Dr W Brookes

Course fee: HECS (local)
 \$8,500 per semester (international)
 plus \$2,000 in total for the DipITProfPrac

Bachelor of Science in Information Technology¹

◆ Course code: MC09

UAC code: tba

 Testamur title: Bachelor of Science in Information Technology

Abbreviation: BSc (InfTech)
 Program Leader: Dr W Brookes

Course fee: HECS (local)

\$8,500 per semester (international)

Note: These courses will be introduced in Autumn 2002 subject to approval by Academic Board. They replace the pre-2002 undergraduate offerings: Bachelor of Science in Computing Science, Diploma of Information Technology Professional Practice (MC12), and the Bachelor of Science in Computing Science (MC02) (see page 47); Bachelor of Computing, Diploma of Information Technology Professional Practice (MC16), and the Bachelor of Computing (MC06) (see page 53).

Overview

The Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice course consists of six academic semesters of full-time study or the equivalent in part-time attendance, and a

period of industrial training. The Diploma of Information Technology Professional Practice formally recognises the technical and generic skills developed during the industry training undertaken by all students.

The Bachelor of Science in Information Technology provides an alternative three-year pathway (six academic semesters of full-time study or the equivalent in part-time attendance) to:

- international students who do not want to undertake industry training and the Diploma of Information Technology Professional Practice in Australia before returning to their own country, or
- students who want to undertake the Bachelor of Science (Honours) in Information Technology and pursue further postgraduate study and a research career.

Students completing the four-year Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice are eligible for entry into the Bachelor of Science (Honours) in Information Technology.

Course aims

The Bachelor of Science in Information Technology aims to provide a sound education in all aspects of computing and information technology for students who intend to make a career in the profession as well as providing a pathway to Honours, postgraduate study and a research career. It is intended that the course will provide a suitable background covering all aspects of computer science and information technology, short of the actual design and construction of computer hardware. The sub-major stream and elective subjects that may be taken allow students to broaden their knowledge of information technology or other disciplines and areas of interest to them. The sub-major stream provides for further study within particular areas of the computing and information technology discipline; students intending to pursue Honours, postgraduate study and a research career should discuss their sub-major choices with the Honours Program Leader. The elective subjects may be taken outside the Faculty and allow for further study in complementary disciplines such as business or the social sciences.

Subject to approval.

The Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice has the same aims of the Bachelor of Science in Information Technology. The additional industry training component recognised by the Diploma aims to offer students an opportunity to apply and further develop their technical and generic skills in a workplace environment.

A UTS information technology graduate will be able to apply, in the context of any organisation, knowledge and skills in the following

- networked computer systems and applications
- systems development / software engineering
- · information systems management, and
- data management.

Graduates will be committed to lifelong learning built on the foundations provided by their course of study.

Both courses provide an in-depth study of information technology and its applications which enable graduates to fill an appropriate role in the business activities of an organisation. Formal studies will be treated in a manner that will encourage initiative.

Admission requirements

Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice

This course is offered to both local and international students and to both school leavers and non-recent school leavers.

The number of students admitted each year is limited to a strict quota based on the availability of resources.

For local school leavers, selection into the course is based on the HSC UAI or equivalent. There are no prerequisites for entry, however, the assumed knowledge is Mathematics, preferably Mathematics Extension 1, and English Advanced.

For local non-recent school leavers, selection into the course is based on prior study and previous work experience. The Faculty may consider the Limited UAI and will consider a Personal Statement, which is strongly recommended.

Applicants wishing to transfer from another university must apply as a non-recent school leaver in competition with other applicants.

Bachelor of Science in Information Technology

There is no direct entry into the Bachelor of Science in Information Technology. Students must complete the first three semesters of the Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice before applying to transfer to the Bachelor of Science in Information Technology.

The Bachelor of Science in Information Technology is intended for:

- international students who do not want to undertake industry training and the Diploma of Information Technology Professional Practice in Australia before returning to their own country
- students who want to undertake the Bachelor of Science (Honours) in Information Technology and pursue further postgraduate study and a research career.

Students applying under the second criterion must have attained an average mark of 75 per cent or higher and, normally, no failures in the core subjects after the first full-time year or the equivalent part-time program for the Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice.

Selection of international students

International applicants apply through the International Programs Office, but are assessed by the Faculty. Applicants are required to have a competitive Pass in a recognised matriculation examination equivalent to the Australian Year 12 qualification, and to meet or better the University's IELTS criteria.

For details of IELTS criteria, contact the UTS International Programs Office on:

telephone (02) 9514 1531 or visit their website at: www.ipo.uts.edu.au

Advanced standing

Exemptions may be granted on the basis of recent academic study (within the last three years) towards a degree. Students must be able to demonstrate that the knowledge is current. Exemptions are not normally granted for elective subjects.

Students are expected to apply for exemptions at the commencement of their first year of study. The Faculty usually processes exemptions immediately following enrolment.

Exemptions for transfer students from ATN Universities

The ATN Universities have an agreement in place concerning exemptions for study in equivalent courses for students transferring between ATN Universities. Contact the Bachelor of Science in Information Technology Program Leader for details if you are transferring from another university.

Exemption for holders of the Diploma in Information Technology from Insearch UTS

The Diploma in Information Technology at Insearch UTS is likely to be revised to provide exemption from first-year subjects in the Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice.

Exemptions for holders of TAFE Associate Diplomas and Diplomas

Following changes to TAFE Associate Diplomas and Diplomas in May 2001, the exemptions for specific computing subjects are currently under review.

Course duration

The Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice is four years, full time and six years, part time. The course consists of six academic semesters of full-time study or the equivalent in part-time attendance, and a period of industrial training.

Grading of awards

Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice

The Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice degree is awarded at the levels of Pass, Credit or Distinction.

Students who have completed at least 156 credit points (including the 12 credit points for the Diploma of Information Technology Professional Practice) and have an average raw mark of 50 per cent or greater, qualify for a Pass degree.

Qualification above the Pass level is based on the weighted average mark of core subjects, excluding the first year subjects and the Diploma of Information Technology Professional Practice subjects. For a degree with Distinction, no failures in core subjects over the entire course are permitted. For a degree with Credit, only one failure in core subjects over the entire course is permitted. In Autumn 2001, the average raw mark required to achieve a degree with Distinction was 76.8 per cent and a degree with Credit was 70.65 per cent.

The grading of qualifying students is carried out on an individual basis by the Faculty's Examination Review Committee. The Examination Review Committee is provided with the following information on each qualifier:

- any failures, including subject details and whether or not the failure was of a technical nature
- the subject details and marks for all electives undertaken
- the time taken to complete the course in terms of stages, excluding periods of leave of absence, and
- the average mark for each stage of the course.

Bachelor of Science in Information Technology

This degree is awarded as a Pass degree. All students who have completed at least 144 credit points and have an average raw mark of 50 per cent or greater, qualify for a Pass degree.

Course structure

The Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice requires students to complete 156 credit points which consists of: 96 credit points for the core; 24 credit points for the IT sub-major stream; 24 credit points of electives; and 12 credit points for the Diploma of Information Technology Professional Practice.

The Bachelor of Science in Information Technology requires students to complete 144 credit points for a Pass degree which consists of: 96 credit points for the core; 24 credit points for the IT sub-major stream; and 24 credit points of electives.

Course program

Note that the semester timing of the IT submajor stream and electives in the following program is indicative only. The IT sub-major stream and the electives may be taken in any order on completion of the first full-time year or equivalent part-time year. The requirement is to complete 24 credit points of an IT submajor and 24 credit points of electives.

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IT sub-major stream

Students are required to undertake a minimum of 24 credit points of an approved IT sub-major stream.

A list of currently approved sub-majors is shown below. Additional sub-majors may be approved by the Faculty in the future. The Faculty may withdraw the offering of a sub-major if there is insufficient demand. Students are advised to discuss their choice of sub-major with an academic adviser. The IT sub-major streams will be first offered in 2003.

Digital Media

This sub-major is oriented towards future IT and other professionals who wish to be prepared for the new economy in a knowledge-oriented society. The program addresses current and emerging paradigms of information technology and computing in the realm of digital media. It is aimed specifically at developing comprehension and aesthetic awareness of the issues and skills relating to the production of interactive digital media.

Digital Multimedia	6ср
Digital Media Programming and	
Communication	6ср
Distributed Virtual Worlds	6ср
Multimedia Data Mining	6ср
	Digital Media Programming and Communication Distributed Virtual Worlds

Internetworking

This sub-major is designed to meet the growing needs of industry for graduates with a strong knowledge of networking. It provides students with a firm foundation for the design, implementation and management of a modern organisation's IT infrastructure that makes use of intranets and the Internet.

31xxx	VLANs and WANs	6ср
31xxx	Internetwork Design	6cp
31xxx	Network Security	6ср
31xxx	Network Management	6ср

Mobile Computing

This sub-major prepares students for the emerging possibilities that access to Internet resources anytime, any place provides. Business issues, wireless communication infrastructure, mobility problems and solutions, and appropriate application software are studied.

31xxx	Wireless LANs	6ср
31xxx	Wireless Internet Programming	6ср
31xxx	Wireless Communications	6ср
31xxx	Wireless Solutions in Business	6cp

Applications Development

The core subject of this sub-major introduces a variety of IS development approaches covering both design and programming aspects. Electives allow students to specialise in application programming languages, database development or software quality assurance.

31xxx	IS Development Approaches	6ср
	plus three of the following	
31927	Applications Development with Visu Basic	al 6cp
31928	Applications Development with Delphi	6ср
31xxx	Quality Assurance and Process	
	Improvement	6ср
31xxx	IS Testing	6ср
	one approved database/data modelling subject	6ср

IS Theory and Methodologies

This sub-major concentrates on the social aspects of Information System development. While of interest to all IT students (and students from other faculties), it is particularly recommended for those with an interest in IS research.

31xxx	IS Development Approaches	6ср
31xxx	IS Theory and Research Methods	6ср
31735	Information Systems and	
	Organisation Development	6ср
95556	Technology, Society and Change	6cp

A suitable Business or Humanities subject may be substituted for 95556 Technology, Society and Change, with the approval of the Program Leader for the Bachelor of Science in Information Technology.

IT Management and Strategy

This sub-major deals with principles and practices of the use of information technology in organisations, at the operational, management and strategic levels. A choice of electives deals with the application of these principles to management of the IT function, software quality assurance and management of relations with external IT suppliers.

31735	Information Systems and	
	Organisation Development	6ср
31736	Business Processes and IT Strategy	6ср
	plus two of the following	
31xxx	Managing Client/Vendor Relations	6ср
31xxx	IT Operations Management	6ср
31xxx	Quality Assurance and Process	-
	Improvement	6ср

IT Quality Management

The quality of information systems produced by IT professionals is critical to the success of software companies and user organisations, and to the reputation of the IT profession. This sub-major covers practical strategies for providing quality information systems through consideration of usability issues, quality controlled software production and planned management of system operation.

31xxx	Quality Assurance and Process	
	Improvement	6ср
31xxx	IS Testing	6ср
31777	Human-Computer Interaction	6ср
31xxx	IT Operations Management	6ср

Database

This sub-major deals with advanced database topics including distributed database, object databases and a range of other database topics. Both theoretical and practical aspects of design and implementation of modern database systems are covered, with most subjects containing a significant hands-on component.

31xxx	Database Programming and Administration	6ср
31443	Distributed Databases and Client/	J-P
	Server Computing	6ср
31921	Objectbases	6ср
31xxx	Advanced Database Concepts and	
	Techniques	6ср

Computer Graphics

This sub-major provides the theoretical and practical knowledge that is required to understand and build modern 3D computer graphics applications. This knowledge is applied to building a ray tracer, producing a 3D computer animation sequence, and carrying out a computer graphics project.

31140	Introduction to Computer Graphics	6ср
31605	Computer Graphics Rendering	
	Techniques	6ср
31603	3D Computer Animation	6ср
31xxx	Computer Graphics Project	6ср

Intelligent Systems

This sub-major provides the theoretical and practical knowledge that is needed to understand and to build intelligent systems. This knowledge is applied to show how an intelligent agent can find material on the web, or mine the data in an existing application.

31743	Machine Learning	6ср
31750	Intelligent Agents in Java	6ср
31xxx	Data Mining and Knowledge	
	Discovery	6ср
31916	Cognitive Modelling	6ср

Software Engineering

This sub-major presents the tools that are needed to build large and complex software systems. These tools are applied to design and build large systems by reusing existing software, to measure and evaluate the quality of a system, and to manage the huge amount of material that is needed to build and document such systems.

31xxx	Software Engineering Fundamentals	6ср
31xxx	Software Architecture	6ср
31xxx	Software Engineering Processes	6cp
31xxx	Software Metrics and Testing	6ср

Electives

Students must complete a minimum of 24 credit points of electives. At least 12 credit points of electives must be completed outside the Faculty.

Electives may be taken as individual subjects either from within the Faculty or from other faculties within UTS (bearing in mind the requirement to complete at least 12 credit points of electives outside the Faculty). Alternatively, they may be taken as a coherent staged group of subjects, normally a formally approved sub-major from other faculties within UTS. Typically, other faculties offering sub-majors to students from the Faculty of Information Technology are the Faculties of Business, Engineering, Humanities and Social Sciences, and Science.

Subjects that are offered by other faculties may contain material which is already covered in the Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice degree. Students who would like to take subjects from other parts of the University which are not part of submajors approved for students from the Faculty of Information Technology (as listed in this handbook) should discuss their proposed subjects with the Electives Coordinator or an Academic Adviser. Students should note that subjects in other faculties may be worth varying amounts of credit points and that a student's total elective credit points may exceed 24 but must be at least 24.

Students should be aware that they may enrol in subjects in another faculty only if a class place is available. This applies particularly to the Faculties of Business and Humanities and Social Sciences.

International Studies electives

The Institute for International Studies at UTS offers electives in language studies and in the study of contemporary societies in parts of the non-English-speaking world. All subjects last for one semester and have a value of 8 credit points.

Language Studies

All students wishing to engage in language studies as a credited part of their degree are required to enrol through the Institute of International Studies, whether the language studies are undertaken at UTS or elsewhere. The Institute teaches some language programs at UTS, has made arrangements with other universities for some languages to be taught to UTS students, and can make special arrangements for individual students to attend specific language programs where academic needs demand. The individual student's level of language proficiency before entry to the UTS program determines his or her level of language study. There is a range of entry levels to the various programs available. Most are available at beginners' and post-HSC levels, and some at more advanced levels.

Contemporary Society

The Institute also offers a series of subjects that provides an introduction to the contemporary societies, politics, economies and cultures of China, Japan, and the countries of South-East Asia, Latin America and Europe, which are the areas of specialisation of the Institute.

The subjects are:

976111 Contemporary China
976211 Contemporary Japan
976301 Contemporary South-East Asia
976401 Contemporary Europe
976501 Contemporary Latin America

Note: These subjects are only offered in Spring semester.

For further details, students should consult the 2002 handbook for the Institute for International Studies, or

Institute for International Studies

10 Quay Street

Haymarket NSW 2007 telephone: (02) 9514 1426 fax: (02) 9514 1578

email: iisinfo@uts.edu.au

Sub-majors from other faculties and centres

Students may choose one of the following submajors to fulfil their elective requirements for the Bachelor of Science in Information Technology or the Bachelor of Science in Information Technology, Diploma in Information Technology Professional Practice. These submajors may **not** be chosen to fulfil the IT submajor stream of the degree.

Aboriginal Studies

The Faculties of Humanities and Social Sciences and Education offer a range of Aboriginal Studies subjects that may be taken as a sub-major, or as elective subjects, as appropriate, within any undergraduate course.

The sub-major provides Aboriginal and non-Aboriginal students with an opportunity to study subjects that are culturally appropriate to an understanding of Aboriginal culture, history and social/political structures. These initial studies serve as a basis for applying critical analysis skills to Aboriginal and non-Aboriginal perspectives on issues and trends which affect the cultural and social integrity of Aboriginal peoples. Consideration is also given to other Indigenous people, including Torres Strait Islanders.

Sub-major in Aboriginal Studies (24cp)

015110 Aboriginal Cultures and	
Philosophies	8cp
015168 The Politics of Aboriginal History	8cp
015395 Aboriginal Social and Political	
History	8cp

For further information on this sub-major, contact the Faculty of Education on telephone (02) 9514 3900

Humanities and Social Sciences

The Faculty of Humanities and Social Sciences offers electives and elective sub-majors to students across the University.

Information on the timetabling of subjects can be obtained by viewing the Electives timetable displayed outside the Faculty Student Centre, Faculty of Humanities and Social Sciences, in CB03.2. Information regarding electives from this Faculty may be obtained from the 2002 Faculty of Humanities and Social Sciences handbook (available for viewing in the Faculty Student Centre), and by visiting or calling the Faculty Student Centre, Faculty of Humanities and Social Sciences, CB03.2, telephone (02) 9514 2300.

Communication and English Language Studies

Offered through the ELSSA Centre, these subjects are designed for students with particular needs in relation to language and study skills.

59316	Essay Writing	4cp
59317	Report Writing	4cp

Business

The Faculty of Business offers the following sub-majors to students in the Faculty of Information Technology. Students may undertake other sub-majors if they have the necessary prerequisites. Further information about these sub-majors can be obtained from the 2002 Faculty of Business handbook. Students who wish to undertake a Business sub-major should first seek advice from the Faculty of Business Student Liaison Office, telephone (02) 9514 3500.

Sub-major in Business Accounting (24cp)

Jub !!	Sub major m Business Accounting (E4ep)			
22207	Accounting Transactions and Business Decisions	6ср		
22321	Cost Management Systems	6ср		
	plus two of the following			
22320	Accounting for Business Combinations	6ср		
22420	Accounting Standards and			
	Regulations	6ср		
22240	International Accounting	6ср		
22206	Government Accounting	6ср		
22610	Accounting for Insolvency	6ср		
Sub-m	aior in Small Rusiness Accounting			

Sub-major in Small Business Accounting (24cp)

22321	Cost Management Systems 6c		
22207	Accounting Transactions and		
	Business Decisions	6ср	
22566	Accounting for Small Business 1	6ср	
22567	Accounting for Small Business 2	6cp	
Sub-m	najor in Economics (24cp)		
25115	Economics for Business	6ср	
25210	Microeconomic Theory and Policy	6ср	
25303	Industry Economics 6		
25309	Macroeconomic Theory and Policy	6ср	
Sub-major in Employment Relations (24cp)			
21128	International Business	6ср	
21129	Managing People and Organisations	6ср	
21306	International Employment Relations	6ср	

Sub-major in International Management (24cp)

Strategic Human Resource

Management

21407

21128	International Business	6cp
21129	Managing People and Organisations	6ср

21591	International Management	6ср
21531	Managing the International Organisation	6ср
Sub-m	ajor in Introductory Advertising (24	cp)
24108	Marketing Foundations	6ср
24202	Consumer Behaviour	6ср
24210	Advertising and Promotions	
	Management	6ср
24309	Introductory Marketing Research	6ср
Sub-m	ajor in Introductory Marketing (24c	p)
24108	Marketing Foundations	6ср
24202	Consumer Behaviour	6ср
24309	Introductory Marketing Research	6ср
	plus one of the following	
24205	Business Marketing	6ср
24220	International Marketing	6ср

Science

The Faculty of Science offers the following sub-majors to students in the Faculty of Information Technology. Further information about these sub-majors and Science subjects can be obtained from the 2002 Faculty of Science handbook.

Sub-major in Electronics and Computer Interfacing (24cp)

This sub-major provides the knowledge needed to use microprocessors for recording and analysing experimental measurements. It progresses from digital electronic circuitry to microcomputer architecture and then to transductors and devices for interfacing with the real world.

68101	Foundations of Physics ¹	6ср
68201	Physics in Action (Physics 2)	6ср
68314	Electronics	6ср
68514	Electronics and Interfacing	6ср

Students with a sufficiently strong background may substitute 68312 Electrotechnology and Data Analysis (prerequisite 68201 Physics in Action (Physics 2)) for this subject.

Sub-major in Operations Research (24cp)

33401	Introductory Mathematical Methods	6ср
35140	Operations Research Modelling	6ср
35241	Optimisation 1	6ср
	plus one of the following	
35342	Optimisation 2	6ср
35344	Network Optimisation	6ср
35363	Simulation Modelling	6ср

Sub-major in Physics (General) (24cp)

This sub-major provides a grounding in general physics. It is of benefit to students contemplating a

career in the programming of scientific and engineering problems.

68101	Foundations of Physics	6ср			
68201	Physics in Action (Physics 2)	6ср			
	plus two of the following				
68311	Atoms, Photons and Orbits				
	(Physics 3)	6ср			
68312	Electrotechnology and Data Analysis	6ср			
68411	Vibrations, Quanta and Nucleons				
	(Physics 4)	6ср			
Sub-m	Sub-major in Statistics (24cp)				
33401	Introductory Mathematical Methods	6ср			
35252	Statistics 2	6ср			
	plus two of the following				
35353	Regression Analysis	6ср			

Electives from other universities

35356 Design and Analysis of Experiments

35361 Probability and Stochastic Processes

Quality Control

Students wishing to do electives outside the University must see the Electives Coordinator to discuss the proposal. Special approval must be sought well before the intended semester of study. Students may undertake subjects outside the University as electives only if no comparable subject is offered by the University.

Projects

35355

In lieu of one elective subject, students may take one 6-credit-point project. In many cases, these projects may be completed over the Christmas or between-semester breaks, if desired.

A list of projects nominated by various staff members is accessible from the Faculty of Information Technology website, and details are available from the Faculty Information Office or Projects Coordinator. Every project must be supervised by an academic staff member. Students who have their own ideas for projects may approach relevant staff members to be their supervisors and must also see the Projects Coordinator for approval. The supervisor must complete a Project Registration form, accessible from the website listing available projects.

Students may not use work done in the normal course of duties as an Industrial Training student, or as a part-time student, as a project. Students may, however, do a project that is related to their employment if it is done with their employer's permission and outside normal hours of employment. In this case, the student's work supervisor would probably become a joint supervisor of the project.

Projects are also available through the UTS Shopfront.

telephone (02) 9514 2900

www.shopfront.uts.edu.au

As a general guide, a student doing a 6-creditpoint project is expected to spend a minimum of 150 hours on the project.

Industrial experience

6ср

6ср

Diploma of Information Technology Professional Practice

Full-time students normally undertake the Diploma of Information Technology Professional Practice (DipITProfPrac) and Industrial Training after completing Year 2, and part-time students after completing Year 4.

No student is permitted to enrol in the DipITProfPrac until they have completed successfully (or have been exempted from) all subjects that are prerequisites for Industrial Training, namely:

31465 Object-oriented Programming

31469 Object-oriented Design

31466 Principles of Distributed Computing

31470 Distributed Computing Architecture

31467 Networking 1

31471 Networking 2

31472 Introduction to Collaborative Systems

31468 Information, Classification and Control

31473 Data Structures and Procedural Programming

31474 Database Fundamentals

31475 Requirements Engineering

No student is permitted to enrol in the DipITProfPrac until they have obtained suitable employment.

To gain credit for the DipITProfPrac, students are required to obtain an approved, full-time job within the information technology industry. The duration of the DipITProfPrac is a minimum of nine months.

In exceptional circumstances, students may be granted an exemption from the DipITProfPrac if they have completed at least 12 months of suitable recent full-time employment. In general, contracting and self-employment are not regarded as suitable employment.

No student may apply for an exemption from the DipITProfPrac until after successful completion (or exemption) from all subjects that are prerequisites for Industrial Training.

During the DipITProfPrac students are required to behave in a professional manner, and to keep the Faculty informed of the status of their employment at all times so that the Faculty is able to assess their experience. Each year the Faculty of Information Technology publishes a DipITProfPrac Student Guide (for full-time students) which sets out in detail what is required to pass the subject. Students receive a copy of this Guide at the DipITProfPrac information session held in May each year.

Although the securing of suitable employment for the DipITProfPrac is the student's responsibility, the Faculty provides assistance to all DipITProfPrac students. Students who wish to benefit from the direct assistance of the Faculty in finding a DipITProfPrac position should refer to the DipITProfPrac Student Guide for the procedure to be followed.

Students who wish to seek a DipITProfPrac position without the direct assistance of the Faculty should first make an appointment to see the Industry Liaison Officer. If a student finds employment, a second appointment must be made to see the Industry Liaison Officer to obtain certification that the employment is suitable for the DipITProfPrac.

DipITProfPrac students are assessed by members of the academic staff who visit students during their employment.

In general, students find the DipITProfPrac extremely beneficial in relating the final year of coursework to the practical needs of the information industry, and this experience can be cited when applying for graduate career positions.

Professional recognition

Holders of these degrees are eligible for professional level membership of the Australian Computer Society.

Bachelor of Science in Computing Science, Diploma of Information Technology Professional Practice (pre-2002)

◆ Course code: MC12

UAC code: 605000 (F/T): 6050001 (P/T)

 Testamur title: Bachelor of Science in Computing Science, Diploma of Information Technology Professional Practice

Abbreviation: BSc DipITProfPrac

◆ Program Leader: Dr W Brookes

Course fee: HECS (local)¹

Bachelor of Science in Computing Science (pre-2002)

◆ Course code: MC02

◆ UAC code: 605000 (F/T); 605001 (P/T)

 Testamur title: Bachelor of Science in Computing Science

Abbreviation: BSc

Program Leader: Dr W Brookes

Course fee: HECS (local)¹

Note: From Autumn semester 2002 these courses will be replaced by the Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice (MC17) and the Bachelor of Science in Information Technology (MC09) (see page 38).

Transition arrangements for students who commenced prior to 2002 to transfer to the Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice are subject to approval. Once finalised, they will be published on the Faculty of Information Technology website, and details will be available from the Faculty Information Office.

This course is not offered to international students.

	se program		Typica	· ·	
Typica	al full-time program		Year 1		
Year 1			Autum	n semester	
Autum	n semester		31416	Computer Systems Architecture	6c
	Information Systems	6an	31417	Computing Practice	6c
	Principles of Software	6ср	Spring	semester	
31413	Development A	6ср	31414	Information Systems	6c
31416	Computer Systems Architecture	6ср		Principles of Software	
	Computing Practice	6ср		Development A	6c
	semester		Year 2		
	Systems Modelling	6ср		n semester	
	Principles of Software	ocp		Principles of Software	
	Development B	6ср	31423	Development B	6cj
31428	Quantitative Modelling	6ср	31428	Quantitative Modelling	6c ₁
	Procedural Programming	6ср		semester	001
Year 2		-		Systems Modelling	6
				Procedural Programming	6cj
	n semester			1 locedular i logranuming	6ст
	Accounting Information Systems	6ср	Year 3		
	Database Design	6ср	Autum	n semester	
	Systems Software and Networks	8ср	31434	Database Design	6cj
xxxxx	Electives	6ср	xxxxx	Elective	6cp
	semester		Spring	semester	
	Systems Design and Development	10cp	31436	Systems Software and Networks	8c
XXXXX	Electives	12cp		Elective	6cp
Year 3			Year 4		•
Autumi	n semester				
	Preparation and Review of IT			n semester	
01100	Experience	6ср	31444	Systems Design and Development	10c _I
31137	IT Experience 1	0ср	Spring	semester	
	semester	•	22615	Accounting Information Systems	6cp
	Review of IT Experience	6ср	XXXXX	Elective	6cp
	IT Experience 2	0ср	Year 5		
	11 Experience 2	ocp		n semester	
Year 4					(
Autumi	n semester			Software Development Case Study Elective	
31454	Project Management and the				6cp
	Professional	6ср	31130	Preparation and Review of IT Experience	6cp
	Software Development Case Study	6ср	31137	IT Experience 1	0cp
XXXXX	Electives	12cp		semester	J-L
Spring	semester			Software Development Case Study	
31464	Information Technology Planning		31433	(cont.)	6cp
	and Design	6ср	31454	Project Management and the	ocı
31455			01101	Professional	6cp
	(cont.)	6cp	V/		•
xxxxx	Electives	12cp	Year 6		
				n semester	
			31464	Information Technology Planning	
				and Design	6cp
				Elective	6cr
				Review of IT Experience	6cp
				IT Experience 2	0cp
				semester	
			VVVVV	Electives	12cr

6ср Total 48cp

Cour	se program – Insearch UTS appli	cants	Year 2	?	
	pplicants from Insearch UTS, a t		Spring	semester	
	redit points is required to comple			Preparation and Review of IT	
	ram (excluding the 12 credit points			Experience	6ср
	oma in IT Professional Practice		31137		0ср
	des 48 credit points of exemption		31455		
				(evening)	6ср
Autur	nn semester start		Autum	n semester	
Year 1			31138	Review of IT Experience	6ср
Autum	nn semester		31139	IT Experience 2	0ср
31415	Principles of Software		Year 3		
	Development A	6ср			
	Database Design	6ср		semester	
31436	Systems Software and Networks	8ср	31454	Project Management and the	6.00
22615	Accounting Information Systems	6ср	21455	Professional (evening)	6ср
Spring	semester		31433	Software Development Case Study (cont.) (evening)	6ср
31428	Quantitative Modelling	6ср	YYYYY	Electives	12cp
31444	Systems Design and Development	10cp			пер
xxxxx	Elective	6ср		n semester	
Year 2			31464	Information Technology Planning a Design (evening)	na 6cp
			*****	Electives	12cp
	nn semester		*****	Licetives	1200
31136	Preparation and Review of IT	600	A 1		
21127	Experience	6cp	Adva	anced standing	
	IT Experience 1	0ср	Exem	ption for holders of the Diploma	in
	semester	_		nation Technology from Insearci	
	Review of IT Experience	6ср		nts who graduated in 2001 with a	
31139	IT Experience 2	0ср		ge from the current Diploma in	
Year 3	1			n Technology at Insearch UTS r	
Autum	n semester			natic exemptions from the follo	
31454	Project Management and the		subje	cts in the pre-2002 Faculty u	nder-
	Professional	6ср	gradu	ate programs:	
31455	Software Development Case Study	6ср	Local	students	
xxxxx	Electives	12cp			
Spring	semester			Information Systems	6cp
31455	Software Development Case			Computer Systems Architecture	6cp
	Study (cont.)	6ср		Computing Practice	6cp
31464	Information Technology Planning a	nd		Systems Modelling	6ср
	Design	6ср	31425	Principles of Software Development B	6cn
xxxxx	Electives	12cp	21/20	Procedural Programming	6cp
Sprin	g semester start			Electives	6ср 12ср
			****		12cp 1 48cp
Year 1				100	п тоср
	semester		Intern	ational students	
31436	Systems Software and Networks	8ср	31414	Information Systems	6ср
	(evenings)		31416	Computer Systems Architecture	6cp
	Database Design	6ср	31417		6ср
31428	~	6ср	31424	Systems Modelling	6ср
xxxxx	Elective	6ср	31425	Principles of Software Development	_
Autum	n semester		31429		6ср
31415	Principles of Software			and either	-
	Development A	6ср	xxxxx	Electives	12cp
31444	,	10cp		or	_
22615	Accounting Information Systems	6ср	31515	Introduction to Australian IT Indust	гу 6ср
			V2/2/2/2	Elective	600

xxxxx Elective

International students from Insearch UTS are offered a test in English proficiency for academic purposes. The results of this test determine the appropriate program.

- Students able to demonstrate adequate proficiency undertake a 'standard' program of 144 credit points plus the 12 credit points for the Diploma in Information Technology Professional Practice.
- Students able to demonstrate sufficient proficiency enrol in 31515 Introduction to Australian IT in the first semester of study, Year 1; this is undertaken instead of one of the elective subjects (students undertake only 18 credit points of electives). The subject 31468 Information, Classification and Control is undertaken in Year 2.
- Students unable to demonstrate sufficient proficiency are strongly recommended to undertake an intensive English class before enrolling in 31515 Introduction to Australian IT Industry.

Bachelor of Information Technology

◆ Course code: MC03

◆ UAC code: 605010

◆ Testamur title: Bachelor of Information Technology

• Program Leader: Mr C S Johnson

◆ Abbreviation: BInfTech
 ◆ Course fee: HECS (local)¹

Note: The revised version of the Bachelor of Information Technology will be introduced in Autumn semester 2002 and is subject to approval by Academic Board.

Overview

This course is a cooperative education program in computer information systems and has been developed by the Faculty of Information Technology in cooperation with a group of private and public sector employers.

The number of students admitted each year is limited by the number of sponsorship commitments secured from employers to a maximum of 50 places.

Each student admitted to the course receives a scholarship for the duration of the course, subject to satisfactory performance and to certain conditions detailed further in this handbook. Each of the industry partners undertakes to sponsor a stated number of students, and contributes the full amount of their scholarship to a fund administered by the University.

The industry partners also provide the industry-based semester facilities for each of the students assigned to them.

Course aims

The program differs from existing cooperative education courses in that during the industry-based semesters, students follow a structured program designed jointly by the University and the employer group, including formal coursework taught in industry. This coursework is assessed to University and business standards and familiarises students with business needs and requirements. During the industry-based semesters, students are exposed to real problems within an environment quite different from that of the University. The resources of industry are available to support the education of students.

This course is not offered to international students.

The central curriculum of the course is information systems; this is supported by studies in management and strategic planning as well as the necessary background subjects in computing science and programming. The active participation of industry practitioners in course design and course delivery further ensures that graduates of the course are well equipped with skills that are relevant to present and future industry needs.

Admission requirements

Selection into the course is based on HSC results and the compulsory Bachelor of Information Technology questionnaire. Promising applicants are then selected for an interview and suitability is determined on the applicant's performance at the interview. Interviews are conducted by panels that comprise representatives of the University and the industry group. Applicants are assessed for their suitability to the industrial as well as the academic components of the course. The course is aimed primarily at school leavers and is limited to citizens and permanent residents of Australia. Mature age students are not normally admitted.

Course duration

The course is of three years' duration and involves four semesters of full-time study at the University and two semesters of full-time study and practical experience in industry. The industry-based semesters are of 24 weeks' duration, and a 42-week academic year is the norm for the course.

Assessment

Grading of awards

The Bachelor of Information Technology is awarded as a Pass degree, a degree with Credit or a degree with Distinction.

The grading is based on the weighted average mark of core subjects (with the exception of the industry-based semester subjects) and performance in the final industry-based semester.

The grading of qualifying students is carried out on an individual basis by the Faculty's Examination Review Committee. This Committee takes account of input from the Bachelor of Information Technology Course Steering Committee. The Examination Review Committee is provided with the same information as that made available for the grading of Bachelor of Science in Information

Technology, Diploma of Information Technology Professional Practice students, with one important addition: the overall assessment, by industry, of the final industry-based semester.

Course structure

Year	Semester 1	Semester 2
1	UTS	Industry
2	UTS	UTS
3	Industry	UTS

Course program

Proposed program for 20021

n semester		
Object-oriented Programming	6ср	
Principles of Distributed Computing	6ср	
Networking 1	6ср	
Information, Classification and Control	6ср	
Spring semester		
Database Fundamentals	6ср	
Industry Project 1	9ср	
Industry Study 1	6ср	
	Object-oriented Programming Principles of Distributed Computing Networking 1 Information, Classification and Control semester Database Fundamentals Industry Project 1	

Year 2 Autumn semester 31469 Object-oriented Design 6cp 31470 Distributed Computing Architecture 6ср 31475 Requirements Engineering 6cp xxxxx Approved business elective 6ср xxxxx Elective 6ср Spring semester 31476 Systems Development Project 12cp Information Systems and Organisation Development 6ср xxxxx Elective 6ср

xxxxx	Elective	6ср
31492	Industry Project 2	9ср
31490	Industry Study 2	6ср
Spring .	semester	
31479	Information Technology Professional	
	and Society	6ср
31480	Strategic Information Technology	
	Planning Project	6ср
31736	Business Processes and IT Strategy	6ср
xxxxx	Elective	6ср

Subject to approval.

Year 3

Autumn semester

Pre-2002 program

Year	1

Autum	n semester	
31414	Information Systems	6ср
31415	Principles of Software	
	Development A	6ср
31416	Computer Systems Architecture	6ср
31718	Contemporary Information	,
	Technology 1	6ср
	semester	_
31722	Commercial Programming	5ср
31770	Industry Project 1	5ср
31771	Business Requirements Analysis	5ср
31779	Applications of Information	F
	Technology 1	5ср
Year 2		
Autum	n semester	
22615	Accounting Information Systems	6ср
31424	Systems Modelling	6ср
31434	Database Design	6ср
31436	Systems Software and Networks	8ср
Spring	semester	
31444	Systems Design and Development	10cp
31443	Distributed Databases and Client/	
	Server Computing	6ср
31735	Information Systems and	
	Organisation Development	6cp
XXXXX	Elective	6ср
Year 3		
Autum	n semester	
31756	Project Management	5ср
31781	Business Systems Design	5ср
31789	Applications of Information	_
	Technology 2	5cp
31790	Industry Project 2	5ср
Spring	semester	
24108	Marketing Foundations	6ср
31464	Information Technology and	
01507	Planning Design	6cp
31736	Business Processes and IT Strategy	6ср
31769	Contemporary Information	100
	Technology 2	4cp

Electives

xxxxx Elective

Electives may be taken from the Faculty of Law, the Faculty of Business or within the Faculty of Information Technology, subject to the approval of the Bachelor of Information Technology Program Leader.

6ср

Industrial experience

The two industry-based semesters are spent with two different companies. Students are not employees of the company, and are not obliged to find employment with a given company on completion of their studies. Nevertheless, students are encouraged to find employment within the group of sponsoring employers.

The dates of the industry-based semesters for 2002 are as follows:

- Autumn semester (third-year students): Monday 14 January 2002 - Friday 28 June 2002
- Spring semester (first-year students): Monday 8 July 2002 – Friday 20 December 2002

Students are expected to attend their assigned sponsoring company on a full-time basis throughout these periods. Students cannot expect any absences to be approved during the industry-based semesters.

Scholarship

The scholarship is paid at three different and increasing levels; all first-year students start at Level 1. At the end of each year, all Bachelor of Information Technology students with satisfactory progress move from their current level to the next level.

The levels for 2002 are as follows:

- Level 1: \$11,500 per annum
- Level 2: \$12,000 per annum
- Level 3: \$12,500 per annum

The scholarship paid to Bachelor of Information Technology students has been ruled as tax exempt. The reference for the ruling by the Australian Tax Office is Item 2.1A, section 51-10 of the Income Tax Assessment Act 1997. Class Ruling CR 2001/8.

Rules and regulations

There are special conditions relating to students enrolled in the Bachelor of Information Technology.

Leave of absence is not normally granted to students, except under extraordinary circumstances and subject to satisfactory arrangements being possible. Likewise, withdrawal from the course and subsequent readmission is not normally granted. Students are reminded that withdrawal without penalty from any course at the University is only possible up to the deadlines imposed by the University. After such deadlines, students are expected to complete all assessment tasks for subjects in which they are enrolled.

Variations to the approved program of study for the Bachelor of Information Technology

are restricted. No industry-based subject may be deleted from the program, except under extraordinary circumstances and at the discretion of the Course Steering Committee and the Faculty of Information Technology. No industry-based subject may be taken during a University-based semester. The taking of additional subjects during an industry-based semester is seen as unusual and may only be done at the discretion of the Course Steering Committee and the Faculty.

The Faculty will not recommend probation for unsatisfactory academic performance. Instead, the Faculty recommends to the Faculty Board that a student be **excluded** under any of the following circumstances:

- a student fails any subject for the second time
- a student gains less than 50 per cent of the credit points for which he or she is enrolled in that assessment period
- a student fails any subject that is part of the program of an industry-based semester (there is provision for a supplementary examination to be taken in these subjects following a failure on the first attempt) or a student performs unsatisfactorily during an industry-based semester, or
- immediately prior to the commencement of an industry-based semester, a student has still to complete more than one subject in the normal program of the course to that stage.

Appeals against exclusion are dealt with by the University's Appeals Committee (of the Academic Board), which takes into account the recommendation of the Course Steering Committee.

Professional recognition

Holders of these degrees are eligible for professional level membership of the Australian Computer Society.

Other information

Change of personal details

Students must inform the University should their name or address change. Bachelor of Information Technology students must also inform Des Saunders, Industry Liaison Officer, of any changes to personal details. Students who wish to change the method of payment of the scholarship should contact the Salaries Office of the University's Financial Services Unit on telephone (02) 9514 7402.

Bachelor of Computing, Diploma of Information Technology Professional Practice (pre-2002)

- ◆ Course code: MC16
- Testamur title: Bachelor of Computing, Diploma of Information Technology Professional Practice
- ◆ Abbreviation: BComp DipITProfPrac
- Program Leader: Dr W Brookes
- Course fee: \$8,500 per semester plus \$2,000 in total for the DipITProfPrac (international)¹

Bachelor of Computing (pre-2002)

- ◆ Course code: MC06
- Testamur title: Bachelor of Computing
- Abbreviation: BComp
- Program Leader: Dr W Brookes
- Course fee: \$8,500 per semester (international)¹

Note: From Autumn semester 2002 these courses will be replaced by the Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice (MC17) and the Bachelor of Science in Information Technology (MC09), (see page 38).

Transition arrangements for students commencing prior to 2002 to transfer to the Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice are subject to approval. Once finalised, they will be published on the Faculty of Information Technology website and details will be available from the Faculty Information Office.

Course program

Year 1

Autumn	semester	
31515	Introduction to Australian IT Industry	6ср
31507	Australian IT Industry	6ср
31417	Computing Practice	6ср
31414	Information Systems	6ср
Spring :	semester	
31424	Systems Modelling	6ср
31508	Programming Fundamentals	6ср
31509	Computer Fundamentals	6ср
31425	Principles of Software	
	Development B	6ср

This course is not offered to local students.

54 Undergraduate courses

Year 2	
Autumn semester	
31434 Database Design	6ср
31429 Procedural Programming	6ср
31510 Operating Systems	6ср
xxxxx Elective 1	6ср
Spring semester	
31511 Systems Design	6ср
31512 Networking 1	6ср
31428 Quantitative Modelling	6ср
xxxxx Elective 2	6ср
Year 3	
Autumn semester	
31136 Preparation and Review of IT	
Experience	6ср
31137 IT Experience 1	0ср
Spring semester	
31138 Review of IT Experience	6ср
31139 IT Experience 2	0ср
/ear 4	
Autumn semester	
31454 Project Management and the	
Professional	6ср
22615 Accounting Information Systems	6ср
xxxxx Elective ¹	
or	
31514 Computing Theory ²	6cp
xxxxx Elective 3	6ср
Spring semester	
31464 Information Technology Planning a	
Design	6cp
xxxx Elective ¹	6ср
or 2	
31514 Computing Theory ²	6ср
31931 Software Quality Assurance	6ср
xxxxx Elective 4	6ср

These elective subjects may be taken from any of the computing electives offered by the Faculty of Information Technology (and may include any of the subjects listed in Note 3 on page 56 not already taken) or one of a small set of approved subjects from other Faculties, for example subjects in International Finance or International Management.

Course program – Insearch UTS applicants

For applicants from Insearch UTS, a total of 144 credit points is required to complete this program (excluding the 12 credit points of the Diploma in IT Professional Practice). This includes 48 credit points of exemptions.

Autumn semester start

Year 1		
Autum	n semester	
31515		
	IT Industry ¹	6ср
31507		6cp
31508	0	6ср
31434	Database Design	6ср
Spring	semester	
31428	Quantitative Modelling	6ср
31510	Operating Systems	6ср
31511	Systems Design	6cp
31512	Networking 1	6ср
Year 2		
Autum	n semester	
31136	Preparation and Review of IT Experience	6ср
31137	IT Experience 1	0ср
Spring	semester	
31138	Review of IT Experience	6ср
31139	-	0ср
Year 3		
Autum	n semester	
31454	Project Management and the	
	Professional	6ср
	Accounting Information Systems	6ср
	Computing Theory⁵	6ср
xxxxx	Elective 1 ⁴	6ср
Spring	semester	
31464	Information Technology Planning a Design	nd 6cp
31931		6ср
	Elective ³	6cp
	Elective 2 ⁴	6ср
~~~~	LICCUVE 2	ocp

The subject 31514 Computing Theory is only offered in one semester each year. If, for example, it is offered in Autumn, students in an Autumn intake will take it in their fifth semester, and students who start in Spring will take it in their sixth semester.

## Spring semester start

Year 1					
Spring	Spring semester				
31515	Introduction to Australian IT Industry ¹	6ср			
31508	Programming Fundamentals	6ср			
31428	Quantitative Modelling	6ср			
31510	Operating Systems	6ср			
Autum	n semester				
31507	Australian IT Industry ²	6ср			
31434	Database Design	6ср			
31511	Systems Design	6ср			
22615	Accounting Information Systems	6ср			
Year 2					
Spring	semester				
31136	Preparation and Review of IT Experience	6ср			
31137	IT Experience 1	0ср			
Autum	n semester				
31138	Review of IT Experience	6ср			
31139	IT Experience 2	0ср			
Year 3					
Spring	semester				
31454	Project Management and the				
	Professional (evening)	6ср			
31512	Networking 1	6ср			
XXXXX	Elective ³	6ср			
xxxxx	Elective 1 ⁴	6ср			
	n semester				
31464	Information Technology Planning				
	and Design	6cp			
31931	Software Quality Assurance	6cp			
31514	Computing Theory	6cp			
XXXXX	Elective 2 ⁴	6ср			

- Students are offered a test in English proficiency for academic purposes. The results of this test determine the appropriate program:
  - · those able to demonstrate adequate proficiency are exempted from taking 31515 Introduction to Australian IT Industry and enrol in an Elective instead
  - those able to demonstrate sufficient proficiency enrol in 31515 Introduction to Australian IT Industry - they will undertake a 'standard' program
  - · those unable to demonstrate sufficient proficiency are strongly recommended to undertake an intensive English class before enrolling in 31515 Introduction to Australian IT Industry - they will undertake a 'standard' program of 18cp.
- ² 31507 Australian IT Industry covers topics such as Australian culture and the local IT industry. Students who have adequate preparation before they start the course may be allowed to substitute subjects such as Australian Business Environment.

- These electives are chosen from:
  - 31443 Distributed Databases and Client/Server Computing
  - 31513 Networking 2
  - 31777 Human-Computer Interaction
  - 31922 Object-oriented Methodologies
- These elective subjects may be taken from any of the computing electives offered by the Faculty of Information Technology (and may include any of the subjects listed in Note 3 above not already taken) or one of a small set of approved subjects from other Faculties, for example subjects in International Finance or International Management.
- The subject Computing Theory is only offered in one semester each year. If, for example, it is offered in Autumn, students in an Autumn intake will take it in their fifth semester, and students who start in Spring will take it in their sixth semester.

## Bachelor of Science (Honours) in Information Technology

◆ Course code: MC10

 Testamur title: Bachelor of Science (Honours) in Information Technology

Abbreviation: BSc(Hons)
 Program Leader: Dr R Rist
 Course fee: HECS (local)

\$8,500 per semester (international)

## Overview

This course provides the opportunity for students to develop their level of competence in a chosen area of information technology.

## Course aims

The Honours program's aims to: provide students with a sound research methodology; provide for the study in depth of particular topics in information technology; provide students with the experience of undertaking a research-oriented project; and provide students with a basis for postgraduate research or a career in industrial research and development.

The precise selection of subjects to be offered in any particular year depends on the interests of the students, and the interests and availability of academic staff. Students should consult the Honours Program Leader who will assist them in planning their program.

## Admission requirements

For students within the Faculty who are eligible to graduate from an undergraduate degree, the admission criterion is a weighted average mark of 70 per cent or higher, normally with no recorded failures in the core subjects after the first year (full time) or Stages 1 and 2 (part time) of the undergraduate degree.

Students are expected to be drawn from the following undergraduate groups:

- Bachelor of Science in Computing Science
- Bachelor of Science in Computing Science,
   Diploma of Information Technology
   Professional Practice
- Bachelor of Mathematics and Computing

- Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice (proposed for implementation in 2002)
- Bachelor of Science in Information Technology (proposed for implementation in 2002).

Students enrolled in the Bachelor of Information Technology degree are not eligible to start the Honours program on graduation. The Bachelor of Information Technology is supported by scholarships from industry and sponsors expect to employ the graduates after three years. These students may apply for admission to the Honours program at a later stage in their career.

Admission to the Honours program is not automatic. At the time of application, a student specifies an area of interest for the 31482 Honours Project B, and a possible Honours adviser. If an adviser cannot be found, then the student is not admitted to the program. It is expected that students will 'sound out' a potential adviser during their final undergraduate semester, or sometime before the application deadline for external students.

'External' students are those students from another Faculty in the University, or from another university, with qualifications equivalent to the Bachelor of Science in Computing Science. These students are considered for entry, subject to approval by the Honours Program Leader, on the basis of their potential to complete the Honours degree.

## Course duration

The Honours program is offered over one year, full time, or two years, part time.

## **Assessment**

## **Grading of awards**

The assessment of students' results takes into account the Honours level coursework subjects and the research project (31482 Honours Project B). Honours at the grades of First Class, Second Class (Division 1), Second Class (Division 2) and Third Class are awarded for successful completion of the course.

A student with 48 credit points of approved study, a weighted average mark of 50 per cent or greater, and at most one failure over the course, qualifies for Third Class Honours.

The grading of awards above Third Class Honours is carried out on an individual basis by the Faculty's Examination Review Committee. The actual qualifying standards are determined yearly by the Committee within the following criteria:

- for First Class Honours, the minimum qualifying average mark is 85 per cent and no failures are permitted over the entire course¹
- for Second Class (Division 1) Honours, the minimum qualifying average mark is 75 per cent and only one failure is permitted over the entire course¹
- for Second Class (Division 2) Honours, the minimum qualifying average mark is 65 per cent and only one failure is permitted over the entire course.¹

The Committee is provided with the following information on each qualifier:

- any failures, including subject details and whether the failure was of a technical nature
- the subject details and marks for all subjects undertaken
- the time taken to complete the course in terms of stages, excluding leave of absence, and
- the average mark for each stage of the course.

## Course structure

The Honours degree consists of research (comprising half the program) and advanced coursework (comprising the other half of the program). The research component is spread over the entire course: in the first semester, students take 32931 Information Technology Research Methods and review the research literature in their chosen area (31481 Honours Project A); in the second semester, students undertake a formal research project in their chosen area (31482 Honours Project B). A list of approved Honours coursework electives is available from the Honours Program Leader.

## Course program

#### Year 1

Autum	n semester	
32931	Information Technology Research Methods	6ср
31481	Honours Project A	6ср
xxxxx	Honours electives	12cp
Spring	semester	
31482	Honours Project B	12cp
xxxxx	Honours electives	12cp

The term 'entire course' refers only to subjects in the Honours course. A student's undergraduate results are not considered when grading an Honours award.

## **COMBINED DEGREES**

## Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice, Bachelor of Laws¹

- ◆ Course code: LL19
- ◆ UAC code: tba
- Testamur title: Bachelor of Science in Information Technology
   Diploma of Information Technology
   Professional Practice
   Bachelor of Laws
- ◆ Abbreviation: BSc (InfTech) DipITProfPrac LLB
- Course fee: HECS (local)
   \$7,000 per semester (international)

# Bachelor of Science in Computing Science, Bachelor of Laws (pre-2002)

- ◆ Course code: LL06
  ◆ UAC code: 609020
- Testamur title: Bachelor of Science in Computing Science Bachelor of Laws
- Abbreviation: BSc LLBCourse fee: HECS (local)
  - \$7,000 per semester (international)

#### Overview

The Bachelor of Science in Information Technology, Diploma in Information Technology Professional Practice, Bachelor of Laws will be introduced in Autumn 2002 subject to approval by Academic Board. This course replaces pre-2002 undergraduate offering Bachelor of Science in Computing Science, Bachelor of Laws (LL06).

Transition arrangements for students commencing the Bachelor of Science in Computing Science, Bachelor of Laws prior to 2002 to transfer to the Bachelor of Science in Information Technology, Diploma in Information Technology Professional Practice, Bachelor of Laws will be published on the Faculty of Information Technology website and details will be available from the Faculty of Information Technology Office.

This course is offered jointly by the Faculty of Law and the Faculty of Information Technology. The program will allow students the option of undertaking the professional program as part of their undergraduate studies.

## Admission requirements

Local students are required to apply for admission through the NSW Universities Admissions Centre (UAC). For school leavers, admission is based on UAI scores. Non-recent School Leavers should apply through UAC in addition to sending a Personal Statement to UTS. Applications are taken from August to end of October each year. Considerations for admission as a Non-recent School Leaver takes into account the following:

- English proficiency and written expression
- previous legal study
- tertiary study
- legal experience or employment
- motivation and the reason for wanting to study law (and other discipline in the case of a combined or double degree)
- commitment to study law, and
- supporting material such as professional and personal references and/or letter of employer's support.

International students should contact the UTS International Programs Office (IPO) for application procedures. In addition to academic requirements, students are required to meet English language proficiency requirements.

## Course duration

The course is of five years' duration and is offered only on a full-time basis (although students will be expected to attend some evening lectures).

## Course structure

Students enrol with the Faculty of Law and are required to complete a total of 252 credit points, 108 credit points in Information Technology and 144 credit points in Law. Students must complete the Diploma in Information Technology Professional Practice before graduation, ideally in a legal environment.

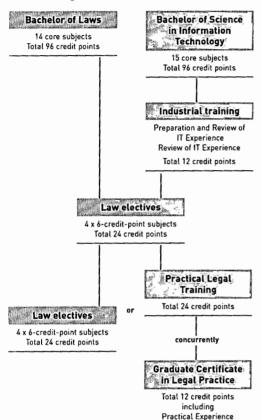
Students will be awarded two degrees and therefore will receive two testamurs on graduation. Students who elect not to complete the joint degree may be permitted to complete Bachelor of Science in Information Technology,

¹Subject to approval.

Diploma in Information Technology Professional Practice or a Bachelor of Laws as a stand-alone degree.

## Course program

## Course diagram



## Year 1

Autumn semester 31471 Networking 2

70311 Law of Tort

Autumi	n semester	
31466	Principles of Distributed Computing	6ср
31468	Information, Classification and	-
	Control	6ср
70105	Legal Research	4cp
70113	Legal Process and History	10ср
Spring	semester	
31467	Networking 1	6ср
31472	Introduction to Collaborative	
	Systems	6ср
70211	Law of Contract	8cp
70217	Criminal Law	6ср
Year 2		

31465 Object-oriented Programming

70616 Federal Constitutional Law

O credit points

6ср

6ср

8ср

8cp

Year	2	(cont.)

Year 2	(cont.)	
Spring	semester	
31469	Object-oriented Design	6ср
31470	Distributed Computing Architecture	6ср
70317	Real Property	8cp
70318	Personal Property	4cp
Year 3		
Autum	n semester	
31473	Data Structures and Procedural Programming	6ср
31474	Database Fundamentals	6ср
70417	Corporate Law	8cp
70617	Administrative Law	8cp
Spring	semester	
31475	Requirements Engineering	6ср
70516	Equity and Trusts	8cp
76xxx	Law elective subject 1	6ср
76xxx	Law elective subject 2	6ср
Year 4		
Autum	n semester	
31476	Systems Development Project	12cp
71005	Practice and Procedure	4cp
71216	Law of Evidence	6ср
76xxx	Law elective subject 3	6ср
Spring	semester	
31478	Project Management and Quality	_
	Assurance	6ср
71116	Remedies	6cp
76xxx	,	6ср
31136	Preparation and Review of	
31137	IT Experience IT Experience 1	6ср 0ср
Year 5	Ti Experience I	оср
	n semester	
31479	Information Technology Professional	ı
	and Society	6ср
31480	Strategic Information Technology	-
	Planning Project	6ср
31138	Review of IT Experience	6ср
31139	IT Experience 2	0ср
Spring	semester	
	Practical Legal Training	24cp
	or	

## Other information

Four Law electives

The Faculty of Law administers the course and inquiries should be directed to them on telephone (02) 9514 3444.

24cp

## Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice, Bachelor of Arts in International Studies¹

Course code: MC15

◆ UAC code: tba

- Testamur title: Bachelor of Science in Information Technology
   Diploma of Information Technology
   Professional Practice
   Bachelor of Arts in International Studies
- Abbreviation: BSc (InfTech) DipITProfPrac BA
- Program Leader: Dr W Brookes
- Course fee: HECS (local) \$8,500 per semester plus \$2,000 total for the DipITProfPrac (international)

## Bachelor of Science in Computing Science, Bachelor of Arts in International Studies (pre-2002)

Course code: MC05
UAC code: 609230

 Testamur title: Bachelor of Science in Computing Science
 Bachelor of Arts in International Studies

Abbreviation: BSc BA

◆ Program Leader: Dr W Brookes
 ◆ Course fee: HECS (least)²

Course fee: HECS (local)²

## Bachelor of Computing, Bachelor of Arts in International Studies (pre-2002)

◆ Course code: MC07

- Testamur title: Bachelor of Computing Bachelor of Arts in International Studies
- ◆ Abbreviation: BComp BA
- Program Leader: Dr W Brookes
- Course fee: \$8,500 per semester (international)³

Note: The Bachelor of Science in Information Technology, Diploma in Information Technology Professional Practice, Bachelor of Arts in International Studies (MC15) will be introduced in Autumn 2002, subject to approval by Academic Board. This course replaces pre-2002 undergraduate offerings: Bachelor of Science in Computing Science, Bachelor of Arts in International Studies (MC05); and Bachelor of Computing, Bachelor of Arts in International Studies (MC07).

Transition arrangements are subject to approval. Once finalised, they will be published on the Faculty of Information Technology website and details will be available from the Faculty Information Office, for students who commenced the Bachelor of Science in Computing Science, Bachelor of Arts in International Studies or the Bachelor of Computing, Bachelor of Arts in International Studies prior to 2002, for transfer to the Bachelor of Science in Information Technology, Diploma in Information Technology Professional Practice, Bachelor of Arts in International Studies.

## **Overview**

This course combines the Bachelor of Science in Information Technology, Diploma in Information Technology Professional Practice with the University's Bachelor of Arts in International Studies. Information technology is integrated with a major in the language and culture of another country.

## Course aims

The information technology component of the combined degree aims to provide a sound education in all aspects of computing and information technology for students who intend to follow a career in the profession. It is intended that the course will provide a suitable background covering all aspects of computer science and information technology, short of the actual design and construction of hardware systems.

The International Studies component of the joint degree is designed to offer students the chance of gaining an in-depth understanding of a culture other than their own through academic and experiential learning. The program equips students with the ability to make progress towards acquiring sufficient language skills to study and live in this culture as well as encouraging an appreciation of the diversity of ways of seeing and practices of

Subject to approval.

² This course is not offered to international students.

This course is not offered to local students.

others, and promoting empathic understanding of other cultures in general. It fosters an awareness of and sensitivity towards the needs and values of people and cultures of other countries in international, cultural and local contexts.

## Admission requirements

Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice, Bachelor of Arts in International Studies

Local students apply for entry to this course through the Universities Admissions Centre (UAC).

International students apply through UTS International Programs Office, but are assessed by the Faculty. Applicants are required to have a competitive Pass in a recognised matriculation examination equivalent to the Australian Year 12 qualification, and to meet or better the University's IELTS criteria. For details of IELTS criteria, contact the UTS International Programs Office:

telephone (02) 9514 1531 www.ipo.uts.edu.au

Bachelor of Science in Computing Science, Bachelor of Arts in International Studies and Bachelor of Computing, Bachelor of Arts in International Studies

No new admissions will be accepted from 2002 onwards.

## Advanced standing

For the information technology component, refer to the Bachelor of Science in Information Technology, Diploma in Information Technology Professional Practice entry in this handbook.

## Course duration

The course is of six years' duration and students spend the fourth year of study at a university overseas. The fifth and sixth years are completed part time.

#### Course structure

The structure of the six-year course is derived from the combination of the Bachelor of Science in Information Technology, Diploma in Information Technology Professional Practice with the Bachelor of Arts in International Studies.

All arrangements currently in force for both the Bachelor of Science in Information Technology, Diploma in Information Technology Professional Practice and the Bachelor of Arts in International Studies apply equally to the combined degree program.

To graduate, a student is required to have completed 252 credit points: 156 credit points in Information Technology and 96 credit points in International Studies.

There are a substantial number of prerequisites for the Diploma of Information Technology Professional Practice. In this combined degree program the Diploma is normally undertaken part time in Years 5 and 6. To gain credit for the Diploma in Information Technology Professional Practice, students are required to obtain an approved, full-time job within the information technology industry.

## International Studies component

The Bachelor of Arts in International Studies requires undergraduates to study a major – a region or country specialisation – over a minimum of three years. In Sydney, students study Language and Culture for at least two years, followed by a period of study overseas.

In the International Studies program, students focus on one of the following countries or majors: Chile, China, France, Germany, Indonesia, Italy, Japan, Malaysia, Mexico, Spain or Thailand. There is also a Heritage major that permits students with previous exposure to a language and culture to continue their study in countries such as Croatia, Greece, Hong Kong, Korea, Poland, Russia, Taiwan, the Philippines, Vietnam and others.

Australia and the Asia-Pacific is only available as a major to international students. International students may access one of the other majors offered provided that the country they choose as their major is able to grant them a visa to study there. This needs to be determined prior to commencing subjects within the International Studies major. If a visa cannot be granted, then it will not be possible to undertake the chosen major.

Students are admitted to the International Studies program with no guarantee of entry to a specific major, although every effort is made to meet students' preferences. The Institute reserves the right to allocate places in majors according to its resources and arrangements with overseas universities.

Each major includes 32 credit points (four 8-credit-point subjects) of instruction in Language and Culture; 8 credit points of

study of Comparative Social Change; 8 credit points of study of Contemporary Society; and 48 credit points (two semesters) of study at a university or institution of higher education in the country of the major.

There are no prior language requirements for the International Studies component of this combined degree, except for programs within the Heritage major.

## Arrangements for In-country Study

Students are required to complete all appropriate subjects in their combined degree, including four consecutive semesters of study of Language and Culture before proceeding to In-country Study. There are different classes available for students according to their level of language proficiency.

The Institute for International Studies makes arrangements for students to spend two semesters of In-country Study at an institution of higher education in the country of their major. The costs of tuition in host institutions overseas and travel between Sydney and the designated host institutions are borne by UTS except in cases where a scholarship has been awarded to the student with provision for these costs. Under those circumstances, the funds that would otherwise have been allocated towards the student's tuition and travel are redirected to support the In-country Study program in general. In most cases, the cost of living for the period of In-country Study will not exceed the cost of living away from home in Sydney. However, students should be aware that the cost of living in some countries notably Japan – may be higher than in Sydney.

## Course program

Year 1		
Autum	n semester	
31465	Object-oriented Programming	6ср
31466	Principles of Distributed Computing	6ср
31467	Networking 1	6ср
31468	Information, Classification and	
	Control	6ср
Spring	semester	
31469	Object-oriented Design	6ср
31470	Distributed Computing Architecture	6ср
31471	Networking 2	6ср
31472	Introduction to Collaborative	
	Systems	6ср

Year 2		
Autumr	semester	
31473	Data Structures and Procedural	
	Programming	6c _I
50140	Comparative Social Change	8c
971xxx	Language and Culture 1	8c
31xxx	Information Technology elective	6cj
Spring:	semester	
31474	Database Fundamentals	6cp
972xxx	Language and Culture 2	8cj
31xxx	Information Technology elective	6c
Year 3		
Autumr	semester	
31475	Requirements Engineering	6c ₁
973xxx	Language and Culture 3	8c
31xxx		6c
	•	رعات
	semester	10
31476	Systems Development Project	12c ₁
	Language and Culture 4	8cj
976XXX	Contemporary Society	8cj
Year 4		
Autumr	n semester	
977xxx	In-country Study 1	24c _l
	semester	
978xxx	In-country Study 2	24c ₁
Year 5		
Autumr	n semester	
31xxx	IT sub-major stream	6c
31xxx	Information Technology elective	6c
Spring	semester	
31478	Project Management and Quality	
011.0	Assurance	6cj
31xxx	IT sub-major stream	6c
Year 6		
	semester	
31479	Information Technology Professional	
	and Society	6cj
31480	Strategic Information Technology	
	Planning Project	6c
31136	Preparation and Review of IT	
	Experience	6c
31137	IT Experience 1	0c
Spring	semester	
31xxx	IT sub-major stream	6c
31xxx	IT sub-major stream	6c
31138	Review of IT Experience	6c
	<u>-</u>	0c
31138	IT Experience 2	

## Professional recognition

Holders of these degrees are eligible for professional-level membership of the Australian Computer Society.

## Other information

For further information on the information technology component of the combined degree, see the course outline for the Bachelor of Science in Information Technology, Diploma in Information Technology Professional Practice in this handbook.

For details of International Studies subjects, students should refer to the Subject Descriptions section in this handbook. Queries regarding the International Studies component of the course should be addressed to the Institute itself on telephone (02) 9514 1574.

Combined degree students are required to confirm, during the University pre-enrolment and enrolment period, the subjects they intend to take for the year with the Institute at 10 Quay Street, Haymarket, Sydney.

## **DOUBLE DEGREE**

## **Bachelor of Business**

- Course code: BO2C (City campus); BO2K (Kuring-gai campus)
- UAC code: 600010 (City F/T), 600011 (City P/T); 600020 (Kuring-gai F/T)
- Testamur title: Bachelor of Business
- Abbreviation: BBus
- ◆ Course fee: HECS (local)¹

## Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice²

- ◆ Course code: MC17
- UAC code: tba
- Testamur title: Bachelor of Science in Information Technology
   Diploma of Information Technology
   Professional Practice
- ◆ Abbreviation: BSc (InfTech) DipITProfPrac
- Course fee: HECS (local) \$8,500 per semester plus \$2,000 in total for the DipITProfPrac (international)

## Bachelor of Science in Computing Science, Diploma of Information Technology Professional Practice (pre-2002)

- Course code: MC12
- UAC code: 605000 (F/T), 605001 (P/T)
- Testamur title: Bachelor of Science in Computing Science Diploma of Information Technology Professional Practice
- Abbreviation: BSc DipITProfPrac
- ◆ Course fee: HECS (local)¹

## **Overview**

This double degree (two testamurs) is offered jointly by the Faculty of Business and the Faculty of Information Technology. Students

This course is not offered to international students.

Subject to approval.

complete the Bachelor of Business with a submajor in Information Technology, as advised by the Faculty of Information Technology, and then transfer to the Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice.

The Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice will be introduced in Autumn 2002 subject to approval by Academic Board. This course replaces pre-2002 undergraduate double degree offering Bachelor of Science in Computing Science, Diploma of Information Technology Professional Practice and Bachelor of Business.

Transition arrangements for students commencing the Bachelor of Science in Computing Science, Diploma of Information Technology Professional Practice prior to 2002 to transfer to the Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice are subject to approval. Once finalised, they will be published on the Faculty of Information Technology website and details will be available from the Faculty of Information Technology Office.

## **Admission requirements**

## **Bachelor of Business**

Students apply initially for the Bachelor of Business as either a Recent School Leaver or Non-recent School Leaver. Refer to the Bachelor of Business course entry in the Faculty of Business handbook for details.

## Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice

On satisfactory completion of the Business degree and with a sub-major in Information Technology, as advised by the Faculty of Information Technology, students may then apply as a Non-recent School Leaver for admission to the Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice degree. If admitted, students receive exemptions for the computing core subjects they completed in the sub-major in Information Technology. They also receive 24 credit points worth of exemptions for electives, the equivalent of a Business sub-major in the Information Technology degree.

## Both degrees – selection of international students

International applicants apply through International Programs, but are assessed by the relevant faculty. Refer to the individual degree entries in either the Business or Information Technology 2002 handbooks for further details.

## Course duration

The Bachelor of Business is offered as a threeyear, full-time, or six-year, part-time course. The Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice is offered as a four-year, full-time, or six-year, part-time course.

## Course structure

Students initially enrol in the Bachelor of Business degree and must take the sub-major in Information Technology, as advised by the Faculty of Information Technology. Students wishing to undertake this double degree program should first seek academic advice from the Faculty of Information Technology Office on telephone (02) 9514 1803.

## Other information

Students considering this double degree should talk to an academic adviser in the Faculty of Information Technology before beginning the sub-major in Information Technology.

Full details of the Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice program are contained in this handbook. Full details of the Bachelor of Business program are detailed in the 2002 handbook for the Faculty of Business.

## POSTGRADUATE COURSEWORK DEGREES

## Master of Science in Computing

Course code: MC58

◆ Testamur title: Master of Science in Computing

◆ Abbreviation: MSc

Program Leader: Dr S Simoff
 Course fee: \$18,000 (local)
 \$8,700 per semester (international)

#### Overview

The Master of Science in Computing is offered with a fixed quota of student places and the course fees have been set in accordance with University policy. For students commencing in 2002, tuition fees will be set at \$250 per credit point for local students; students normally take 12 credit points per semester. Course fees are revised from year to year in accordance with University and government policy. Details of the current fee structure may be obtained from the University Graduate School.

### Course aims

The Master of Science in Computing is a professional course. Graduates select a program of study that suits their individual career goals. For example, a program may be chosen which develops specialised expertise in computer systems, which provides a general update of information systems or which equips the student for a position in management.

## Admission requirements

Applicants for the Master of Science in Computing should have:

a) a minimum qualification equivalent to a Bachelor's degree with a major in computing/information technology (or related discipline), or a Bachelor's degree plus a Graduate Diploma in computing/information technology (or related discipline), from a recognised Australian university, and b) at least three years' full-time (or equivalent) professional computing experience.

As a guide, the level of the applicant's professional knowledge should be at least equivalent to that of a Level 3 Member of the Australian Computer Society.

Criteria for admission to the Master of Science in Computing support the University's Equal Opportunity policy.

Applicants with insufficient formal qualifications may be admitted as 'qualifying' students. Progression to registration as a Master's student would then depend on whether the results achieved in the Qualifying Program are of the standard specified in the offer of a place as a Master's Qualifying Student. Applicants with insufficient formal qualifications should submit evidence to the effect that the level of their knowledge of computing is equivalent to that described above.

## Prerequisite knowledge

All subjects in the Master of Science in Computing course are presented at the postgraduate level. Students are expected to be familiar with the undergraduate material that lies behind the postgraduate work.

For the subjects offered by the Faculty of Information Technology, before the start of each semester, a set of references to the presumed undergraduate material is given by each lecturer. It is important to note that these references are not 'pre-reading', but are a summary of the undergraduate knowledge required for each subject. Students are responsible for ensuring that they are completely familiar with the undergraduate knowledge implied by those references. If they are not, then they should defer their enrolment in that subject and should attend suitable remedial undergraduate lectures as advised by the Program Leader for the Master of Science in Computing.

For a subject offered by faculties or schools other than the Faculty of Information Technology, students are advised to contact that subject's coordinator before the start of semester to determine whether they possess the prerequisite knowledge for that subject. If students do not possess the prerequisite knowledge, they should seek advice from those schools or faculties on the feasibility of a remedial program. The Program Leader, Master of Science in Computing, will assist in obtaining this advice.

## Advanced standing

Exemption from subjects in the Master of Science in Computing program is not given on the basis of previous study. Some exemptions are granted to students who are undertaking joint qualifications at the University of Technology, Sydney.

## Advanced standing for UTS MBA graduates

Under an agreement between the Faculty of Information Technology and the Faculty of Business at UTS, students who wish to complete both the Master of Science in Computing (by coursework) and the MBA degrees are granted exemption from some of the subjects in these two degrees.

Graduates from the University's MBA program are, if admitted to the Master of Science in Computing, granted exemption from the Faculty of Business electives that could form part of the program of study for the Master of Science in Computing. In this case, the regulations outlined in the section 'Course structure' are modified as follows:

- the student must gain 36 credit points by passing Master of Science in Computing subjects offered by the Faculty of Information Technology
- the student must complete 6 credit points of research methods and 6 credit points of project which should be closely related to the student's program of study.

Students entering the Master of Science in Computing program who intend to apply subsequently for admission to the University's MBA program, should first discuss the matter both with the Program Leader, Master of Science in Computing and the Director of the MBA program in the Faculty of Business, preferably **before** they commence their studies for the Master of Science in Computing.

## Attendance

Lectures are normally given only in the evenings and attendance is required at least two evenings per week from 6.00 p.m. to 9.00 p.m.

## Course duration

The course may be taken on a part-time basis over six semesters or three years, or on a full-time basis over three semesters or approximately 18 months.

## Course structure

To complete the course, students must obtain 72 credit points. Most coursework subjects are six credit points each. Students normally complete 60 credit points of coursework subjects, 6 credit points of research methods and 6 credit points of project. There is a wide choice of subjects offered by the Faculty of Information Technology and by other faculties including Business, Law and Engineering. Students may obtain up to 24 credit points by passing approved subjects from outside the Faculty of Information Technology.

Students select their program of study with the assistance of an adviser from the Faculty of Information Technology. The subjects chosen by a student should form a coherent plan of study and be consistent with the student's professional career goals. The program of study may be a broad collection of subjects or a series of streams for those who wish to study certain areas in more depth. The underlying theme is information technology in a distributed environment. The subjects offered in this program are revised regularly to preserve the currency of the course.

## Course program

## Master of Science in Computing subjects

Each Master of Science in Computing subject is of one semester's duration. Specific subjects may be available during the Summer semester – these will be notified on an annual basis. Some subjects may be offered in 'block mode', meaning that the subject is presented in a semi-intensive format (for example, attendance may involve a whole weekend) – such offerings will be advertised as 'block mode'. Not all subjects are offered each year. They are dependent on the availability of specialist lecturing staff and sufficient interest in a subject from students. Some of the Master of Science in Computing subjects have prerequisites.

At present the intention is to offer the Master of Science in Computing subjects on a two-year cycle, however the Master of Science in Computing program is constantly under review. The list of Master of Science in Computing subjects offered is expected to expand. The contents and sequence of existing Master of Science in Computing subjects may be revised to reflect changes in the area.

Subject number	Subject name	Credit points	Semester offered
32204	Advanced Data Management	6	Α
32108	Applications of Artificial Intelligence	6	S
32546	Business Process Engineering	6	A
32517	Commerce on the Internet	6	A & S
32532	Conducting Business Electronically	6	A & S
32535	Databases in Distributed Environments	6	S
32531	Global Information Systems	6	A & 5
32208	Information Processing Strategy	6	S
32931	Information Technology Research Methods	6	A & S
32534	Knowledge Management	6	A & S
32545	Multi-agent Systems	6	S
32533	Networking Communities	6	A & S
32510	Object-oriented Programming with C++	6	\$
32536	Object-oriented Modelling	6	A
32106	Object-oriented Process	6	\$
32932	Project A1	6	A & S
32933	Project B1	6	A & S
32934	Project B2	12	A & S
32541	Project Management	6	A & S
32902	Recent Advances in Information Systems	6	S
32115	Requirements Engineering Research and Practice	6	S

A = Autumn semester

S = Spring semester

## Other subjects

The following subjects present specialised material and whether they are offered will thus depend on the availability of specialist staff and on a student meeting the prerequisites. These subjects may share lectures with senior undergraduate students and may not be available every semester. The Faculty timetable will show the availability of these subjects. A maximum of two subjects from this list may be included in a student's program.

	,	
32543	Advanced 3D Computer Animation	6ср
32542	Advanced Cognitive Modelling	6ср
32544	Advanced Image Synthesis	
	Techniques	6ср
32513	Advanced Machine Learning	6ср
32530	Building Intelligent Agents	6ср
32501	Computer Graphics	6ср
32509	Human-Computer Interaction in	
	Information Systems	6cp

## Internetworking subjects

The subjects listed below are offered in the Master of Science in Internetworking Program and are also available to Master of Science in Computing students if space is available (students enrolled in the Master of Science in Internetworking Program will be given priority).

32549	Advanced Internet Programming	6ср
32527	Internetwork Design	6ср
32516	Internet Programming	6ср
32525	Distributed Software Programming	6ср
32523	Operating Systems for	
	Internetworking	6ср
32547	Unix Systems Programming	6ср

A very limited number of places may be available in the following subjects (students enrolled in the Master of Science in Internetworking program are given priority) if the student satisfies the admission requirements for the Master of Science in Internetworking program and any subject prerequisites. Master of Science in Computing students wishing to enrol in these subjects should consult the Program Leader, Internetworking Program.

32521	WANs and VLANs	6ср
32524	LANs and Routing	6ср

No other subjects from the Master of Science in Internetworking program are available to Master of Science in Computing students.

## Information Technology Management subjects

The subjects listed below are offered in the Master of Business in Information Technology Management Program (ITMP). A small number of places may be available to Master of Science in Computing students if space is available (students enrolled in ITMP are given priority) and if the student satisfies the admission requirements for ITMP and any subject prerequisites. Master of Science in Computing students wishing to enrol in these subjects should consult the Program Leader, ITMP.

32702	Contemporary Telecommunications	6ср
32704	Strategic IT Contract Management	6ср
32604	Systems Integration	6ср

## e-Business Technology subjects

The subjects listed below are offered in the Master of Science in e-Business Technology Program. A small number of places may be available to Master of Science in Computing students if space is available (students enrolled in the Master of Science in e-Business Technology Program are given priority) and if the student satisfies the admission requirements for the Master of Science in e-Business Technology Program and any subject prerequisites. Master of Science in Computing students wishing to enrol in these subjects should consult the Program Leader, e-Business Technology Program.

-	200 10011110108) 1 100-11111	
32120	Evolution of the Internet	6ср
24726	Economics and Marketing in the	
	New Economy	6ср
32122	Business to Consumer: Fundamental	
	Principles and Technologies	6ср
32123	Business to Business: Fundamental	
	Principles and Technologies	6ср

## Interactive Multimedia subjects

The subjects below are offered in the Master of Interactive Multimedia Program. A small number of places may be available to Master of Science in Computing students if space is available (students enrolled in the Interactive Multimedia Program are given priority). Master of Science in Computing students wishing to enrol in these subjects should consult the Program Leader, Interactive Multimedia Program.

AVIGITI	icaia i rogiani.	
95563	Digital Media Development Process	6ср
95564	Digital Media Technologies	6ср
95565	Digital Graphics and the Still Image	6ср
95566	Digital Information and Interaction	
	Design	6ср
95567	Digital Media in Social Context	6ср
95568	Digital Sound and the Moving Image	6ср

## Subjects from other faculties

Postgraduate subjects from the Faculties of Law and Business are available to students in the Master of Science in Computing as electives. Students should contact the relevant faculty for prerequisites.

## Choosing a program in 2002

Students are issued with a Master's handbook which details suggested subject patterns and themes, and when individual subjects are available.

## **Project**

Students are required to undertake a research methods subject (which is offered either in Summer session or during Autumn semester) before undertaking a compulsory introductory project subject (32932 Project A1). Students may then choose to undertake an optional extensive project subject (32933 Project B1 or 32934 Project B2) in Spring semester or they may choose to undertake elective coursework subjects.

32930	Information Technology Management Research Methods	6ср
32931	Information Technology Research	r
	Methods	6ср
32932	Project A1	6ср
32933	Project B1	6ср
32934	Project B2	12cp
Possib	ole study patterns are:	

Example 1

Exam	pte i	
32930	Information Technology Management Research Methods	6ср
32931	Information Technology Research Methods and	6ср
32932	Project A1	6ср
xxxxx	Elective 1	6ср
xxxxx	Elective 2	6ср
Exam	ole 2	
32930	Information Technology, Management Research Methods	6ср
	or	
32931	Information Technology Research Methods	6ср
22022	and	,
32932	Project A1	6ср
32933	Project B1	6ср
xxxxx	Elective 1	6ср
****	Elective 1	ocp

## Example 3

32930	Information Technology Management Research Methods	6ср
	or	
32931	Information Technology Research	
	Methods	6ср
	and	
32932	Project A1	6ср
32934	Project B2	12cp

Students who enrolled prior to 2001 can elect to complete the pre-2001 program.

32932 Project A1 requires students to choose a project topic; if students complete an optional extensive project (either 32933 Project B1 or 32934 Project B2), then the project topic will carry over into that subject (32932 Project A1 involves preparation for 32933 Project B1 or 32934 Project B2). The chosen topic should be directly relevant to the student's professional career goals and should be an area of current research interest in the student's area of study.

The project work should be a vehicle for importing the knowledge learned from the coursework to the student's professional life. Students are advised to seek the assistance of the lecturing staff and/or the Program Leader, Master of Science in Computing in finalising the topic for their project work.

The Master's Project website is recommended for access to the latest information on personnel or contacts, dates and times for Project Information Sessions, Project A1 Literature Reviews, and Project B Research Seminars, and current lists of potential supervisors as well as general project information:

http://start.it.uts.edu.au/teaching/32932

## Rules and regulations

#### Subject failure

Students are permitted, at the most, two failures during the Master of Science in Computing. Note the resolution of the Faculty Board, FBMC/92/70, that any Master's degree candidate enrolled in the Master of Science in Computing who records any three failures will have his or her registration in the course discontinued. In addition, students are bound by the Rules of the University and are advised to refer to them. The Rules are published online at:

www.uts.edu.au/div/publications/policies/

#### Minimum and maximum time

There are two important University Rules concerning minimum and maximum time of which students should be aware:

- A Master's degree candidate shall not normally be eligible for the award of a Master's degree by coursework until he or she has completed at least six semesters of a part-time course. A student who is specially qualified in a relevant discipline may, with the approval of the Academic Board, be allowed to complete the course in less than the minimum time (Rule 3.3.5.2).
- A student who fails to complete all of the work prescribed for the higher degree within nine semesters from the time of his or her registration as a part-time Master's degree candidate will only be permitted to continue with the approval of the University Graduate School Board (Rule 3.3.7.1).

## Other information

Each semester the Faculty publishes the Master of Science in Computing Course Guide. This Course Guide contains much administrative information as well as a detailed statement of the course regulations. Students and prospective applicants are advised to obtain a copy of the Course Guide and to study it carefully. From August each year, an Admission package containing a copy of the Course Guide, the application forms and other relevant information is available from the UTS Student Info & Admin Centre. Note that completed application forms must be submitted to the University by the published deadline, which is usually the last week of October in the year prior to that in which admission is sought. Applicants may be required to attend an interview. The Course Guide is available online at:

http://start.it.uts.edu.au/teaching/masters

## Graduate Certificate in Information Technology Management

- Course code: MC63
- Testamur title: Graduate Certificate in Information Technology Management
- Abbreviation: none
- Program Leader: Associate Professor K Dovey
- ◆ Course fee: \$6,600 (local)¹

## Graduate Diploma in Information Technology Management

- ◆ Course code: MC75
- Testamur title: Graduate Diploma in Information Technology Management
- · Abbreviation: GradDipInfTechM
- ◆ Program Leader: Associate Professor K Dovey
- ◆ Course fee: \$13,200 [local]¹

## Master of Business in Information Technology Management

- ◆ Course code: MC85
- Testamur title: Master of Business in Information Technology Management
- Abbreviation: MBus
- ◆ Program Leader: Associate Professor K Dovey
- Course fee: \$19,800 (local)¹

#### Overview

These courses form a joint program between the Faculty of Information Technology and the Faculty of Business. Administration of these courses is the responsibility of the Faculty of Information Technology.

## Course aims

The courses aim to:

 develop the professional skills necessary for successfully undertaking the role of manager in terms of people, resources and processes in a variety of organisational contexts (which may include business, community, public, manufacturing, consultancy or professional contexts)

This course is not offered to international students.

- enable the acquisition of conceptual and analytical understanding of the corporate/ organisational needs from the differing perspectives of individuals and groups within the organisation
- provide a well-balanced selection of subjects from both advanced information technology (IT) and management, in an integrated program which is relevant to the current and future demands of the IT industry
- develop an understanding of the IT business environment and to extend knowledge and skills in specialist areas of management related to management of IT in business, and
- enhance and develop a partnership between UTS and the IT industry.

## Admission requirements

## Graduate Certificate in Information Technology Management

- a recognised Bachelor's degree (or equivalent) in an appropriate discipline such as Business or Computing. Normally students are expected to have a minimum of five years' professional work experience in the IT industry, plus some supervisory experience. Selection for admission is based on merit. Applicants should also provide references and a CV outlining their practical experience, or
- evidence of general and professional qualifications, such as other postsecondary school qualifications that can establish the applicant's aptitude, knowledge and practical experience, which will satisfy the Faculty Board in Information Technology that the applicant possesses the educational preparation and capacity to pursue postgraduate studies (experience in the IT industry will be especially important in this regard, e.g. five years' minimum vocational experience).

## Graduate Diploma in Information Technology Management

a recognised Bachelor's degree (or equivalent) in an appropriate discipline such as Business or Computing. Normally students are expected to have a minimum of five years' professional work experience in the IT industry plus some supervisory experience. Selection for admission is based on merit. Applicants should also provide references and a CV outlining their practical experience, or

- the prior successful completion of the Graduate Certificate in Information Technology Management (such students will therefore be exempt from Semesters 1 and 2), where entry to the Graduate Certificate was based on a recognised Bachelor's degree (or equivalent) in an appropriate discipline such as Business or Computing, or
- the successful completion of an approved bridging program for non-graduate entry (i.e. the Graduate Certificate in Information Technology Management) with passes in all subjects and a Credit average over the entire course.

## Master of Business in Information Technology Management

- a recognised Bachelor's degree (or equivalent) in an appropriate discipline such as Business or Computing. Normally students are expected to have a minimum of five years' professional work experience in the IT industry, plus some supervisory experience. Selection for admission is based on merit. Applicants should also provide references and a CV outlining their practical experience, or
- the prior successful completion of the Graduate Diploma in Information Technology Management (such students will therefore be exempt from Semesters 1, 2, 3 and 4), or
- the successful completion of an approved bridging program for non-graduate entry (i.e. the Graduate Certificate in Information Technology Management) with passes in all subjects and a Credit average over the entire course.

It should be noted that applicants for these courses may be required to attend an interview.

#### Presumed knowledge and prerequisites

Subjects in the Graduate Certificate, Graduate Diploma and Master's courses are presented at postgraduate level. Students are expected to be familiar with the undergraduate material on which the postgraduate work is based. A set of references to the presumed undergraduate material is given by each lecturer before the start of each semester for the subjects offered by the Faculty of Information Technology and the Faculty of Business. It is important to note that these references are not 'pre-reading' but are a summary of the undergraduate knowledge required for each

subject. Students are responsible for ensuring that they are completely familiar with the undergraduate knowledge implied by those references. If they are not, then they should seek advice from the Program Leader, Information Technology Management Program, in the first instance, and may then be advised to contact the Subject Coordinator before the start of semester to determine whether they possess the prerequisite knowledge for that subject.

For subjects offered by faculties or schools other than the Faculty of Information Technology and the Faculty of Business, students are advised to contact that subject's coordinator before the start of semester to determine whether they possess the prerequisite knowledge for that subject. If students do not possess the prerequisite knowledge, then they should seek advice from that school or faculty on the feasibility of a remedial program. The Program Leader, Information Technology Management Program, will assist in obtaining this advice.

In addition, there are prerequisite requirements within the structure of the course itself (see 'Course structure' below).

# Advanced standing

Students may apply for exemption from core subjects on the basis of the successful completion of equivalent postgraduate level subjects taken in other UTS faculties or UTS approved universities. Students interested in applying for subject exemptions should in all cases first consult the Program Leader, Information Technology Management Program.

Note that exemptions are not normally granted to students for elective subjects.

#### Course duration

Students may commence these courses in either Autumn or Spring semester.

## Graduate Certificate in Information Technology Management

This course is normally completed in one year (two semesters) of part-time study.

#### Graduate Diploma in Information Technology Management

This course is normally completed in two years (four semesters) of part-time study.

## Master of Business in Information Technology Management

The full Master's degree course is normally completed in three years (six semesters) of part-time study. The project is normally commenced in the fifth semester, together with one subject related to research methodology.

#### Course structure

All subjects are assessed to the Master's standard, regardless of the course in which a student is enrolled. Therefore, a student who takes several individual subjects may later gain credit towards these awards.

The courses have been designed to allow freedom of choice at the individual subject level. The subjects at the Graduate Certificate level aim to teach the student skills and competencies for IT management. At the Graduate Diploma level, the subjects aim to focus on organisational strategies and planning. At the Master's level, the subjects are related to organisational development and research for the IT industry.

Core subjects are offered by the Faculties of Information Technology and Business on a regular basis. Additional subjects available on an elective basis are offered depending on demand and the availability of specialist staff. The industrially-linked project must build on the core/elective subjects already taken by the student and should ideally be related to his or her place of work.

#### Course programs

#### Level 1 - Non-award

A student may take any number of subjects relevant to his or her professional needs. Subject prerequisites, if any, need to be taken into account.

All subjects are presented and assessed to the Master's level. Therefore, a student who takes several appropriate subjects may later gain credit towards these awards.

No formal qualification is awarded by UTS.

## Level 2 - Graduate Certificate in Information Technology Management (24cp)

A stud	dent must complete:	
	the following three core subjects	
21788	Effective People Management	6ср
21789	Contemporary Management	
	Practices	6ср
32601	Advanced Project Management	6ср
	plus one elective from the list below	

#### Level 3 - Graduate Diploma in Information Technology Management (48cp)

A student must complete the requirements for the Graduate Certificate in Information Technology Management (24cp);

	plus the following two core subjects	
21806	Managing Organisational Change	6ср
21808	Strategic Business Management	6ср
	plus two electives from the list below	,

#### Flectives

24704	Managing Client Relations	6ср
32604	Systems Integration	6ср
32702	Contemporary Telecommunications	6ср
32703	Information Technology Strategy	6ср
32704	Strategic IT Contract Management	6ср
	plus one of the following	
25705	Financial Modelling and Forecasting	6ср
25742	Financial Management	6ср
22746	Managerial Accounting	6ср
22747	Accounting for Managerial Decisions	6ср
	or other electives as available	

# Level 4 - Master of Business in Information Technology Management (72cp)

A student must complete the requirements for the Graduate Diploma in Information Technology Management (48cp).

In addition students must complete one of the following curriculum options:

Information Technology Management

6ср

Research Methods

#### Example 1

32932	Project A1	6ср	
xxxxx	Elective 1	6ср	
xxxxx	Elective 2	6ср	
Exam	ple 2		
32930	2930 Information Technology Management		
	Research Methods	6ср	
32932	Project A1	6ср	
32933	Project B1	6ср	
xxxxx	Elective 1	6ср	

#### Example 3

32930	Information Technology Management	
	Research Methods	6ср
32932	Project A1	6ср
32934	Project B2	12cp

#### Project

As part of the Master of Business in Information Technology Management, students are required to undertake a research methods subject (which is offered either at Summer session or during Autumn semester) before undertaking a compulsory introductory project subject (32932 Project A1). Students may then choose to undertake an optional extensive project subject (32933 Project B1 or 32934 Project B2) in Spring semester or they may choose to undertake elective coursework subjects.

Students who enrolled prior to 2001 can elect to complete the pre-2001 program.

32932 Project A1 requires students to choose a project topic; if students complete an optional extensive project (either 32933 Project B1 or 32934 Project B2), then the project topic is carried over into that subject (32932 Project A1 involves preparation for 32933 Project B1 or 32934 Project B2). The chosen topic should be directly relevant to the student's professional career goals and should be an area of current research interest in the student's area of study.

The project work should be a vehicle for importing the knowledge learned from the coursework to the student's professional life. Students are advised to seek the assistance of the lecturing staff and/or the Program Leader, Information Technology Management in finalising the topic for their project work.

The Master's Project website is recommended for access to the latest information on personnel or contacts, dates and times for Project Information Sessions, Project A1 Literature Reviews, and Project B Research Seminars, and current lists of potential supervisors as well as general project information:

http://www.start.it.uts.edu.au/teaching/ 32932

#### Other information

All inquiries regarding these courses should be directed to Alison Waugh, Professional Programs Manager, on telephone (02) 9514 1925. Further information can be accessed online at: http://it.uts.edu.au/itmp

# Graduate Certificate in Internetworking

◆ Course code: MC82

 Testamur title: Graduate Certificate in Internetworking

◆ Abbreviation: none

Program Leader: Mr U Szewcow
 Course fee: \$6.600 (local)¹

Graduate Diploma in

Internetworking

Course code: MC81

 Testamur title: Graduate Diploma in Internetworking

Abbreviation: GradDipInternetworking

Program Leader: Mr U Szewcow

Course fee: \$13,200 (local)¹

# Master of Science in Internetworking

◆ Course code: MC80

 Testamur title: Master of Science in Internetworking

◆ Abbreviation: MSc

◆ Program Leader: Mr U Szewcow

◆ Course fee: \$19,800 (local)¹

#### Course aims

This program is intended for computing or engineering graduates with or without networking experience who wish to learn or extend their knowledge of networking. As students have a variety of backgrounds, there is a degree of subject choice in the program to meet individual's needs.

The program aims to:

- meet the growing needs of industry for networking specialists
- allow the student to gain a University qualification and prepare them for CCNA (Cisco Certified Network Associate) and CCNP (Cisco Certified Network Professional) industry certification within the UTS/Cisco Local Network Academy
- retrain IT professionals wishing to move into networking and internetworking
- provide a thorough and practical grounding in networking, network design, network administration and network management

- provide a solid foundation for the writing of networked applications using Java and other WWW technologies, and
- meet students' needs through project work and elective subjects, for some specialisation, at any layer of the OSI reference model.

# Admission requirements

Applicants should have a first degree. A first degree in Computing Science, Computer Systems Engineering, Telecommunications or cognate discipline is an advantage but not essential.

Entry based on experience in the networking industry is possible. An applicant's suitability for the program, in this case, is determined by academic staff and may require an interview.

#### Experience/background

Two years experience in networking or other positions in the IT industry is desirable.

# Advanced standing

Exemptions are only granted for subjects from the Graduate Certificate level. These exemptions may be applied for if applicants have successfully completed studies of a comparable standard, or can demonstrate equivalent, comparable, relevant experience.

#### Course duration

The Graduate Certificate, Graduate Diploma and Master's in Internetworking are only offered in part-time mode. They normally take one, two and three years, respectively, to complete.

## Course programs

# Graduate Certificate in Internetworking (24cp)

32516	Internet Programming	6ср
32521	WANs and VLANs	6ср
32524	LANS and Routing	6ср
32547	<b>UNIX Systems Programming</b>	6ср

#### Graduate Diploma in Internetworking (48cp)

A student must complete the requirements for the Graduate Certificate in Internetworking (24cp);

plus four of the following subjects (24cp)
32009 Advanced Routing Principles 6cp
32010 Wide Area Network Implementation 6cp

This course is not offered to international students.

32011	Multilayer Switched Networks	6ср
32520	UNIX Systems Administration	6ср
32523	Operating Systems for	
	Internetworking	6ср
32525	Distributed Software Programming	6ср
32527	Internetwork Design	6ср
32528	Network Management	6ср
32548	Network Security	6ср
32549	Advanced Internet Programming	6ср
3xxxx	An elective approved by the Program	ı
	Leader, Internetworking Program	6ср

#### Master of Science in Internetworking (72cp)

A student must complete the requirements for the Graduate Diploma in Internetworking (48cp);

32931	plus the following subjects Information Technology Research	
	Methods	6ср
32932	Project A1	6ср

plus an additional 12 credit points of subjects selected from subjects not already completed from the list under the Graduate Diploma in Internetworking and the subjects 32933 Project B1 (6cp) and 32934 Project B2 (12cp). Rules for taking the additional project subjects are outlined below.

#### Project

As part of the Master of Science in Internetworking, students are required to undertake 32931 Information Technology Research Methods (or 32930 Information Technology Management Research Methods with the permission of the Program Leader, Internetworking Program) and a compulsory introductory project subject (32932 Project A1). Students may then choose to undertake an optional extensive project subject (32933 Project B1 or 32934 Project B2) in Spring semester or they may choose to undertake elective coursework subjects.

Possible study patterns are:

Methods

# Example 1

	Project A1 Elective 1	6cp 6cp	
xxxx	Elective 2	6ср	
Example 2			
32931	Information Technology Research		
	Methods	6ср	
32932	Project A1	6ср	
32933	Project B1	6ср	
xxxxx	Elective 1	6ср	

Information Technology Research

6cp

#### Example 3

32931	Information Technology Research	
	Methods	6ср
32932	Project A1	6ср
32934	Project B2	12cp

Students who enrolled prior to 2001 can elect to complete the pre-2001 program.

32932 Project A1 requires students to choose a project topic; if students complete an optional extensive project (either 32933 Project B1 or 32934 Project B2), then the project topic is carried over into that subject (32932 Project A1 involves preparation for 32933 Project B1 or 32934 Project B2). The chosen topic should be directly relevant to the student's professional career goals and should be an area of current research interest in the student's area of study.

The project work should be a vehicle for importing the knowledge learned from the coursework to the student's professional life. Students are advised to seek the assistance of the lecturing staff and/or the Program Leader, Internetworking Program in finalising the topic for their project work.

The Master's Project website is recommended for access to the latest information on personnel or contacts, dates and times for Project Information Sessions, Project A Literature Reviews, and Project B Research Seminars, and current lists of potential supervisors as well as general project information:

www.start.it.uts.edu.au/teaching/32932

#### Other information

Further information can be accessed online at: www.iwork.uts.edu.au

# Graduate Certificate in e-Business Technology

◆ Course code: MC77

 Testamur title: Graduate Certificate in e-Business Technology

· Abbreviation: none

• Program Leader: Dr J Feuerlicht

Course fee: \$7,200 (local)¹

# Graduate Diploma in e-Business Technology

◆ Course code: MC78

 Testamur title: Graduate Diploma in e-Business Technology

◆ Abbreviation: GradDipe-BusTech

Program Leader: Dr J Feuerlicht

Course fee: \$14,400 (local)¹

# Master of Science in e-Business Technology

Course code: MC79

 Testamur title: Master of Science in e-Business Technology

· Abbreviation: MSc

Program Leader: Dr J Feuerlicht

Course fee: \$21,600 (local)¹

#### **Overview**

This program has been developed in conjunction with PricewaterhouseCoopers and will be taught as a collaboration between PricewaterhouseCoopers and the Faculty of Information Technology. As our key collaborator, PricewaterhouseCoopers help to ensure the program's currency, giving students the benefit of their real world experience in ebusiness solutions and access to state-of-theart B2B and B2C-supporting products.

#### Course aims

The program is designed to meet the growing needs of industry for IT specialists who can operationalise e-business strategies for their organisations as they navigate future technological and commercial change. Students learn what is needed to become a member of an e-business systems development team, or to lead and manage e-business systems development projects. The course provides an

introduction to e-business technology including emerging economic and business models and the technologies that make them happen, before developing the abilities required for high-level analysis and synthesis in e-business technology.

# Admission requirements

## Graduate Certificate in e-Business Technology

- an undergraduate degree in computing or a closely-related discipline from a recognised university or other higher education institution
- a minimum of at least two years work experience in systems development, including programming, or
- evidence of general and professional qualifications, such as other post-secondary school qualifications that can establish the applicant's aptitude, knowledge and practical experience, which will satisfy the Faculty Board in Information Technology that the applicant possesses the educational preparation and capacity to pursue postgraduate studies (experience in the IT industry will be especially important in this regard, e.g. five years' minimum vocational experience).

#### Graduate Diploma in e-Business Technology

- an undergraduate degree in computing or a closely-related discipline from a recognised university or other higher education institution
- a minimum of at least two years work experience in systems development, including programming
- the prior successful completion of the Graduate Certificate in e-Business Technology (such students are therefore exempt from Semesters 1 and 2), where entry to the Graduate Certificate was based on a recognised Bachelor's degree (or equivalent) in computing or a closely related discipline, or
- the successful completion of an approved bridging program for non-graduate entry (i.e. the Graduate Certificate in e-Business Technology) with passes in all subjects and a Credit average over the entire course.

This course is not offered to international students.

#### Master of Science in e-Business Technology

- an undergraduate degree in computing or a closely-related discipline from a recognised university or other higher education institution
- a minimum of at least two years work experience in systems development, including programming
- the prior successful completion of the Graduate Diploma e-Business Technology (such students are therefore exempt from Semesters 1, 2, 3 and 4), or
- the successful completion of an approved bridging program for non-graduate entry (i.e. the Graduate Certificate in e-Business Technology) with passes in all subjects and a Credit average over the entire course.

It should be noted that applicants for these courses may be required to attend an interview.

# Advanced standing

Exemptions are only granted for subjects at the Graduate Certificate level. These may be applied for if students have successfully completed studies of a comparable standard, or if they can demonstrate equivalent, comparable, relevant experience.

#### Course duration

The Graduate Certificate, Graduate Diploma and Master's in e-Business Technology are only offered in part-time mode. They normally take one, two and three years, respectively, to complete.

## Course programs

#### Graduate Certificate in e-Business Technology (24cp)

32120	Evolution of the Internet	6ср
24726	Economics and Marketing in the	
	New Economy	6ср
32122	Business to Consumer: Fundamental	
	Principles and Technologies	6ср
32123	Business to Business: Fundamental	
	Principles and Technologies	6ср

# Graduate Diploma in e-Business Technology (48cp)

A student must complete the requirements for the Graduate Certificate in e-Business Technology (24cp);

	plus the following subjects (18cp)	
32124	e-Business Project Management	6ср
32125	Enterprise Application Integration: Principles and Technologies	6ср
32126	Creative Design and Interactive Marketing	6ср
	plus one of the following subjects	
32127	Business to Consumer: Advanced Principles	6ср
32128	Business to Business: Advanced Principles	6ср

# Master of Science in e-Business Technology (72cp)

A student must complete the requirements for the Graduate Diploma in e-Business Technology (48cp);

	plus the following subjects (12cp)	
32931	Information Technology Research	
	Methods	6ср
32932	Project A1	6ср
	plus 12cp of the following subjects	
32549	Advanced Internet Programming	6ср
32129	Enterprise Application Integration:	
	Advanced Principles and	
	Technologies	6ср
32524	LANs and Routing	6ср
32933	Project B1	6ср
32934	Project B2	12cp

#### Project

As part of the Master of Science in e-Business Technology, students are required to undertake a research methods subject (or 32930 Information Technology Management Research Methods with the permission of the Program Leader, e-Business Technology Program), before undertaking a compulsory introductory project subject (32932 Project A1). Students may then choose to undertake an optional extensive project subject (32933 Project B1 or 32934 Project B2) in Spring semester or they may choose to undertake elective coursework subjects.

32931 Information Technology Research	
Methods	6ср
Project A1	6ср
Project B1	6ср
Project B2	12cp
	Methods Project A1 Project B1

#### Possible study patterns are:

#### Example 1

32931	Information Technology Research	
	Methods	6ср
32932	Project A1	6ср
xxxxx	Elective 1	6ср
xxxx	Elective 2	6ср
Exam	ole 2	

32931	Information Technology Research	
	Methods	6ср
32932	Project A1	6ср
32933	Project B1	6ср
xxxxx	Elective 1	6ср
		•

#### Example 3

32931	Information Technology Research	
	Methods	6ср
32932	Project A1	6ср
32934	Project B2	12cp

32932 Project A1 requires students to choose a project topic; if students complete an optional extensive project (either 32933 Project B1 or 32934 Project B2), then the project topic is carried over into that subject (32932 Project A1 involves preparation for 32933 Project B1 or 32934 Project B2). The chosen topic should be directly relevant to the student's professional career goals and should be an area of current research interest in the student's area of study.

Alternatively, the topic may be chosen to be of value to the student's future career. The project work should be a vehicle for importing the knowledge learned from the coursework to the student's professional life. Students are advised to seek the assistance of the lecturing staff and/or the Program Leader, e-Business Technology Program in finalising the topic for their project work.

The Master's Project website is recommended for access to the latest information on personnel or contacts, dates and times for Project Information Sessions, Project A1 Literature Reviews, and Project B Research Seminars, and current lists of potential supervisors as well as general project information:

www.start.it.uts.edu.au/teaching/32932

# **Graduate Certificate in** Information Technology¹

Course code: MC67

 Testamur title: Graduate Certificate in Information Technology

Abbreviation: none

Program Leader: Mr P Bebbington

Course fee: \$6.000 (local)²

# Graduate Diploma in Information Technology¹

Course code: MC52

 Testamur title: Graduate Diploma in Information Technology

Abbreviation: GradDipIT

Program Leader: Mr P Bebbington

◆ Course fee: \$12,000 (local) \$8,700 per semester (international)

# Master of Information Technology¹

Course code: MC59

◆ Testamur title: Master of Information Technology

Abbreviation: MIT

Program Leader: Mr P Bebbington

 ◆ Course fee: \$18,000 (local) \$8,700 per semester (international)

#### **Overview**

These courses comprise a set of related offerings:

- Graduate Certificate in Information Technology - 24cp
- Graduate Diploma in Information Technology – 48cp
- Master of Information Technology 48cp.

These courses will be introduced in Autumn 2002, subject to approval by Academic Board. These are fee-paying courses. Entry to the Master of Information Technology is only available to graduates of the Graduate Diploma in Information Technology which effectively provides 24 credit points of advanced standing against a normal 72 credit point Master's degree.

Subject to approval.

This course is not offered to international students.

#### Course aims

# Graduate Certificate in Information Technology

#### Stream 1 (general; for progression to Graduate Diploma)

This form of the Graduate Certificate provides an introduction to information technology for those students who are uncertain of their capabilities in the discipline, or who wish to gain only a very basic knowledge of the area.

#### Stream 2 (specialised subject sequence)

This form of the Graduate Certificate enables students who have a degree in IT, or a related field, to undertake a specialised sequence of subjects in an area not covered in their previous studies.

# Graduate Diploma in Information Technology

The Graduate Diploma enables students to gain the basic knowledge required of an IT professional, plus gain knowledge in a specialised area.

#### Master of Information Technology

The Master's-level program is designed to enable students to achieve a comprehensive and advanced understanding of information technology.

# Admission requirements

#### Graduate Certificate in Information Technology

#### Stream 1

- minimum qualification equivalent to a Bachelor's degree from a recognised Australian university, and
- little or no formal IT education or experience.

#### Stream 2

- minimum qualification equivalent to a Bachelor's degree in information technology, or a related discipline, from a recognised Australian university, and
- a minimum of at least two years work experience in the IT area.

# Graduate Diploma in Information Technology

#### Direct entry

- minimum qualification equivalent to a Bachelor's degree from a recognised Australian university, and
- little or no formal IT education or experience, and
- Graduate Certificate IT Stream 1 entrant.

#### Transfer from Graduate Certificate

Successful completion of at least two subjects in the Graduate Certificate in Information Technology with no failures in any individual subject.

#### Master of Information Technology

There is no direct entry to the Master of Information Technology. Students must complete the Graduate Diploma of Information Technology subjects plus two core subjects (12 credit points) and 36 credit points of electives. Entry is only by completion of Graduate Diploma at Credit average, or better, across all subjects, and no failures in any individual subject.

# Advanced standing

# Graduate Certificate in Information Technology

There are no exemptions granted at Graduate Certificate in Information Technology level.

# Graduate Diploma in Information Technology

Up to 24 credit points of core subjects may be exempted. Exemption is on the basis of tertiary study undertaken within three years prior to the commencement of this course, or demonstrable extensive industrial experience in the area. Exemption is only granted for core subjects undertaken in the Graduate Certificate of Information Technology. In special circumstances, students may be granted exemption for one additional core subject but only on the basis that an extra elective subject is undertaken in its place. The Graduate Certificate in Information Technology articulates into this course.

#### Master of Information Technology

There are no exemptions granted in this course.

#### Course duration

The Graduate Certificate is offered on a onesemester, full-time, or two-semester, parttime basis.

The Graduate Diploma is offered on a twosemester, full-time, or four-semester, parttime basis.

The Master's is offered on a two-semester, full-time, or four-semester, part-time basis.

## Course programs

### Graduate Certificate in Information Technology (24cp)

#### Stream 1

Students normally take four of the core subjects offered in the Graduate Diploma but may, with the approval of the Program Leader, take up to two of the electives offered in the Graduate Diploma in place of core subjects.

#### Stream 2

Subjects are taken normally from the list of core and elective subjects offered in the Graduate Diploma. These subjects are undergraduate in content.

## Graduate Diploma in Information Technology (48cp)

Information Systems Foundations	6ср
Systems Development	6ср
Data Communications	6ср
Database Management Systems	6ср
Programming Fundamentals	6ср
Electives	18ср
	Information Systems Foundations Systems Development Data Communications Database Management Systems Programming Fundamentals Electives

Electives are selected from a defined list that allows for the core knowledge gained in the Graduate Diploma and time constraints of elective sequences.

#### Master of Information Technology (48cp)

A student must complete the requirements for the Graduate Diploma in Information Technology (48cp);

	plus complete the following subject	S
32113	Advanced Database	6ср
32114	Advanced Data Communications	6ср
3xxxx	Electives	36cp

Electives are selected from those available in Master of Science in Computing program provided prerequisites are met.

# Rules and regulations

All students enrolled in this course should be aware of the following University Rules under which a student's registration will be discontinued.

#### Maximum time

Students will have their registration discontinued for failure to complete these courses in the required maximum time. The maximum time limits are:

- Graduate Certificate in Information Technology – three semesters for both full time and part time
- Graduate Diploma in Information Technology three semesters, full time, and six semesters, part time
- Master of Information Technology three semesters, full-time, and six semesters, part time.

These time limits are not inclusive of periods of approved leave of absence (see Rule 3.2.6.1).

#### Unsatisfactory progress

Students will have their registration discontinued for any three failures in the course (unsatisfactory progress as defined by the Faculty Board resolution, FBMC/94/80) (Rule 3.2.6.2).

# Graduate Certificate in Interactive Multimedia

◆ Course code: MC72

 Testamur title: Graduate Certificate in Interactive Multimedia

Abbreviation: none

Program Leader: Mr G Matthews

Course fee: \$6,000 (local)¹

# Graduate Diploma in Interactive Multimedia

◆ Course code: MC71

 Testamur title: Graduate Diploma in Interactive Multimedia

◆ Abbreviation: GradDipIM

Program Leader: Mr G Matthews

◆ Course fee: \$12,000 (local)
 \$8,700 per semester (international)

# Master of Interactive Multimedia

◆ Course code: MC70

 Testamur title: Master of Interactive Multimedia

Abbreviation: MIM

Program Leader: Mr G Matthews

Course fee: \$18,000 (local)
 \$8,700 per semester (international)

#### **Overview**

These courses comprise a set of articulated offerings:

- Graduate Certificate in Interactive Multimedia – 24cp
- Graduate Diploma in Interactive Multimedia (24cp plus Graduate Certificate) – 48cp
- Master of Interactive Multimedia (24cp plus Graduate Diploma) – 72cp.

These are fee-paying courses. While the program will be managed by the Faculty of Information Technology, it is a joint program between the Institute for Interactive Media and Learning (IML) and a number of teaching faculties.

#### Course aims

The program is designed for students from a wide variety of background disciplines who may or may not already be working in areas of multimedia. For this reason, the program contains a considerable number of elective subjects to enable students to gain new areas of knowledge or broaden existing areas. It has also been designed as an articulated program commencing with a Graduate Certificate, then a Graduate Diploma and finally a Master's degree. Non-graduate entry into the Graduate Certificate only will be possible for applicants with substantial senior professional experience. Successful completion of the Graduate Certificate at some appropriately defined level by such students will permit them to articulate into the Graduate Diploma.

# Admission requirements

#### Graduate Certificate in Interactive Multimedia

Applicants need to have one of the following:

- a three-year undergraduate degree (or equivalent)
- a diploma and considerable relevant professional experience, or
- substantial senior professional experience.

Places in the course are limited and applicants should indicate an informed understanding of how their undergraduate qualifications and work experience fit with their proposed multimedia studies to open up future career directions.

#### Graduate Diploma in Interactive Multimedia

Applicants need to have one of the following:

- a three-year undergraduate degree (or equivalent), and either
  - (i) relevant professional experience, or
  - (ii) a Credit average or better in a Graduate Certificate in Interactive Multimedia
- a diploma and substantial relevant professional experience, or
- substantial senior professional experience.

#### Master of Interactive Multimedia

Applicants need to have one of the following:

- an Honours degree (or equivalent)
- a three-year Bachelor degree (or equivalent), and either

This course is not offered to international students.

- (i) two years of relevant professional experience, or
- (ii) a Credit average or better in a Graduate Certificate or Graduate Diploma in Interactive Multimedia, or
- outstanding professional experience at a senior level.

Note: Relevant professional experience is not restricted to experience in multimedia, the traditional media or computing, but may include experience in any field which will augment the applicant's capacity to become a good multimedia professional. The onus is on the applicant to demonstrate its relevance.

# Advanced standing

Given the interdisciplinary focus and teamwork emphasis of these courses, advanced standing and subject exemptions are not normally granted for other postgraduate study or work experience.

#### Course duration

The Graduate Certificate, Graduate Diploma and the Master's degree are offered on a parttime and a full-time basis. Because of visa requirements, international students can enrol in the Graduate Diploma and Masters courses only and must do so on a full-time basis. Parttime courses normally take one, two and three years, respectively, to complete. Full-time courses normally take one, two and three semesters, respectively, to complete.

## **Course structure**

All students undertake a core course of study in interactive multimedia. This consists of six 6-credit-point core subjects which may be undertaken at various levels of the program: two core subjects in the Graduate Certificate; a further two core subjects in the Graduate Diploma; and the final two subjects in the Master's. At the Graduate Certificate and Graduate Diploma levels, the balance of the program comprises two elective subjects (6 credit points each), which may include core subjects for students intending to exit at Graduate Certificate or Graduate Diploma level. The Master's degree concludes with a 12-credit-point project subject.

# Course program

# Graduate Certificate in Interactive Multimedia (24cp)

	two of the following core subjects	
95563	Digital Media Development Process	6ср
95564	Digital Media Technologies	6ср
95565	Digital Graphics and the Still Image and	6ср
xxxxx	Two electives subjects	12cp
Multin	nedia (48cp)	
	two of the following core subjects	
95563		6ср
	two of the following core subjects	6ср 6ср
95563	two of the following core subjects Digital Media Development Process	

#### Master of Interactive Multimedia (72cp)

xxxxx Four electives subjects

		-1
95xxx	Six core subjects	36ср
xxxxx	Four electives subjects	24cp
95569	Digital Media Project	12cp

24cp

#### Core subjects

95563	Digital Media Development Process	6ср
95564	Digital Media Technologies	6ср
95565	Digital Graphics and the Still Image	6ср
95566	Digital Information and Interaction	_
	Design	6ср
95567	Digital Media in Social Context	6ср
95568	Digital Sound and the Moving Image	6ср

#### Project subject

95569	Digital Media Project	12cp
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#### Electives

Students are advised to choose their electives from a group of related subjects and use their choices to build upon current skills where appropriate and to further their understanding and knowledge in a particular area. Electives may be chosen from across the University and must be approved by the relevant faculty. Students should seek advice from the relevant faculties and/or from IML before selecting their elective subjects.

# **FACULTY RESEARCH DEGREES**

General inquiries should be directed to:

University Graduate School telephone (02) 9514 1523

or (within the Faculty)

Graduate Research and Liaison Officer telephone (02) 9514 1806

Applicants for research degrees should discuss their proposed research with either the Associate Dean (Research, Policy and Planning), or their chosen supervisor before submitting applications. The Faculty's Graduate Research and Liaison Officer can assist applicants in contacting members of staff and in completing the application form.

#### Research areas

Areas of particular interest for work towards research degrees in the Faculty of Information Technology include:

- computer graphics, image processing
- computer-supported cooperative work
- data mining
- distributed and object databases
- distributed multimedia
- distributed systems
- information processing strategy, systems management
- local networks and network interface technology
- logic in computer science
- machine intelligence, knowledge-based systems
- multi-agent systems
- object technology
- parallel programming
- quality of systems and software: software process improvement
- requirements engineering
- semantics and design of programming languages
- usability of systems and software.

# Computing Sciences research laboratories

Within the Faculty, a wide range of information technology research is supported by a variety of research laboratories. Graduate research students, academics, visiting researchers and research assistants undertake collaborative research within these laboratories. The quality and relevance of research in the laboratories is enhanced by well-established links, both with industry and with overseas research institutions.

The major laboratories are:

Computer Graphics Laboratory – using seven Silicon Graphics workstations, this laboratory is concerned with the development of realistic images and computer animation. Other areas include efficient contour algorithms, human movement, image animation and textual modelling (contact: Dr Kevin Suffern).

Cooperative Systems Laboratory – focuses on the implementation and data modelling of distributed databases, client-server computing, cooperative workgroup systems, the development of methods for integrating databases with expert systems, the modelling of constraints, the development of design tools and the integration of groupware with databases (contact: Dr George Feuerlicht, Professor Igor Hawryszkiewyczm or Professor John Debenham).

**Software Research Laboratory** – includes two groups:

- Algorithms and Languages Group investigates programming languages and paradigms, logic in computer science, database theory, concurrency, software engineering and formal methods, and category theory (contact: Associate Professor Barry Jay).
- Artificial Intelligence Group interests include multi-agent systems, case-based reasoning, cognitive modelling, knowledge engineering (contact: Professor John Debenham).

CRC Distributed Systems Technology Laboratory – the primary focus is on management security and performance for controlled and efficient access to the resources of distributed systems such as databases, collaboration software and distributed software tools (contact: Professor Michael Fry).

Distributed Multimedia Laboratory – examines technology, protocols and implementation issues for very high-band-width multimedia technology over computer networks. Work includes distance interaction of design, editing and performance groups and network traffic performance, supporting diverse components (contact: Professor Michael Fry).

**Usability Laboratory** – investigates the methods and measurement techniques for developing effective and usable human-computer interaction methods for different kinds of operating environments, including design and system development (contact: Dr Toni Robertson).

# **Doctor of Philosophy**

◆ Course code: MC54

Testamur title: Doctor of Philosophy

· Abbreviation: PhD

Course fee: see note (local)
 \$7,500 per semester (international)

The Doctor of Philosophy (PhD) is intended for students who wish to pursue research at the highest level. Such research is expected to demonstrate significant originality and make a substantial contribution to computing knowledge. For specific areas of interest in research work in the Faculty of Information Technology, refer page 83. A limited number of stipends are available at \$22,000 p.a. from the Faculty of Information Technology.

# Attendance pattern

The Doctor of Philosophy degree is available on both a full-time and a part-time basis. The normal duration of enrolment is three years for full-time attendance and six years for part-time attendance. Candidates who already possess a degree at the Master's level may be permitted to complete their PhD in two years of full-time research, or three years of part-time research. The maximum duration of enrolment is five years for full-time students and seven-and-a-half years for part-time students.

The Faculty of Information Technology has a strong preference for research work that proceeds at a full-time pace. This preference should not be seen as a deterrent to those students who wish to remain in employment. Students who are working in a full-time job are encouraged to select a topic for their research which is closely aligned with their professional work. Once such a topic has been selected, the Faculty usually requires that the student's employer provide a statement to the effect that at least half of the student's working week will be devoted to work which is directly relevant to the research. The student is then expected to contribute some of his or her own time to the project so that the total number of hours devoted to research is that expected of full-time attendance.

Note: Research degrees are offered on a sponsored, scholarship, faculty part-sponsored, or full-fee paying basis. Students should contact the Faculty or the University Graduate School for further details. There are, however, student service fees to be paid (see Fees and costs, page 9). The Faculty of Information Technology offers fee waivers to all students and these are applicable to both local and international students.

# Application

Application forms for all postgraduate courses may be obtained from the UTS Student Info & Admin Centre. Applicants should hold a First Class or Second Class (Division 1) Honours degree with a major computing component, or a Master's degree in an appropriate area, or have previously undertaken other postgraduate studies in computing. Prospective applicants are expected to have developed interests in a specific area of research, and should have one or more outline proposals for research work in that area. Before submitting a formal application for admission to this degree course, applicants should first seek the approval of the Faculty for their proposed research work. To gain this approval, applicants should initially:

- send a summary proposal of approximately 1,000 words to the Associate Dean (Research, Policy and Planning), Faculty of Information Technology, containing references to seminal works in the area of proposed research. If the proposal is appropriate for the Faculty, the Associate Dean (Research, Policy and Planning) will then refer the applicant to a suitable member of staff for further detailed discussion, or
- approach a suitable member of the Faculty's academic staff directly and discuss the proposed research area.

All Doctor of Philosophy students at UTS are required to have at least two supervisors for their research work, one of whom should be an academic staff member of the University and, normally, one of whom should hold a Doctoral degree. Of the two supervisors, one will be the principal supervisor and the other the co-supervisor.

Prospective applicants should seek agreement from a member of the Faculty's academic staff to act as a (principal) supervisor for the proposed research if the application is successful. Once this agreement has been obtained, applicants may then apply formally for admission by completing an Application for Candidature – Doctoral Degrees form and the Faculty's Supplementary Doctoral Application form. These forms must be signed by the applicant, the proposed supervisor and the Head of Department.

# **Progress reports**

All Doctor of Philosophy students are required to submit, in consultation with their supervisors, a progress report at the end of each semester. The University Graduate School contacts each student and their supervisor(s) to initiate this process. Students are also required to complete a Doctoral Assessment and seminar.

#### Submission of thesis

All candidates for the degree of Doctor of Philosophy should give the Registrar two months' written notice of intention to submit their written thesis. Appropriate forms and the information brochure *Presentation and Submission of Theses for Higher Degrees* are available from the University Graduate School.

# Master of Science

Course code: MC51

◆ Testamur title: Master of Science

Abbreviation: MSc

Course fee: see note (local)
 \$7,500 per semester (international)

The Master of Science degree enables graduates to extend and deepen their knowledge of a specialised area in computing by undertaking research under the supervision of a member of the academic staff. For specific areas of interest in research work in the Faculty of Information Technology, refer to page 83.

# Attendance pattern

This degree is available on both a full-time and a part-time basis. The normal duration of enrolment for this degree is two years for full-time attendance or three years for part-time attendance. The maximum time to complete the course is three years for full-time students and four-and-a-half years for part-time students.

The Faculty of Information Technology has a strong preference for research work that proceeds at a full-time pace. This preference should not be seen as a deterrent to those students who wish to remain in employment. Students who are working in a full-time job are encouraged to select a topic for their research which is closely aligned with their professional work. Once such a topic has been selected, the Faculty usually requires that the student's employer provide a statement to the effect that at least half of the student's working week will be devoted to work which is directly relevant to the research. The student is then expected to contribute some of his or her own time to the project which brings the total number of hours devoted to research within that expected of full-time attendance.

Note: Research degrees are offered on a sponsored, scholarship, faculty part-sponsored, or full-fee paying basis. Students should contact the Faculty or the University Graduate School for further details. There are, however, student service fees to be paid (see Fees and costs, page 9). The Faculty of Information Technology offers fee waivers to all students and these are applicable to both local and international students.

# **Application**

Application forms for all postgraduate courses may be obtained from the UTS Student Info & Admin Centre. Applicants should hold a First Class or Second Class (Division 1) Honours degree with a major computing component, or have previously undertaken other postgraduate studies in computing. Prospective applicants are expected to have developed interests in a specific area of research, and should have one or more outline proposals for research work in that area. Before submitting a formal application for admission to this degree course, applicants should first seek the approval of the Faculty for their proposed research work. To gain this approval, applicants should initially:

- send a summary proposal of approximately 1,000 words to the Associate Dean (Research, Policy and Planning), Faculty of Information Technology, containing references to seminal works in the area of proposed research. If the proposal is appropriate for the Faculty, the Associate Dean (Research, Policy and Planning) will then direct the applicant to a suitable member of staff for further detailed discussion, or
- approach a suitable member of the Faculty's academic staff directly and discuss the proposed research area.

Every Master of Science student at UTS is required to have at least two supervisors for their research work, one of whom should be an academic staff member of the University. Of the two supervisors, one will be the principal supervisor and the other the cosupervisor.

Prospective applicants should seek agreement from a member of the Faculty's academic staff to act as a supervisor for the proposed research if the application is successful. Once this agreement has been obtained, applicants may then apply formally for admission by completing an Application for Admission – Graduate Courses form and the Faculty's Details of Proposed Study form. These forms must be signed by the applicant, the proposed supervisor and the Head of Department.

# **Progress reports**

All thesis students are required to submit, in consultation with their supervisors, a progress report at the end of each semester. The University Graduate School contacts each student and their supervisor(s) to initiate this process.

# Submission of thesis

Each candidate for the degree of Master of Science should give the Registrar two months' written notice of their intention to submit their written thesis. Appropriate forms and the information brochure *Presentation and Submission of Theses for Higher Degrees* are available from the University Graduate School.

# ENGLISH LANGUAGE STUDY SKILLS ASSISTANCE CENTRE

The English Languages Study Skills Assistance (ELSSA) Centre enhances teaching and learning at UTS through a focus on academic language development, which involves reading, writing, listening, speaking, critical thinking and cultural knowledge.

The Centre does this by:

- collaborating with faculties to integrate the development of students' academic language in their areas of study
- teaching custom-designed programs to meet the specific requirements and changing needs of undergraduate and postgraduate UTS students and staff
- fostering interest in, and knowledge of, language and learning through research, intellectual contributions and staff development, and
- valuing quality, diversity, internationalisation and flexibility as the Centre serves the wider academic and professional communities.

In addition to a wide range of free academic language development services available to UTS students who complete undergraduate and postgraduate degrees in English, the ELSSA Centre also offers the following award courses, programs and elective subjects.

# UNDERGRADUATE PROGRAMS FOR INTERNATIONAL STUDENTS

# Advanced Diploma in Australian Language and Culture

- ◆ UTS course code: HA30
- Testamur title: Advanced Diploma in Australian Language and Culture
- ◆ Abbreviation: none
- Course fee: \$6,000 (local)
   \$9,000 (international)

The Advanced Diploma in Australian Language and Culture (ADALC) has been designed jointly by the ELSSA Centre and the Institute for International Studies for international students – either as a study-abroad year in their current degree (fee-paying), or as part of a university-to-university exchange agreement, or as a stand-alone program.

It can be taken at either undergraduate or postgraduate level and allows students to enrol in subjects about Australian society and culture while tailoring a program to their own interests and level of English language competence.

Students will audit classes in their area of study as an integral part of the ADALC.

The Advanced Diploma is aimed at two types of students:

- exchange and Study Abroad students who wish to complete the ADALC and return to their country, or
- international students who do not meet the UTS language entry requirements and who need to develop their academic literacy skills to enable them to enrol in undergraduate courses at UTS.

International students graduating from the the ADALC meet the UTS language entry requirements and, provided they meet academic entry requirements into faculties, are eligible to study at UTS after completing the ADALC.

# **Admission requirements**

Students must have reached an English language competence level of 5.0 (IELTS) or TOEFL 510 (computer 180). Students with an IELTS of 6.0 or TOEFL of 550 are exempt from Semester 1.

#### Course duration

The Advanced Diploma is normally a twosemester program.

#### Course structure

This program is a 48-credit-point course, comprising six subjects.

# Course program

#### Semester 1

59304	English for Academic Purposes 1	8ср
59306	Researching Australia 1 -	
	Ethnography	8cp
59308	Australian Society and Culture 1	8ср
Semes	ster 2	
59305	English for Academic Purposes 2	8ср
59307	Researching Australia - Researching	
	Students	8ср
59309	Australian Society and Culture 2	8cp

#### Other information

Contact the English Language Study Skills Assistance (ELSSA) Centre for more information on this program.

# Australian English Language and Culture Program

- UTS course code: n/a
- Testamur title: n/a Students receive a Statement of Completion
- Abbreviation: n/a
- Course fee: \$9,000 (international)¹

The Australian English Language and Culture Program is aimed at study-abroad or exchange students who are not able to enrol in the Advanced Diploma in Australian Language and Culture.

This program enables international students from language backgrounds other than English to develop their English language skills through the study of aspects of contemporary Australian society and culture. Through both class activities and excursions, it introduces students to a range of intercultural issues and provides them with opportunities to interact with native speakers in order to develop the cultural understanding, skills, knowledge and confidence required to use English and participate actively in a variety of settings.

The program focuses particularly on oral skills and includes some participation in mainstream University classes. Students complete a major project using ethnographic research techniques.

# Admission requirements

Students whose language level is below IELTS 5.0 or TOEFL 510 (computer 180).

## Course duration

This program is completed over two semesters.

#### Course structure

This program consists of two full-time subjects, comprising 24 credit points each.

# Course program

#### Semester 1

59314	Australian English Language and	
	Culture 1	24cp

¹ This program is not offered to local students.

#### Semester 2

59315 Australian English Language and Culture 2 24cp

#### Other information

Contact the English Language Study Skills Assistance (ELSSA) Centre for more information on this program.

# **ELECTIVE SUBJECTS**

The ELSSA Centre offers five elective subjects aimed specifically at students from language backgrounds other than English. Some of these subjects may be completed during semester or, in intensive mode during the February or July vacation periods.

#### Semester 1 or 2

Selliester I of 2			
59316	Essay Writing	4cp	
59317	Report Writing	4cp	
59318	Seminar Presentation	4cp	
59319	Communication for Employment	4cp	
59320	English for Business	6ср	

# POSTGRADUATE PROGRAM

# Graduate Certificate in English for Academic Purposes

- UTS course code: HA80
- Testamur title: Graduate Certificate in English for Academic Purposes
- ◆ Abbreviation: none
- Course fee: \$3,500 (local)
   \$5,100 (international)

The Graduate Certificate in English for Academic Purposes (GCEAP) is aimed at international postgraduate research students who do not meet the UTS English language requirement but who meet all other academic requirements to commence studies at UTS at postgraduate research level.

Participation in the program is only possible for students who have already enrolled in a postgraduate research degree program elsewhere at UTS. Enrolment in the GCEAP is an integral part of the enrolment in a postgraduate research degree and emphasises the developmental approach of an integrated program.

# **Admission requirements**

Applicants must:

- be international students
- be eligible to enrol in a postgraduate research degree at UTS, and
- have an IELTS score of 5.5 to 6.0 (minimum of 5.5 in writing) or TOEFL score of 530–550 (computer 197–213) or equivalent.

Other postgraduate students who meet the UTS language entry requirements and who feel they need to develop their language skills would also be eligible to attend the program.

#### Course duration

The first two subjects of the GCEAP are offered in the intensive pre-sessional mode (eight weeks before semester) and the final subject is offered concurrent with the first semester of students' enrolment in their research degree.

#### Course structure

In addition to being enrolled in a postgraduate research degree at UTS, students must complete the three compulsory subjects of the GCEAP (totalling 24 credit points).

#### Course program

59310	Postgraduate Study in Australia	8ср
59311	Academic English for Postgraduate	
	Study	8ср
59312	Postgraduate Academic Writing in	
	Context	8ср

#### Other information

Contact the English Language Study Skills Assistance (ELSSA) Centre for more information on this program.

# SUBJECT DESCRIPTIONS

#### 59304

#### English for Academic Purposes 1

8cp; prerequisite(s): IELTS score 5.0 (students with an IELTS of 6.0 and above are exempt from this subject)

(only for undergraduate international, exchange or Study Abroad students)

This is the first of two subjects specifically for international students. The aim of these subjects is to ensure that students' language and study skills have developed sufficiently to enable them to successfully participate in classes alongside other UTS students.

The subjects focus on developing the language and learning skills required for tertiary study in Australia. They integrate the four macroskills – reading, writing, listening and speaking – into a thematic approach which looks at a variety of contemporary issues in Australian culture and society. These issues are linked to subjects which may be studied in subsequent years at UTS. Students take a critical/analytical approach to understanding and producing written and spoken texts appropriate for an Australian tertiary context.

#### 59305

#### English for Academic Purposes 2

8cp; prerequisite(s): IELTS score 6.0 or 59304 English for Academic Purposes 1 (only for undergraduate international, exchange or Study Abroad students)

This is the second of two subjects specifically for international students. The aim of these subjects is to ensure that students' language and study skills have developed sufficiently to enable them to successfully participate in classes alongside other UTS students.

The subjects focus on developing the language and learning skills required for tertiary study in Australia. They integrate the four macroskills – reading, writing, listening and speaking – into a thematic approach which looks at a variety of contemporary issues in Australian culture and society. These issues are linked to subjects which may be studied in subsequent years at UTS. Students take a critical/analytical approach to understanding and producing written and spoken texts appropriate for an Australian tertiary context.

#### Researching Australia 1 - Ethnography

8cp; prerequisite(s): IELTS score 5.0 (only for undergraduate international, exchange or Study Abroad students)

This is the first of two subjects specifically for international students in the Advanced Diploma in Australian Language and Culture. The aim of these subjects is to introduce students to a range of intercultural issues and to investigate the cultural norms of Australian society through the application of specific research methods. At this level, students use ethnographic techniques to investigate aspects of contemporary Australian experience.

#### 59307

#### Researching Australia 2 – Researching for Study

8cp; prerequisite(s): IELTS score 6.0 or 59306 Researching Australia 1 – Ethnography (only for undergraduate international, exchange or Study Abroad students)

This is the second of two subjects specifically for international students in the Advanced Diploma in Australian Language and Culture. The aim of these subjects is to introduce students to a range of intercultural issues and to investigate the cultural norms of Australian society through the application of specific research methods. At this level, students use questionnaire and interview techniques to investigate aspects of contemporary student life and present their research both orally and in written report form.

#### 59308

#### Australian Society and Culture 1

8cp; prerequisite(s): IELTS score 5.0 (only for undergraduate international, exchange or Study Abroad students)

This is the first of two subjects specifically for international students in the Advanced Diploma in Australian Language and Culture. In these subjects students are introduced to several aspects of Australian society and culture: the indigenous experience; aspects of rural and urban Australia; the history of migration; and the development of multiculturalism. Students explore these aspects through film, documentaries, literature, music, art, sport events, etc. Visits to cultural institutions as well as presentations and guest lectures from experts are key features of these subjects.

#### 59309

#### Australian Society and Culture 2

8cp; prerequisite(s): IELTS score 6.0 or 59308 Australian Society and Culture 1 (only for undergraduate international, exchange or Study Abroad students)

This is the second of two subjects specifically for international students in the Advanced Diploma in Australian Language and Culture. In these subjects students are introduced to several aspects of Australian society and culture: the indigenous experience; aspects of rural and urban Australia; the history of migration; and the development of multiculturalism. Students explore these aspects through film, documentaries, literature, music, art, sport events, etc. Visits to cultural institutions as well as presentations and guest lectures from experts are key features of these subjects.

#### 59310

#### Postgraduate Study in Australia

8cp; prerequisite(s): IELTS score 5.5 (minimum of 5.5 in writing); corequisite(s): enrolled in a postgraduate research degree at UTS (only for postgraduate international students)

This is the first of three compulsory subjects in the Graduate Certificate in English for Academic Purposes (GCEAP) specifically for international students enrolled in a post-graduate research degree at UTS. The aim of this intensive subject is to provide students with a foundation in academic literacy and oracy skills required to start postgraduate studies at UTS.

This subject focuses on developing the language and learning skills required for tertiary study in an Australian university. It integrates the four macro-skills – reading, writing, listening and speaking – into a thematic approach which looks at a variety of contemporary issues in Australian culture and society. The subject also provides students with an understanding of studying at an Australian university and living in Australia.

#### Academic English for Postgraduate Study

8cp; prerequisite(s): 59310 Postgraduate Study in Australia or equivalent; corequisite(s): enrolled in a postgraduate research degree at UTS (only for postgraduate international students)

This is the second of three compulsory subjects in the Graduate Certificate in English for Academic Purposes (GCEAP) specifically for international students enrolled in a postgraduate research degree at UTS. The aim of this intensive subject is to provide students with academic literacy and oracy skills required to be effective postgraduate students.

This subject focuses on developing the academic written and spoken language skills required for postgraduate study in the students' disciplines. These academic skills are developed in the context of students' areas of study and in conjunction with staff from faculties across UTS. Students take a critical/ analytical approach to understanding and producing written and spoken texts appropriate for the Australian context. The subject focuses in particular on critical reading skills, paraphrasing and summarising, selecting, evaluating and using a variety of sources of information, developing written arguments, presenting seminars, etc. In this subject, texts are selected and assessment prepared jointly by academic literacy experts and postgraduate coordinators and supervisors in students' faculties.

#### 59312

#### Postgraduate Academic Writing in Context

8cp; prerequisite(s): 59311 Academic English for Postgraduate Study or equivalent; corequisite(s): enrolled in a postgraduate research degree at UTS (only for postgraduate international students)

This is the final of three compulsory subjects in the Graduate Certificate in English for Academic Purposes (GCEAP) specifically aimed at international students enrolled in a postgraduate research degree at UTS. The aim of this subject is to provide students with ongoing integrated academic literacy and oracy support during the first semester of their postgraduate studies at UTS.

This subject focuses on consolidating postgraduate international students' academic literacy and oracy skills while they complete the first semester of postgraduate studies at UTS. The subject focuses on advanced skills in reading, text drafting and editing, the development of critical writing skills and the preparation of postgraduate assignments or research documents (articles, conference papers, etc.).

#### 59314

# Australian English Language and Culture 1

24cp; 20hpw

This subject enables international students from language backgrounds other than English to develop their English language skills through the study of aspects of contemporary Australian society and culture. Through both class activities and excursions, it introduces students to a range of intercultural issues and provides them with opportunities to interact with native speakers in order to develop the cultural understanding, skills, knowledge and confidence required to use English and participate actively in a variety of settings. The subject focuses particularly on oral skills and includes some participation in mainstream University classes. Students complete a major project using ethnographic research techniques.

#### 59315

## Australian English Language and Culture 2

24cp; 20hpw; prerequisite(s): 59314 Australian English Language and Culture 1 or equivalent

This subject continues the language skill development of 59314 Australian English Language and Culture 1 and extends student participation in mainstream University classes. Students complete a number of field projects on topics relating to their own interests or study areas. Lecturers coordinate student progression through these projects through individual and group meetings, presentations by guest speakers, excursions and readings.

#### 59316

#### Essay Writing

4cp; over 10 weeks

This elective is one of five subjects offered by the ELSSA Centre and it is aimed at non-English-speaking-background students who need to develop their essay-writing skills. It focuses on the critical analysis of topics relevant to different academic areas of study, the development of essay outlines and the final preparation of essays.

#### **Report Writing**

4cp; over 10 weeks

This elective is one of five subjects offered by the ELSSA Centre and it is aimed at non-English-speaking-background students who need to develop their report-writing skills. It focuses on the analysis of topics relevant to different academic areas of study, the development of report plans and the final preparation of reports.

#### 59318

#### Seminar Presentation

4cp; over 10 weeks

This elective is one of five subjects offered by the ELSSA Centre and it is aimed at non-English-speaking-background students who need to develop their seminar presentation skills. It focuses on the analysis of topics relevant to different academic areas of study and the development of seminar presentation skills.

#### 59319

#### Communication for Employment

4cp; over 10 weeks

This elective is one of five subjects offered by the ELSSA Centre and it is aimed at non-English-speaking-background students who need to develop their employment-seeking skills. It focuses on the analysis of recruitment advertisements relevant to different academic areas of study, and the development of writing and speaking skills required for gaining employment. It also covers work-related communication skills.

#### 59320

#### **English for Business**

6cp; over 10 weeks

This elective is one of five subjects offered by the ELSSA Centre and it is aimed at non-English-speaking-background business students who need to develop their written and spoken communication skills. It focuses on the critical analysis of topics relevant to business study, the development of essay outlines, report outlines, seminar structures and the final preparation of an essay, a report and a seminar.

# SUBJECT DESCRIPTIONS

#### 31136

#### Preparation and Review of IT Experience

6cp; corequisite(s): 31137 IT Experience 1; available only to students of the Diploma of IT Professional Practice

This subject involves formal planning of and regular reporting on your work experience undertaken in 31137 IT Experience 1. There is particular emphasis on the skills you hope to gain, both technical and social.

#### 31137

#### IT Experience 1

Ocp; prerequisite(s): 31414 Information Systems; 31415 Principles of Software Development A; 31416 Computer Systems Architecture; 31417 Computing Practice; 31424 Systems Modelling; 31429 Procedural Programming; 31434 Database Design; 31436 Systems Software and Networks, or equivalent; corequisite: 31136 Preparation and Review of IT Experience Refer to the Faculty Office for prerequisite information under the new BSc (InfTech); available only to students of the Diploma of IT Professional

To pass this subject and 31139 Industrial Experience 2 students must complete a total of nine months' full-time employment in suitable IT related work.

#### 31138

Practice

#### Review of IT Experience

6cp; prerequisite(s): 31136 Preparation and Review of IT Experience; 31137 IT Experience 1; corequisite 31139 IT Experience 2; available only to students of the Diploma in IT Professional Practice Refer to the Faculty Office for prerequisite information under the new BSc (InfTech)

This subject involves continued regular reporting and concluding structured reflection on your work experience undertaken for 31139 IT Experience 1. Assessment also includes a report and an oral presentation given to fellow students on completion of your work experience.

#### 31139

#### IT Experience 2

Ocp; prerequisite(s): 31136 Preparation and Review of IT Experience; 31137 IT Experience 1; corequisite 31138 Review of IT Experience; available only to students of the Diploma of IT Professional Practice This subject is a continuation of 31137 IT Experience 1.

#### 31140

#### Introduction to Computer Graphics

6cp; prerequisite(s): 31425 Principles of Software Development B; 31429 Procedural Programming

This subject provides a thorough introduction to the computer representation, manipulation and display of pictorial information. Topics covered include: passive and interactive graphics; hardware devices and programming; mathematical tools for two- and three-dimensional graphics; two- and three-dimensional graphics and algorithms; graphics standards; human-computer interaction and graphical design; and application areas of computer graphics.

#### 31414

#### Information Systems

6ci

This subject deals with information systems in their organisational context.

The effects of information systems on society, organisations and individuals are discussed. Examples from typical organisations are used to illustrate information systems concepts. Techniques for analysing and describing user requirements are introduced.

Throughout the subject there is an emphasis on human activities, the importance of the user in the analysis phase and the usability of systems. Another theme is communication skills, i.e. the ability of the analyst and designer of an information system to interview, write reports and manuals, design efficient and effective interfaces and communicate their design ideas to others.

#### Principles of Software Development A

6cp; corequisite(s): 31417 Computing Practice

The principles and practice of object-oriented software construction are introduced using the programming language Eiffel. Topics include the object-oriented concepts of classes, objects, clients and suppliers, inheritance, genericity, dynamic binding and polymorphism.

#### 31416

#### **Computer Systems Architecture**

6cr

This subject introduces students to the internal organisation and operation of computer systems. The functions, characteristics and interrelationships of the hardware components of computer systems are studied. Other topics include binary arithmetic, data representation, digital logic, and data transmission. This subject provides a sound basis for understanding how computer hardware supports higher-level software constructions.

#### 31417

# **Computing Practice**

6ср

This subject deals with the principles of responsible computer use; computer skills; touch typing; DOS commands; Microsoft Windows; introductory word processing; spreadsheets and graphics; the UNIX environment, FTP, telnet, electronic mail; file conversions; backups; introductory library research skills; and introduction to report writing.

#### 31424

#### Systems Modelling

6cp

This subject introduces information system concepts, including their static and dynamic components. It describes how these concepts can be used to model information systems to correctly capture their structure and needs. It outlines how the ability to capture information about the system in ways understood by its eventual users will improve the final quality of the system.

The subject introduces analysis using various approaches found in contemporary system development, including object-oriented methods, data flow diagrams and Entity-Relationship modelling, and describes the relationships between these techniques and their application.

#### 31425

#### Principles of Software Development B

6cp; prerequisite(s): 31415 Principles of Software Development A or another programming subject

The specification and implementation of stacks, queues, lists and trees are discussed as abstract data types. Formal mathematical specification of software and program correctness are discussed. Program-testing methods are emphasised throughout the subject, as are aspects of software quality such as useability.

#### 31428

#### Quantitative Modelling

6cc

This subjects covers reasoning with data, descriptive statistics, probability theory, distributions, estimation, hypothesis testing, spreadsheet exercises, report writing, principles of modelling, queuing models, utility models, adaptive methods, and case studies of some basic models.

#### 31429

#### Procedural Programming

6cp; prerequisite(s): 31415 Principles of Software Development A

This subject deals with top-down structured program design techniques and their application to the development of commercial programming applications. Emphasis is on the quality and useability of the resultant systems. Debugging and testing skills are developed. The language used is C.

#### 31434

#### **Database Design**

6cp; prerequisite(s): 31424 Systems Modelling

This subject introduces the students to basic database design and implementation concepts. Database design techniques, including relational design and E-R analysis, are presented. Database programming using SQL is covered in lectures and supported by practical exercises. Object database and distributed database concepts are introduced.

#### Systems Software and Networks

8cp; prerequisite(s): 31429 Procedural Programming; 31416 Computer Systems Architecture

This subject builds on 31416 Computer Systems Architecture to provide an understanding of the operating system, and communications hardware and software that provide support for user applications. Particular attention is paid to the role of systems software in distributed systems.

#### 31443

# Distributed Databases and Client/Server Computing

6cp; prerequisite(s): 31434 Database Design

This subject introduces the students to basic distributed databases and client/server concepts. The classical approach to distributed databases is described in detail, and supported with both theoretical and practical exercises. Modern client/server and database server techniques are introduced.

# 31444

#### Systems Design and Development

10cp; prerequisite(s): 31434 Database Design; 31436 Systems Software and Networks

This is a project-based subject that guides students through an information systems development process. The requirements for the information system are specified in a series of Use Cases. The development involves designing the user interface and data system and then designing and implementing the system. The emphasis throughout the development is on meeting the user's requirements, implementing a distributed solution and integrating the new systems with the existing information systems infrastructure. Attention to the quality of the system outcomes is maintained throughout the development process. Students work in managed teams of 10. There are no formal lectures and no exams in this subject; staff/student contact takes place at regular structured project meetings and discussion meetings. Students are expected to have at least four hours of contact with their team each week and, given that this is a 10-credit-point subject, to do significant work outside of this contact time.

#### 31454

#### Project Management and the Professional

6cp; prerequisite(s): 31444 Systems Design and Development

This subject covers the management of the development and implementation of information technology solutions, with particular emphasis on information systems project management, managing software quality assurance and the professional ethics of software developers.

#### 31455

#### Software Development Case Study

12cp; prerequisite(s): 31444 Systems Design and Development

In the first semester, lectures run in two strands: one devoted to projects, and the other to automata theory and new theory and skills. Students will work on their projects in laboratories.

The major project incorporates the following stages: modular decomposition of the system; development of interfaces to the user (GUIs), between modules, to class libraries and to other applications (code-wrapping); coping with change of specifications; detailed coding; and verification, documentation and testing. This is a full-year subject.

## 31464

# Information Technology Planning and Design

6cp; prerequisite(s): 31428 Quantitative Modelling; 31436 Systems Software and Networks; 31444 Systems Design and Development; 31454 Project Management and the Professional

This subject is a capstone subject for the course and incorporates knowledge gained in previous subjects, including industrial experience. Students are required to work in groups to produce a large report based on case study material. The objective is to produce a strategic solution to the problem presented in the case study involving both planning and design. The subject emulates the commercial environment in that students work in project groups and hold weekly project review meetings. A presentation to management occurs at the end of the subject.

#### Object-oriented Programming

6cp

This subject introduces object-oriented (OO) programming in Java. It covers the topics of data flow, procedures, classes, and data structures. It also shows how to build a graphical user interface (GUI) to a Java system.

#### 31466

#### **Principles of Distributed Computing**

6ср

This subject introduces distributed applications as one of the foundations of a modern computing environment. It focuses on the principles surrounding the use and development of applications in a networked environment and introduces some of the basic hardware components of networked computing devices. Students have the opportunity to develop skills in using distributed applications and developing simple websites.

#### 31467

#### Networking 1

6cp

This subject introduces computer networks as an arrangement of computers, networking devices and processes driven by complex distributed software. The focus in this subject is Layer 1 and Layer 2 of the OSI model to prepare the student for later work in network design, implementation and management. Students are also exposed in sufficient detail to issues associated with Layer 3 the internetwork layer viz IP addressing and routing. Layer 4 to 7 of the OSI model and their mapping to TCP IP utilities and application software are discussed.

## 31468

#### Information, Classification and Control

6cr

This subject introduces the concepts of information and information systems and introduces two major types. For information retrieval systems, the subject deals with classification and search techniques and the evaluation of web based information resources. For accounting information systems, the subject covers basic accounting principles, classification of accounts, accounting with spreadsheet packages and budgeting and control.

#### 31469

#### Object-oriented Design

6cp; prerequisite(s): 31465 Object-oriented Programming

This subject shows how to design, build, test, document, and maintain large or complex object-oriented (OO) systems. It presents a set of design frameworks, patterns, and rules, along with a set of explicit evaluation criteria that can be used to judge the quality of a reusable OO system. It also presents the problems that arise in large system development, and discusses technical tools to solve these problems.

#### 31470

#### **Distributed Computing Architecture**

6cp; prerequisite(s): 31466 Principles of Distributed Computing; 31465 Object-oriented Programming

This subject focuses on the design and development of distributed applications that exchange information. It looks at information architectures for distributed applications, and typical application requirements for information exchange. It examines the Extensible Mark-up Language, XML, and related standards as a language for information exchange and provides the opportunity for students to develop Java applications that parse and exchange information. Finally it offers more distributed system theory, including coverage of operating systems and software for distributed systems.

#### 31471

#### Networking 2

6cp; prerequisite(s): 31467 Networking 1

This subject extends the work done in 31467 Networking 1. Students learn to apply the concepts and develop higher level skills in the design and operation of larger scale networks using higher level networking devices. Students will be well placed to pursue a specialisation in network design and management if they so choose. The subject also develops skills necessary for information technology planning and design of systems that are network focussed. The emphasis in this subject is intranets that use routers. The role and operation of routers in a range of computer networks are examined in detail. Router-based networks are designed and routers configured. Deeper treatment of IP addressing and routing protocols is undertaken. The impact of routing protocol choices on network behaviour is emphasised. Skills in network design, router configuration and network troubleshooting are further developed.

#### Introduction to Collaborative Systems

6cp

This subject introduces students to key human aspects of IS development: stakeholder consideration, team-work and useability. Students use collaborative software tools to produce a group report and reflect on this activity as a design process.

#### 31473

# Data Structures and Procedural Programming

6cp; prerequisite(s): 31469 Object-oriented Design

In first year, students learned more abstract aspects of programming. This subject takes a more machine-oriented viewpoint: it discusses the implementation and design of data structures, the efficiency of data structures, the design and implementation of algorithms and the complexity of algorithms. Students learn to program in C, gain an understanding of aspects involved in the execution of programs in various languages (such as memory management and garbage collection) and develop skills in using tools for program development (such as source level debuggers, version control tools and make files/project files).

#### 31474

#### **Database Fundamentals**

6ср

This subject introduces students to basic database modelling, design, and implementation concepts and techniques. Entity-Relationship (E-R) modelling methodology is described in detail and the students learn how to model information requirements and develop conceptual models from user specifications. Relational database theory is presented including the description of the relational model and theory of Normal Forms. Transformations techniques between the E-R and relational models are described. Database programming using SQL is introduced in lectures and supported by practical exercises using a relational DBMS. Advanced database topics including database APIs, triggers, and stored procedures are briefly introduced.

#### 31475

#### Requirements Engineering

6cp; prerequisite(s): 31472 Introduction to Collaborative Systems

This subject introduces students to the foundations of Requirements Engineering which is among the most important contributors for developing good quality software that meets the real needs of users. Students become familiar with the front-end activities of software development and learn about methods, techniques and tools that assist in the important collection of activities that makes up the requirements engineering process.

#### 31476

## Systems Development Project

12cp; prerequisite(s): 31474 Database Fundamentals; 31475 Requirements Engineering

This subject involves using a case study approach to explore the design and development of a complex set of information systems services. The application domain is a commercial setting, with a special focus on integration of new and legacy systems. In addition, transaction processing and distribution issues are addressed.

#### 31478

# Project Management and Quality Assurance

6cp; prerequisite(s): 31476 Systems Development Project

This subject covers the management of the development and implementation of information technology solutions, with particular emphasis on information systems project management and software quality assurance. It considers the roles of project management and software quality, particularly from the viewpoint of the practitioner as a member of a project team. There is a focus on both product and process issues together with the factors that impact quality outcomes associated with all phases of development.

#### 31479

# Information Technology Professional and Society

6cp; prerequisite(s): 31476 Systems Development Project

This subject covers the body of ideas and commonly held principles that apply to professional standards and ethical behaviour in the information technology industry. The intent is to expose students to standards of professional behaviour and legal responsibility through case studies and current mediarelated articles featuring potential ethical and/or legal situations/dilemmas. It considers the history of information technology, the impact of information technology on society, the IT profession's Codes of Ethics and Codes of Conduct and the legal requirements pertaining to the information technology industry.

#### 31480

## Strategic Information Technology Planning Project

6cp; prerequisite(s): 31478 Project Management and Quality Assurance

This subject deals with the issues involved in strategic level analysis and design in a corporate-wide information systems environment. Through a major case study, it reinforces material previously studied while giving groups of students scope to use their own judgment in applying their knowledge. It stresses the development and assessment of alternative approaches to a system strategy. Senior management and communication skills are also developed.

#### 31481

#### Honours Project A

6ср

Students undertake a literature review describing the structure of their chosen area of research.

#### 31482

#### **Honours Project B**

12cp; prerequisite(s): 31481 Honours Project A; 32931 Information Technology Research Methods

Honours Project B is the second part of the Honours program where students undertake a research proposal as developed in the Honours Project A. This involves a substantial investigation under the supervision of a member of academic staff and is examined on the quality of the written report.

#### 31484

#### Information Systems Foundations

6cn

Subject description available from the Faculty of Information Technology.

#### 31485

#### Systems Development

6cp

Subject description available from the Faculty of Information Technology.

#### 31486

#### **Data Communications**

6cp

Subject description available from the Faculty of Information Technology.

#### 31487

#### **Database Management Systems**

6с

Subject description available from the Faculty of Information Technology.

#### 31488

#### Programming Fundamentals

6cp

Subject description available from the Faculty of Information Technology.

#### 31489

#### **Industry Study 1**

6cp; prerequisite(s): one semester of BInfTech

Students undertake an academic study of a particular issue in IT, using their experience in their first industry semester as a case study. Study topics are chosen in consultation with the mentor from: business benefits of IT, business processes; IS design methods; IS useability; and particular technologies used during industry experience.

#### 31490

#### **Industry Study 2**

6cp; prerequisite(s): four semesters of BInfTech

Students undertake an academic study of a particular issue in IT, using their experience in their second industry semester as a case study. Study topics are chosen in consultation with the mentor from: business benefits of IT; business processes; IS design methods; IS useability; and particular technologies used during industry experience. A different topic is chosen from that undertaken by the student in 31489 Industry Study 1.

#### Industry Project 1

9cp; prerequisite(s): one semester of BInfTech

This subject is based on the student's first industry placement with a BInfTech sponsor. Subject components are: preparation for industry experience with sponsor seminars, project work with the sponsor and a reflective report on personal and organisational aspects of the industry experience.

#### 31492

#### **Industry Project 2**

9cp; prerequisite(s): four semesters of BlnfTech

This subject is based on the student's second industry placement with a BInfTech sponsor. Subject components are: preparation for industry experience with sponsor seminars, project work with the sponsor and a reflective report on personal and organisational aspects of the industry experience.

#### 31507

#### Australian IT Industry

6cp

This is an overview of information technology in Australia. Key market areas and current trends are studied, as well as the global nature of information technology.

#### 31508

#### Programming Fundamentals

6ср

Students learn programming concepts, and learn to write medium-sized programs in an object-oriented language.

#### 31509

#### Computer Fundamentals

6ср

This subject introduces students to the internal organisation and operation of computer systems. The functions, characteristics and interrelationships of the hardware components of computer systems are studied. Other topics include binary arithmetic, data representation, digital logic, and data transmission. This subject provides a sound basis for understanding how computer hardware supports higher-level software constructions.

#### 31510

#### Operating Systems

6cp; prerequisite(s): 31429 Procedural Programming This subject introduces students to modern operating systems, and shows how the systems support applications programs.

#### 31511

#### Systems Design

6cp; prerequisite(s): 31424 Systems Modelling

This subject focuses on the user and business aspects of systems design. User interface issues cover dialogue, screen, report and forms design, as well as designing and writing user documentation. Integration with business environment includes business procedures, security, control and implementation. A variety of design and implementation strategies are introduced, such as prototyping and CASE tools.

#### 31512

#### Networking 1

6cp; prerequisite(s): 31509 Computer Fundamentals

This subject introduces students to data communications, emphasising the Physical, Data Link and Network Layers of the OSI Model. It emphasises the problems of providing a physical local area network, introduces a range of communications equipment, and addresses the problems of message delivery through a network. A range of upper layer topics is also introduced. The course material is supported by a range of hands-on practical sessions.

#### 31513

#### Networking 2

6cp; prerequisite(s): 31512 Networking 1 or equivalent

This subject examines in detail the role and operation of routers in a range of computer networks, but with a primary emphasis on local area networks. A range of routing protocols is discussed. The course material is supported by extensive hands-on practical work. Network management is also introduced.

#### 31514

#### Computing Theory

6ср

This subject introduces students to some of the theory underlying computing science. It includes such topics as formal methods and computational complexity.

#### Introduction to Australian IT Industry

6cp

This subject introduces students to the language, history and culture of Australia. It also introduces students to academic study in Australia.

#### 31516

#### Networking Fundamentals

6ср

Computer networks have taken a major role in many modern organisations and business enterprises, and indeed, in everyday life. This subject introduces students to the fundamentals of data communications and computer networks, and imparts an understanding of the principles and practices of computer networking. The core set of protocols employed on the global Internet, TCP/IP, is studied, and students learn the mechanisms of the support which networks provide to net-based application programs.

Taken by itself, this subject provides a 'breadth first' introduction to networking. As part of a networking sub-major, this subject provides a firm foundation for other subjects that deal with distributed applications and networked organisations.

#### 31601

#### Programming for Performance

6cp; prerequisite(s): 31425 Principles of Software Development B or equivalent; 31429 Procedural Programming

FISh is a new programming language developed at UTS which combines a high level of abstraction (no pointers!) with efficient code. Latest experiments shows quicksort in FISh is twice as fast as in C!

This subject appeals to (computer) scientists and (software) engineers who want: broader or deeper knowledge of algorithms; exposure to the latest theoretical developments; and the opportunity to connect to an exciting research project.

Assessment is by assignment and project. The assignment tests understanding of basic concepts. The project implements in FISh an algorithm or software library chosen by the student in consultation with the coordinator.

#### 31603

#### 3D Computer Animation

6cp; prerequisite(s): 31140 Introduction to Computer

This subject covers the major areas of 3D computer animation. It provides students with the opportunity to learn a major commercial 3D modelling, animation, and rendering package. Students also gain experience with Silicon Graphics workstations and the Irix environment. The subject also covers the principles and practice of pre-production planning, production management, and postproduction of an animation project. The subject is project-based, and each student develops an animation of their choice.

#### Computer Graphics Rendering Techniques

6cp; prerequisite(s): 31140 Introduction to Computer Graphics

This subject covers the major rendering techniques used for image synthesis in computer graphics: scan-line algorithms, ray tracing, and radiosity. Topics covered include shading and illumination models, the scan conversion of graphics primitives, recursive ray tracing, textures, anti-aliasing, shadows, constructive solid geometry, acceleration techniques for ray tracing, and radiosity for diffuse and specular environments.

#### 31606

#### Virtual Communities

6cp

This subject describes ways in which computer networking components can be integrated into workspaces that foster virtual communities. It first concentrates on the formation of virtual communities that focus on common interests of their members. It considers factors that influence the growth and success of such communities both within large enterprises and within widely distributed community groups. The subject then describes ways to use information technology to combine a variety of components into workspaces that support such communities.

# Industrial Training (F/T)

Ocp; prerequisite(s): 31414 Information Systems; 31415 Principles of Software Development A; 31416 Computer Systems Architecture: 31417 Computing Practice: 31424 Systems Modelling: 31429 Procedural Programming; 31434 Database Design; 31436 Systems Software and Networks or equivalent For subject details see 31697 Industrial

Training (F/T).

#### 31697

# Industrial Training (F/T)

Ocp; prerequisite(s): 31696 Industrial Training (F/T); (first semester)

The first and second semesters of Industrial Training are a compulsory requirement for the course. All full-time students must enrol in these subjects and obtain a minimum of nine months of full-time employment. Students must normally have completed the equivalent of at least four full-time semesters before obtaining employment.

#### 31698

# Industrial Training (P/T)

Ocp: prerequisite(s): 31414 Information Systems; 31415 Principles of Software Development A; 31416 Computer Systems Architecture; 31417 Computing Practice: 31424 Systems Modelling: 31429 Procedural Programming: 31434 Database Design: 31436 Systems Software and Networks or equivalent For subject details see 31699 Industrial Training (P/T).

# 31699

# Industrial Training (P/T)¹

Ocp; prerequisite(s): 31698 Industrial Training (P/T) (first year)

The first and second years of Industrial Training are a compulsory requirement for the course, normally taken for a total of four semesters in Stages 5 and 6. All part-time students must enrol in these subjects and obtain a minimum of 18 months of full-time employment.

#### 31718

# Contemporary Information Technology 1

6cp; available only to BInfTech students

This is a self-paced learning subject that provides basic skills students will use in a variety of other subjects and in industry including word processing, spreadsheets, graphics, email, etc. The self-paced learning is complemented by lectures from partner organisations about the industry and the first industry semester.

#### 31722

#### Commercial Programming

5cp; prerequisite(s): one semester of BInfTech

The subject deals with commercial structured design techniques and commercial programming in either a batch or online environment. Students are taught the design technique and language of the particular industry organisation using approved assignment work.

#### 31735

#### Information Systems and Organisation Development

6cp; prerequisite(s): 31414 Information Systems or equivalent

This subject introduces theories dealing with the behaviour of people in organisations, the structure of organisations, and the relation between the two. Systems thinking is used to bring these views together as a basis for organisation development in an environment changing through the influence of information systems.

#### 31736

#### **Business Processes and IT Strategy**

6cp; prerequisite(s): at least 36 credit points

This subject aims to provide students with the skills and knowledge required to creatively plan for the strategic use of information systems in organisations. Students are provided with an awareness of the problems in developing corporate strategies in general, and information technology strategies in particular. Their skills in the selection and use of information technology planning methods are developed. They learn how to use methods designed to analyse and restructure organisational processes through the innovative use of information systems technology. Current proposals for organisational restructuring are introduced and evaluated through comparison with previous theories of restructuring.

For pre-2000 students only.

For pre-2000 students only.

For pre-2000 students only.

For pre-2000 students only.

#### Machine Learning

6cp; prerequisite(s): 31428 Quantitative Modelling

This subject is concerned primarily with machine learning: automatic construction of computable models from data. Symbolic and non-symbolic methods are studied. Topics include: statistical learning, clustering and correlations; neural networks methods; genetic algorithms; genetic programming; Shannon information; rule induction; and first-order learning.

#### 31744

#### Case-based Reasoning

6cp

This subject builds on fundamental work in knowledge technology and introduces students to the concepts of case-based reasoning; neural architecture; human memory; semantic nets; memory indexing; case-based reasoning; case finding; case evaluation; case adaptation; building a case base; planning – adaptation, correctness; case-based planning; expectations; and explanation-based learning.

#### 31745

#### Knowledge-based Systems

6cp; prerequisite(s): 31743 Machine Learning or 31744 Case-based Reasoning

This subject addresses the important issues relating to the design of flexible Knowledge-Based Systems (KBS). These include understanding analytical techniques for KBS, bases for deep-level representation of the world, knowledge acquisition techniques, design principles and case studies of how these principles are implemented in the current KBS.

#### 31746

#### **Artificial Intelligence Applications**

6cp; prerequisite(s): 31743 Machine Learning or 31744 Case-based Reasoning

This subject builds on fundamental work in knowledge technology and introduces students to issues in building a substantial artificial intelligence system. The subject looks at the use of artificial intelligence languages; knowledge acquisition; application selection; knowledge engineering, computer-assisted knowledge engineering; designing for maintainability; truth maintenance systems; and review of artificial intelligence applications.

#### 31748

#### Programming on the Internet

6cp; prerequisite(s): 31436 Systems Software and Networks or equivalent

The Internet and the World Wide Web are revolutionising software development with multimedia-intensive, platform-independent code for conventional Internet-, Intranet- and Extranet-based applications. This subject carefully explains how to program multitiered, client/server, database-intensive, webbased applications. Particularly, it involves programming in Java, website administration, HTML authoring, CGI programming, website design tools, XML and e-commerce.

#### 31749

#### Internet Commerce

6ср

This subject aims to give students exposure to Internet commerce and develops an understanding of the stakeholders and their capabilities and limitations in the strategic convergence of technology and business. Topics include business models for Internet commerce, security, and legal and ethical issues. Students develop skills in identifying the advantages and disadvantages of the various electronic payment options, and complete computer-based activities on Internet commerce.

#### 31750

#### Intelligent Agents in Java

6cp; prerequisite(s): 31748 Programming on the Internet or an equivalent knowledge of programming in Java

This subject introduces students to the concepts of agent computing, and applies those concepts in the context of intelligent Internet-based systems. Students gain sufficient knowledge to be able to take more specialised subjects in Internet-based computing and artificial intelligence. By the end of this subject, students should be able to design a simple intelligent agent and to implement a simple intelligent agent in Java.

#### 31756

#### Project Management

5cp; prerequisite(s): four semesters of the BInfTech

This subject provides students with the practical knowledge and skills that are necessary to effectively manage project teams

and software development projects. The major topics are: planning a software project; software time and cost estimation; controlling a software project; development aids and alternatives; and leadership and people management. This subject provides an essential understanding of project management issues and identifies the knowledge required of a project manager in the IT industry.

#### 31769

#### Contemporary Information Technology 2

4cp; prerequisite(s): five semesters of the BlnfTech This subject covers topical issues in the development, implementation and use of information systems, and the professionalism, ethics and social responsibility in the IT

# industry. 31770

#### Industry Project 1

5cp; prerequisite(s): one semester of the BlnfTech

This subject provides students with an understanding of the function of the Information Systems Department (IS) in an organisation and also of at least one user business function serviced by IS. Understanding is developed through a number of strategies such as interviewing, observation and work experience. Students are taught human communication skills in conjunction with the project work, with a special emphasis on oral and written communication. Training is also provided in a variety of development tools used in the information systems development process in order to build up a defined skills profile in conjunction with the subject 31790 Industry Project 2.

#### 31771

#### **Business Requirements Analysis**

5cp; prerequisite(s): one semester of the BInfTech

Topics in this subject include: applications of systems analysis (data flow diagrams, relational modelling, etc.) in a business setting; the roles of the business analyst and the systems analyst; systems research and requirements analysis (interviewing, document analysis, etc.) for data processing, management information systems, etc., top-down enterprise-wide perspective; evolution of the business environment; business, product and other life cycles; and industry case studies.

#### 31777

#### **Human-Computer Interaction**

6cp; prerequisite(s): 31444 Systems Design and Development or equivalent

This subject focuses on the design, evaluation and implementation of interactive computing systems for human use within actual situations. Students gain an understanding of human-computer interaction (HCI) principles, including the main concepts, tools and techniques available to build user-centred systems. This subject considers the effects on use of the different metaphors for human activity that designers use in their systems and how user-centred design and evaluation methods can improve the useability of computer systems.

#### 31778

#### Resources Management for IT **Professionals**

6ср

This subject aims to instil the knowledge and skills required for effective management of hardware and software resources within an information systems organisation. The major topics include: resource acquisition; developing software; workplace environments; hardware and software security; operations management; and contracting and outsourcing.

#### 31779

#### Applications of Information Technology 1

5cp; prerequisite(s): one semester of the BInfTech

Formal and practical exposure to, and understanding of, a variety of specific applications of information technology, such as management information systems, databases, decision support systems, process control, graphics, etc., are covered in the subject. Subject material complements that of 31789 Applications of Information Technology 2 to ensure a common level of experience for all students. This is an industry subject for Bachelor of Information Technology.

#### 31781

#### Business Systems Design

5cp; prerequisite(s): four semesters of the BInfTech

Topics in this subject include: understanding systems design in a business setting; performance and quality criteria; alternative implementation strategies; approaches to

systems construction and estimation (including package evaluation and prototyping); implementation issues; productivity issues; methods engineering; information technology in business; industry and product differences; and case studies. This is an industry subject for BInfTech.

#### 31789

## Applications of Information Technology 2

5cp; prerequisite(s): four semesters of the BInfTech

Formal and practical exposure to, and understanding of, a variety of specific applications of information technology, such as management information systems, databases, decision support systems, process control, graphics, etc., are covered in this subject. Subject material complements that of 31779 Applications of Information Technology 1 to ensure a common level of experience for all students.

#### 31790

#### Industry Project 2

5cp; prerequisite(s): four semesters of the BInfTech

Students in this subject gain practical 'handson' experience of the role of members of an information systems development team in relation to business organisational goals and objectives; and are incorporated as members of a project team in a sponsoring company. Training is also provided in a variety of development tools in order to build up a defined skills profile in conjunction with the subject 31770 Industry Project 1. Students also undertake a group investigative project focusing on an issue of current concern to the IT industry.

#### 31860

#### Object-oriented Programming and C++

6cp; prerequisite(s): 31424 Systems Modelling; 31429 Procedural Programming or equivalent

This subject introduces ANSI C++ as a language to implement object-oriented programming. The subject covers objects, classes, inheritance, polymorphism and memory management in C++. Students build upon their object-oriented experience in Eiffel, and their syntax knowledge of C.

#### 31876

#### Operating Systems Facilities

6cp; prerequisite(s): 31436 Systems Software and Networks or equivalent

The development of applications to make use of the facilities offered by an operating system offering support for a graphical user interface, such as Microsoft Windows or Macintosh, is covered in this subject. Included is the methodology involved in building applications that are driven by user actions such as the mouse as well as input from a keyboard. Issues related to inter-application communication are also explored.

#### 31902

#### **Auditing the Computer**

6cp; prerequisite(s): 22615 Accounting Information Systems

Topics covered include: audit concepts and techniques in the EDP audit field; control measures that must be embedded in computer accounting and information systems; different systems of control: administrative, operational and security; audit techniques and the DP audit function; and risk analysis and quality assurance.

The subject's emphasis is oriented to control measures possible and desirable in various computer systems, e.g. billing, creditors, payroll, etc., and non-monetary information systems.

#### 31904

#### Systems Programming

6cp; prerequisite(s): 31429 Procedural Programming This subject allows students to develop their Perl and UNIX knowledge and skills appropriate for professional practice in a UNIX environment. The subject also exposes students to other high level 'scripting' utilities. This is of general benefit and is not covered elsewhere in the course.

#### 31916

#### Cognitive Modelling

6cc

This subject examines recent developments in cognitive science. It brings together research from: psychology, neurophysiology, philosophy and AI. It investigates mechanisms and models underlying intelligent and adaptive behaviour with a view to their use in system design. Topics include philosophy of the mind, learning paradigms, memory systems,

attention, neurophysiology, neural assemblies, feature discovery and identification, physical symbol hypothesis and Human Information Processing, and AI technologies.

#### 31917

#### Commercial Programming in Cobol

6cp; prerequisite(s): 31429 Procedural Programming

The subject deals with top-down structured program design techniques, and their application to the development of commercial programming applications. The emphasis is on the quality and useability of the resultant systems. Debugging and testing skills are developed. The language used is COBOL.

#### 31919

#### Distributed Software Programming

6cp; prerequisite(s): 31436 Systems Software and Networks or equivalent and 31904 Systems Programming or equivalent

This subject builds on material learned in 31436 Systems Software and Networks and 31904 Systems Programming. Students apply the knowledge and skills obtained in those subjects to explore the design and construction of Distributed Software Applications. Skills in the use of network communication libraries, thread and RPC libraries are developed. At the present time, the C language and the UNIX environment are used.

#### 31921

#### Objectbases

6cp; prerequisite(s): 31434 Database Design

This subject introduces the students to OODB concepts. It reviews the basic OO principles and discuss their application to databases. The theoretical discussion of the topic is supported with practical exercises using a commercially available OODBMS.

#### 31922

#### Object-oriented Methodologies

6cp; prerequisite(s): 31424 Systems Modelling

This subject introduces the object-oriented methods of analysing the problem domain and creating an implementation-independent formal representation of the system requirements. Elements of the object-oriented analysis (OOA) process, OOA representation and OOA complexity management are introduced and compared with the related concepts of structured analysis methodologies. The differences between the two approaches,

and the advantages and disadvantages of each of them, are discussed. While UML is predominantly used, various object-oriented modelling methodologies are compared and their applicability to different application domains is assessed. The transition from implementation independent results of the OOA to the object-oriented design (OOD) for different implementation platforms is also covered.

#### 31925

#### Smalltalk

6cp; prerequisite(s): 31415 Principles of Software Development A: 31424 Systems Modelling

This subject provides an introduction to the Smalltalk programming language and environment. Topics include the syntax and semantics of Smalltalk, the Smalltalk programming tools, the Smalltalk class library, Smalltalk programming style and design, and adding graphical interfaces to Smalltalk programs.

#### 31927

#### Applications Development with Visual Basic

6cp; prerequisite(s): 31414 Information Systems; and one of 31415 Principles of Software Development A or 31429 Procedural Programming; corequisite(s): 31424 Systems Modelling or 31434 Database Design

This subject introduces event-driven programming. Students use Visual Basic to build an interactive system. The system is designed using dialogue-oriented prototyping. Students also learn how to connect to various application packages using OLE.

#### 31928

#### Applications Development with Delphi

6cp; prerequisite(s): 31414 Information Systems; and one of 31415 Principles of Software Development A or 31429 Procedural Programming; corequisite(s): 31424 Systems Modelling or 31434 Database Design

This subject aims to give students exposure to the development of user-orientated applications using visual programming languages. Students are required to apply software tools and packages which have different strengths and weaknesses to create an application. The technical environment for this subject is Borland Delphi and a database package.

### Software Quality Assurance

6cp; prerequisite(s): 31424 Systems Modelling or

The subject aims to provide students with the practical knowledge and skills that are necessary to effectively measure and control the quality of software products. Major topics include: quality assurance principles; quality metrics; verification, validation and testing; implementing quality assurance, and software engineering methods and tools.

### 31950

# **Networked Enterprise Design**

This subject describes evolution of systems towards distributed business environments with more emphasis on processes that require people to work together over distance. It describes how people work together and the changes to work practices resulting from the distribution of such work. The subject covers collaboration technologies such as email, video-conferencing, co-authoring and workflows needed to support distributed business processes. The subject emphasises the design process, describing how to choose and implement collaborative technologies based on systems such as the World Wide Web or Lotus Notes to provide business benefits.

#### 32009

#### Advanced Routing Principles

6cp; prerequisite(s): 32521 WANs and VLANs, or completion of CCNA preparation in another Cisco Networking Academy or the holding of the CCNA Industry certification and relevant industrial experience.

Availability: Honours and postgraduate degree students

This subject complements and extends the theory and practice learned in 32524 LANs and Routing and 32521 WANs and VLANs. It extends skills and knowledge in scalable interior and exterior routing protocols (OSPF, EIGRP, BGP), route optimistation and redistribution, NAT and network security. The subject is run in the UTS Cisco Systems Network Academy. Cisco routers are programmed as part of practical work. The subject is part of a sequence that allows students to prepare for the CCNP industry certification.

### 32010

#### Wide Area Network Implementation

6cp; prerequisite(s): 32521 WANs and VLANs, or completion of CCNA preparation in another Cisco Networking Academy or the holding of the CCNA Industry certification and relevant industrial experience

Availability: Honours and postgraduate degree students

This subject complements and extends the theory and practice learned in 32524 LANs and Routing and 32521 WANs and VLANs. It extends skills and knowledge in WAN issues for part-time and full-time connectivity. Frame relay, ISDN and POTS technologies are deployed. Emerging WAN technologies are introduced. The course is run in the UTS Cisco Systems Network Academy. Cisco routers are programmed as part of practical work. The subject is part of a sequence that allows students to prepare for the CCNP industry certification.

### 32011

### Multilayer Switched Networks

6cp; prerequisite(s): 32521 WANs and VLANs Availability: Honours and postgraduate degree students

This subject complements and extends the theory and practice learned by completing 32524 LANs and Routing and 32521 WANs and VLANs. This subject extends skills and knowledge in the design and implementation of switched campus networks using VLANs for performance, reliability and security. Inter VLAN routing methods are explored. Multicast protocols, including issues that arise with switched networks are introduced. Practical work is done on Cisco Systems layer 2 and layer 3 switches. The course is run in the UTS Cisco Systems Network Academy. The subject is part of a sequence which allows students to prepare for the CCNP industry certification.

### 32106

#### Object-oriented Process

6cp; prerequisite(s): 32536 Object-oriented Modelling or equivalent knowledge/experience Availability: Honours and postgraduate degree students

This subject covers the basic principles of object-oriented software development. It focuses on classes as modules and classes as types; OO analysis and design; software design as object modelling through abstract data type definition; design by contract and

subcontracting; the different forms of inheritance; OO programming; software development environments; support for OO methods and techniques; OO models of the software development process; project management for OO; and models of application domains as the basis for OO frameworks for fast application development.

### 32108

### Applications of Artificial Intelligence

Availability: Honours and postgraduate degree students

This subject covers some important areas of artificial intelligence and their applications. These areas include, broadly: knowledge representation; problem solving; planning; knowledge-based systems; dealing with uncertainty; explanation facilities; and machine learning and applications of AI. The subject quickly introduces students to the basic AI techniques and then deals with individual topics in depth.

### 32113

## Advanced Database

Availability: Honours and postgraduate degree

Subject description available from the Faculty of Information Technology.

### 32114

### Advanced Data Communications

Availability: Honours and postgraduate degree students

Subject description available from the Faculty of Information Technology.

### 32115

### Requirements Engineering Research and Practice

6cp; prerequisite(s): A good understanding of Software Development Process Availability: Honours and postgraduate degree students

Requirements engineering is a very important part of systems and software development and has recently received substantial attention from many researchers and practitioners. The subject introduces students to the foundations of requirements engineering research and practice. It also familiarises them with the range of techniques, methods and tools for

various activities making up the requirements engineering process.

### 32120

#### Evolution of the Internet

6cp; corequisite(s): 32121 Economics and Marketing in the New Economy

Availability: Honours and postgraduate degree students

This is an overview of Internet technologies: architecture; protocols; systems integration; and security. It is also an overview of the World Wide Web (WWW): http/html, browsers and servers; scripting, caching; applets; servlets; and application integration. It covers the evolution of websites, from transactional sites to content management and personalisation, and future e-business technologies: broadband; wireless; streaming; and content distribution. The subject incorporates practical skill development in website development and scripting.

# 32122

# Business to Consumer: Fundamental Principles and Technologies

6cp; prerequisite(s): 32120 Evolution of the Internet Availability: Honours and postgraduate degree students

This subject introduces students to the fundamental B2C concepts and models. Online retailing and CRM case studies are covered. The subject includes a hands-on practical component using a B2C development platform.

#### 32123

# **Business to Business: Fundamental** Principles and Technologies

6cp; prerequisite(s): 32120 Evolution of the Internet Availability: Honours and postgraduate degree students

This subject introduces students to the fundamental e-Business concepts and models. Supply Chain Management (SCM) and Procurement case-studies are presented. The subject includes a hands-on component using an e-Business development platform.

### 32124

# e-Business Project Management

Availability: Honours and postgraduate degree students

Subject description available from the Faculty of Information Technology.

# Enterprise Application Integration: Principles and Technologies

6ср

Availability: Honours and postgraduate degree students

Subject description available from the Faculty of Information Technology.

# 32126

# Creative Design and Interactive Marketing

6CI

Availability: Honours and postgraduate degree students

Subject description available from the Faculty of Information Technology.

### 32127

# Business to Consumer: Advanced Principles

6cp

Availability: Honours and postgraduate degree students

Subject description available from the Faculty of Information Technology.

### 32128

#### **Business to Business: Advanced Principles**

6ср

Availability: Honours and postgraduate degree students

Subject description available from the Faculty of Information Technology.

#### 32129

# Enterprise Application Integration: Advanced Principles and Technologies

6cp

Availability: Honours and postgraduate degree students

Subject description available from the Faculty of Information Technology.

# 32204

# Advanced Data Management

6cp

Availability: Honours and postgraduate degree students

This subject covers a range of advanced database topics, including relational, object-oriented database systems and distributed databases. The subject area is treated mainly from a technological viewpoint, but also includes a discussion of management issues.

#### 32208

# Information Processing Strategy

6cp

Availability: Honours and postgraduate degree students

This subject is designed to provide students with an awareness of the problems in developing corporate strategies for information processing, and to develop skills in the selection and use of appropriate techniques.

### 32307

### Operating Systems

6cp

Availability: Honours and postgraduate degree students

This subject discusses topics in modern operating systems: concurrency in multiprocessor operating systems, programming support environments, user friendly system interfaces, object-based systems, fault-tolerant systems, and secure systems.

### 32501

### **Computer Graphics**

6ct

Availability: Honours and postgraduate degree students

This subject demonstrates why computer graphics are important and, through the lectures and practical work, gives students a working knowledge of elementary two- and three-dimensional graphics programming algorithms.

#### 32509

# Human-Computer Interaction in Information Systems

6ср

Availability: Honours and postgraduate degree students

This subject introduces the fundamentals of Human–Computer Interaction including the nature and scope of human use of computers in everyday contexts. Topics covered include the cognitive frameworks used in system design, user-centred design methods and useability design and evaluation principles and methods. Students are encouraged to critically engage with the technology they encounter in their work so as to develop a understanding of how the design of computer systems relates to their use, and their useability, in practice.

# Principles of Object-oriented Programming

6cp; prerequisite(s): 32106 Object-oriented Process Availability: Honours and postgraduate degree

Topics in this subject include: review of objectoriented design principles and practice; and objects, classes, run-time instantiation, inheritance, information hiding, polymorphism and libraries, and their implementation in ANSI C++.

## 32511

# Principles of Object-oriented Programming in Smalltalk

6cp; prerequisite(s): 32106 Object-oriented Process Availability: Honours and postgraduate degree students

The Smalltalk language and programming environment are covered in the first half of the subject. The second half uses the Smalltalk class library to build an interactive system with a graphical user interface (GUI).

# 32513

# Advanced Machine Learning

Availability: Honours and postgraduate degree students

This subject is concerned primarily with machine learning: automatic construction of computable models from data. Symbolic and non-symbolic methods are studied. Topics include: statistical learning, clustering and correlations; neural networks methods; genetic algorithms; genetic programming; Shannon information; rule induction; and first-order learning.

### 32516

### Internet Programming

Availability: Honours and postgraduate degree students

Internet Programming covers an introduction to programming in Java, and website construction using programmatic techniques including Javascript, style sheets, CGI and Java applets. Students implement a small web-based application combining elements of programming techniques covered during the subject.

### 32517

#### Commerce on the Internet

Availability: Honours and postgraduate degree students

This subject aims to give students exposure to Internet commerce and develops an understanding of the stakeholders and their capabilities and limitations in the strategic convergence of technology and business. Topics include business models for Internet commerce, security, and legal and ethical issues. Students develop skills in identifying the advantages and disadvantages of the various electronic payment options. Students complete computer-based activities on Internet commerce.

### 32520

### **UNIX Systems Administration**

Availability: Honours and postgraduate degree students

Students learn about basic UNIX systems administration, including: registering users; file systems; networking; and performance management. Students should be competent users of UNIX. There is a laboratory component to the subject.

# 32521

#### WANs and VLANs¹

6cp; prerequisite(s): 32524 LANs and Routing Availability: Honours and postgraduate degree students

This subject extends the work covered in 32524 LANs and Routing with VLANs and WAN protocols. WAN and LAN design is introduced. Use of the UTS Cisco Academy resources are used for practical work and threaded case study. After completing this subject students may sit for the industry certification CCNA (Cisco Certified Network Associate).

#### 32523

### Operating Systems for Internetworking

Availability: Honours and postgraduate degree students

This subject looks at the principles of operating systems and the fundamental differences between systems currently used in Internetworking, such as UNIX and NT.

This subject was formerly called 32521 Internetworking.

### LANs and Routing

6ср

Availability: Honours and postgraduate degree students

This subject provides students with knowledge of LAN hardware and physical layer standards, and basic computer networking concepts and principles, and introduces local area network (LAN) design and the use of routers and routing in autonomous system intranets. It also explains how these access WANS. Use of the Cisco Academies online resources and practical work in wiring and configuring LANs, including Cisco routers, is an integral part of this subject.

### 32525

### Distributed Software Programming

6cp; prerequisite(s): 32516 Internet Programming Availability: Honours and postgraduate degree students

This subject builds on material learnt in the prerequisite subject. It furthers an understanding of the underlying technology used in implementing distributed systems software. Students design and develop distributed applications.

#### 32527

### Internetwork Design

6cp; prerequisite(s): 32524 LANs and Routing Availability: Honours and postgraduate degree students

This subject combines the principles studied in 32524 LANs and Routing, and 32521 WANs and VLANs and extends them. These are then applied to the design of internetworks.

# 32528

#### Network Management

6cp; prerequisite(s): 32524 LANs and Routing Availability: Honours and postgraduate degree students

This subject explains the role of the network manager and the network management system. It discusses the components of network management, i.e. fault management, performance management, configuration management, security management and accounting management. The integration of the components into an enterprise management system is addressed. The lecture material is integrated with laboratory sessions throughout, which allow students to experience aspects of network management.

# 32530

# **Building Intelligent Agents**

6cp

Availability: Honours and postgraduate degree students

This subject introduces students to the concepts of agent computing, and applies those concepts in the context of intelligent Internet-based systems. Students gain sufficient knowledge to be able to take more specialised subjects in Internet-based computing and artificial intelligence. By the end of this subject, students should be able to design a simple intelligent agent and to implement a simple intelligent agent in Java.

### 32531

# Global Information Systems

6cp

Availability: Honours and postgraduate degree

This subject covers new requirements placed on information systems arising out of the globalisation of business operations. It covers new ways of doing business in global environments, including formation of alliances and joint ventures, and ways that information systems must be developed to support them. The interaction of technical issues and social issues, including culture, is studied.

# 32532

#### Conducting Business Electronically

6c1

Availability: Honours and postgraduate degree students

This subject describes ways to assess an organisation's computer networking needs and identify those business operations that will benefit most from using Web or groupware technologies in business-to-business and Intranet applications. It then covers ways for designing the applications by identifying ways of doing business using such technologies and by specifying workspaces that allow users to share information and knowledge while working towards organisational goals. Different kinds of workspaces are identified, including those for information exchange, developing personal relationships and knowledge sharing. Ways of using Web technologies to implement workspaces are then described.

# **Networking Communities**

Availability: Honours and postgraduate degree students

This subject describes ways in which computer networking components can be integrated into workspaces that foster virtual communities. It first concentrates on the formation of virtual communities that focus on the common interests of their members. It considers factors that influence the growth and success of such communities both within large enterprises and within widely distributed community groups. The subject then describes ways to use information technology to combine a variety of components into workspaces that support such communities.

#### 32534

# Knowledge Management

Availability: Honours and postgraduate degree students

This subject addresses the processes of generation, dissemination, retention, measurement, application and distribution of corporate knowledge for re-use. It also addresses techniques in data warehousing and data mining and identifies their relevance to knowledge management. While the course has a strong technological focus, a range of issues in business, marketing, and organisational behaviour are also covered.

# 32535

#### **Databases in Distributed Environments**

Availability: Honours and postgraduate degree

This subject covers a range of topics in distributed databases. The main topics include: discussion of distributed database design; distributed transactions and queries; and data replication strategies. Modern database server techniques are introduced.

### 32536

# Object-oriented Modelling

Availability: Honours and postgraduate degree students

This subject deals with the use of objectoriented techniques in the full lifecycle of developing software, addressing both technical and management issues, focusing on pre-coding issues. These techniques are also explored practically in a project-based systems development assignment.

Lectures primarily discuss the third generation OO methodology, OPEN. There is a software engineering focus throughout the subject, including discussion of project management, reuse and metrics appropriate for an object-oriented systems development environment.

### 32537

### **Enterprise Wide Software Systems**

Availability: Honours and postgraduate degree students

This subject looks at software from an enterprise point of view. It investigates issues concerning the incorporation of legacy code versus a new system; maintenance; costs; and the effect of a business re-engineering process on software systems or the opportunities provided by the necessity to introduce new systems.

#### 32541

### Project Management

Availability: Honours and postgraduate degree students

This subject covers the management of the development and implementation of information technology solutions, with particular emphasis on information systems, project management, and contemporary issues in the delivery of information technology solutions to the business. It considers the role of project management in business and identifies the managerial control and reporting aspects necessary from inception to implementation of a software development project.

# **Advanced Cognitive Modelling**

6cp

Availability: Honours and postgraduate degree students

This subject is designed to provide an overview of recent developments in the exciting field of cognitive science. Bringing together work from several disciplines, including psychology, neurophysiology, philosophy and AI, this subject investigates the biological mechanisms underlying human intelligence in order to provide a theoretical model for emulating such behaviour artificially. Topics include: philosophy of mind; memory systems; selective attention; learning; and emerging AI techniques such as neural networks.

#### 32543

### **Advanced 3D Computer Animation**

6cp; prerequisite(s): 32501 Computer Graphics Availability: Honours and postgraduate degree students

This subject covers the major areas of 3D computer animation. It provides students with the opportunity to learn a major commercial 3D modelling, animation and rendering package. Students also gain experience with Silicon Graphics workstations and the Irix environment. The subject also covers the principles and practice of pre-production planning, production management and post-production of an animation project. The subject is project-based, and each student develops an animation of their choice.

### 32544

# Advanced Image Synthesis Techniques

6cp; prerequisite(s): 32501 Computer Graphics Availability: Honours and postgraduate degree students

This subject covers the three major rendering techniques used for image synthesis in computer graphics: scan-line algorithms, ray tracing and radiosity. Topics covered include: shading and illumination models, the scan conversion of graphics primitives, recursive ray tracing, textures, anti-aliasing, shadows, constructive solid geometry, acceleration techniques for ray tracing, and radiosity for diffuse and specular environments.

# 32545

### Multi-agent Systems

6cp

Availability: Honours and postgraduate degree students

This subject aims to introduce students to current research and state-of-the-art applications of multi-agent technology, and to teach them how to recognise a problem that should be addressed by multi-agent technology.

# 32546

## **Business Process Engineering**

6CI

Availability: Honours and postgraduate degree students

This subject aims to introduce current approaches to modelling process; designing, implementing and maintaining business process systems; and current approaches to managing process systems and to managing the application of business process engineering technology.

### 32547

# **UNIX Systems Programming**

6cp; prerequisite(s): ability to program in C Availability: Honours and postgraduate degree students

This subject allows students to develop their Perl and UNIX knowledge and skills appropriate for professional practice in a UNIX environment. The subject also exposes students to other high level 'scripting' utilities. This is of general benefit and is not covered elsewhere in the course.

### 32548

# **Network Security**

6cr

Availability: Honours and postgraduate degree students

This subject consolidates the student's understanding of network security by considering security principles, methodologies and technologies from a technical and management perspective. Issues such as Policy Based Networking, Directory Services, IPsec, as well as basic methodologies such as firewalls, proxies, encryption and authentication are dealt with.

# Advanced Internet Programming

6cp; prerequisite(s): 32516 Internet Programming or equivalent

Availability: Honours and postgraduate degree students

This subject complements and extends 32516 Internet Programming. It focuses on server side issues and the construction of medium to large scale web-based business to business (B2B) applications. In this subject application servers, integration of data from multiple sources, transactions, and delivery of resultant data as XML or WAP to multiple client mechanisms are dealt with. Topics include Java Server Pages (JSP), servlets, Java Data Base Connectivity (JDBC), Java Naming and Directory Interface (JNDI) and Enterprise Java Beans (EJB). Consideration is also given to dealing with legacy systems. RMI and CORBA are discussed.

### 32601

# Advanced Project Management

Availability: Honours and postgraduate degree students

This subject covers the management of developing and implementing information technology solutions, with particular emphasis on information systems, project management, and contemporary issues in the delivery of information technology solutions to the business. It considers the role of project management in business and identifies the managerial control and reporting aspects necessary from inception to implementation of a software development project.

### 32604

### Systems Integration

6cp; prerequisite(s): 32601 Advanced Project Management

Availability: Honours and postgraduate degree

Systems integrators are facing new challenges as a result of the increasing complexity of information systems and the fast evolving technologies used in their construction. This subject introduces students to various topics relating to systems integration. The subject covers both the technological and management issues in this area. The focus is on frameworks, architectures, and standards that facilitate component-based systems integration.

### 32606

### **Database**

6cp; prerequisite(s): 32607 Systems Analysis

Postgraduate

Availability: Honours and postgraduate degree

This subject introduces the basic database design and implementation concepts and presents database design techniques including relational design and E-R modelling. It discusses the implementation of relational database and describes database query techniques using the Structured Query Language (SQL). It also introduces object-oriented databases and discusses their applicability to various problem domains.

### 32607

### Systems Analysis

Availability: Honours and postgraduate degree students

This subject deals with information systems in their organisational context.

The effects of information systems on society, organisations and individuals are discussed. Examples from typical organisations are used to illustrate information systems concepts. Techniques for analysing and describing user requirements are introduced.

Throughout the subject there is an emphasis on human activities, the importance of the user in the analysis phase and the usability of systems. Another theme is communication skills, i.e. the ability of the analyst and designer of an information system to interview, write reports and manuals, design efficient and effective interfaces, and give presentations on the system.

#### 32702

### Contemporary Telecommunications

Availability: Honours and postgraduate degree students

This subject explores management perspectives on contemporary telecommunications, data communications and networks. Topics covered include: network architecture and standards; new communications technologies; Internetworking; domestic and international communications environments; applicationoriented services; network resource architectures; client/server systems; introduction to distributed processing; distributed databases; emerging technologies; and business and telecommunications planning.

### Information Technology Strategy

6cp

Availability: Honours and postgraduate degree students

This subject is designed to provide students with an awareness of the problems in developing corporate strategies for information processing, and to develop students' skills in the selection and use of appropriate techniques.

### 32704

## Strategic IT Contract Management

6cr

Availability: Honours and postgraduate degree students

This subject is designed to provide students with an understanding and practical knowledge of IT contracting and intellectual property laws relating to the IT industry, and of implementing contract design and negotiation strategies to achieve project objectives.

### 32902

# **Recent Advances in Information Systems**

6cp

Availability: Honours and postgraduate degree students

This subject present ssome key developments in the information systems discipline and related research areas. A number of selected IS researchers present an overview and open questions from a research area in which they are particularly interested. Students are encouraged to actively participate in the discussions of the topics presented.

### 32930

# Information Technology Management Research Methods

6cp; prerequisite(s): to be undertaken in final year of study

Availability: Honours and postgraduate degree students

This subject familiarises participants with a range of approaches used in management research, with an emphasis on approaches commonly used in practical settings. The advantages and limitations of different research approaches are examined, as well as their applicability in different IT contexts. Experience is provided in the design of research studies, in the analysis and interpretation of data, and in report presentation. Participants acquire skills which will be useful

in the conduct of research agendas in their own IT organisations and in the critical evaluation of others' research work.

# 32931

### Information Technology Research Methods

6cp; prerequisite(s): to be undertaken in final year of study

Availability: Honours and postgraduate degree students

This subject familiarises participants with a range of approaches used in information technology research, with an emphasis on approaches commonly used in practical settings. The advantages and limitations of different research approaches are examined, as well as their applicability in different information technology contexts. Experience is provided in the design of research studies, in the analysis and interpretation of data, and in report presentation. Participants acquire skills which will be useful in the conduct of research agendas in their own information technology organisations and in the critical evaluation of others' research work.

### 32932

### Project A1

6cp; prerequisite(s): 32390 Information Technology Management Research Methods or 32931 Information Technology Research Methods Availability: Honours and postgraduate degree students

Project A1 is the compulsory part of the final Masters project. Participants practise the methods and techniques introduced in the prerequisite research methods subject by undertaking a literature review and producing a research proposal. The research proposal may then optionally be undertaken as either Project B1 or Project B2.

#### 32933

#### Project B1

6cp; prerequisite(s): 32932 Project A1 Availability: Honours and postgraduate degree students

Project B1 is the second and optional part of the final Masters project. Participants undertake the research proposal developed in Project A – this involves a substantial investigation under the supervision of a member of academic member of staff, and is examined on the quality of both a written report and an oral presentation of the project work.

### **Project B2**

12cp; prerequisite(s): 32932 Project A1 Availability: Honours and postgraduate degree students

Project B2 is the second and optional part of the final Masters project. Participants undertake the research proposal developed in Project A - this involves a substantial investigation under the supervision of a member of academic member of staff, and is examined on the quality of both a written report and an oral presentation of the project work.

# SUBJECTS OFFERED BY OTHER FACULTIES

### 015110

### Aboriginal Cultures and Philosophies

8cp; 3hpw; weekly; block TA21 BEd, TA25 BEd BA

Undergraduate

Subject Coordinator: Jennifer Newman

This subject introduces participants to Aboriginal culture and social organisation as expressions of Aboriginal cosmology. Contemporary Aboriginal culture is presented as an evolving response to colonialism and as an assertion of cultural empowerment.

### 015395

### Aboriginal Social and Political History

8cp; 3hpw; weekly; block; prerequisite(s): 015110 Aboriginal Cultures and Philosophies 200 level

This subject is a campus-wide elective. It examines and analyses the impact of colonialism on indigenous people, with particular reference to the Aboriginal inhabitants of this region. The emergence of Aboriginal social and political movements is presented as the basis for repossession of traditional heritages in land and culture.

#### 21128

#### International Business

6ср

Undergraduate

Introduces students to the multidimensional nature of international business. Discusses the importance of globalisation and how it has changed the competitive environment of business. Introduces the role of multinational corporations and the complexity of international operations and management. Discusses current debates surrounding multilateral bodies. An Australian perspective is adopted throughout with students also developing an understanding of business in Asia.

### 21129

# Managing People and Organisations

6ср

Undergraduate

Introduces students to the fundamentals of management and organisational behaviour in the context of today's contemporary global business environment. Examines the major theories and models in areas of communication, group dynamics, individual behaviour and motivation, decision making, leadership, power and politics, and ethics and social responsibility. Places particular emphasis upon the application of theory to dilemmas and issues likely to confront managers today and in the future.

# 21306

# International Employment Relations

6cp; prerequisite(s): 21129 Managing People and Organisations Undergraduate

Introduces the theories, issues and practices involved in the management of employment relations within an increasingly competitive global market. As well as gaining a broad understanding of the context and nature of different systems of international employment relations, students are encouraged to explore the cross-national similarities and differences between Australia and its geographical neighbours and trading partners through the completion of case studies and the research of current literature on the topic. Exposes students to the human resources policies and practices of multinational corporations, and explores how they are utilised for competitive advantage.

### 21407

### Strategic Human Resource Management

6cp Undergraduate

Focuses on the strategic nature of human resource management (HRM) functions within various organisations and builds on general issues first raised in 21306 International Employment Relations. Develops an appreciation of critical HRM issues through an exploration of conceptual issues such as alternative ways of viewing the HRM field, how HRM should relate to changes in the organisational environment, and the relationships between organisation strategy and HRM functions. The underlying concept considered in this subject is how an organisation in a changing environment can best manage its human resources in such a way as to provide long-term benefits to the organisation.

### 21531

# Managing the International Organisation

6cp; prerequisite(s): 21591 International Management Undergraduate

Develops the focus of international management from a country and organisational approach to the implementation of management plans to operate an organisation in an international location.

### 21591

## International Management

6cp; prerequisite(s): 21129 Managing People and Organisations Undergraduate

Develops an understanding of the management practices required to successfully conduct business in other countries. Develops an appreciation of the distinctive features of selected countries and their particular management practices. Explores the ways in which management theories and behaviours may be adapted to suit their application in an international setting. Aims to enhance the skills of Australian managers operating internationally through the development of a more integrated view of international business and related management practices.

### 21788

# Effective People Management

6cr

Deals with a range of management skills, competencies and understandings necessary for effective people management. It seeks to develop enhanced competence in managing others and, recognising the importance of continuing personal learning and development in management, seeks to develop an increased sensitivity and understanding of self and others in organisational contexts.

#### 21789

### Contemporary Management Practices

6c1

This subject addresses a range of management practices appropriate to contemporary organisations. The unit provides students with an understanding of key aspects of current management practices, including: managerial relationships; intercultural management; leadership, status and power; negotation; interviewing; team building; managerial audits; and managerial ethics.

# Managing Organisational Change

This subject examines the role of the manager in planning and facilitating change in an IT environment, as well as the managerial challenges to be faced. It explores and suggests organisational change interventions. Change issues relevant to IT, such as technology assessment, will receive special emphasis.

# 21808

### Strategic Business Management

6cp; prerequisite(s): Graduate Certificate in Information Technology Management; 21806 Managing Organisational Change

The nature of strategic issues; arenas of strategy; the information technology industry; context and issues; concepts of strategy; environmental analysis; capability analysis; development of strategic alternatives; evaluation and choice of strategic alternatives; stability, change and transformation; the process of strategy implementation; and strategic control and monitoring.

### 22206

# Government Accounting

6cp; prerequisite(s): 22107 Accounting for Business Undergraduate

Gives a general coverage of the broad principles underlying public sector accounting, auditing and budgeting, with particular emphasis on ministerial departments and statutory bodies at federal, State and local government levels in Australia. Topics covered include the nature and environment of government accounting; implications of the fund theory of accounting for the public sector; federal, State and local government accounting processes and procedures; the role of accrual accounting in the public sector; formulating government budgets and the mechanisms of budgeting; management techniques in government business enterprises; accounting standards in the public sector; and developments and innovations in government accounting.

### 22207

# **Accounting Transactions and Business** Decisions

6cp; prerequisite(s): 22107 Accounting for Business Undergraduate

Continues the study of accounting as an information system and equips students with the appropriate accounting skills necessary to participate in a managerial capacity in the analysis of accounting information as it is used to facilitate and enhance decisionmaking, accountability and control. Ethical implications of decisions will be considered throughout the subject. Covers areas in both financial and management accounting, including the preparation and examination of accounting reports for partnerships and companies; the development of relevant cost concepts used in cost systems and the use of this information in performance evaluation. A computer software package is used in the review and presentation of accounting information.

### 22240

### International Accounting

6cp; prerequisite(s): 22107 Accounting for Business Undergraduate

In a rapidly changing world environment, the significance of international accounting has grown substantially, along with the expansion of international business activity. This subject enables students to explore the complexity and diversity of the international dimensions of accounting. Introduces a range of issues with special reference to the comparative development of national accounting systems, international accounting standards and transnational reporting issues. Covers a number of important areas and will not only inform students about the major issues, ideas and developments, but will also stimulate further inquiry and debate.

# 22320

#### Accounting for Business Combinations

6cp; prerequisite(s): 22207 Accounting Transactions and Business Decisions: recommended: to be taken at the same time as 22420 Accounting Standards and Regulations Undergraduate

Together with 22420 Accounting Standards and Regulations, this subject deals with the application and analysis of prescribed accounting treatments. Surveys the institutional and legal framework of modern

Australian accounting. Refers to international accounting standards and local and overseas standards and exposure drafts. Emphasises reporting - main topics include accounting for companies including debt and equity and its restructuring, accounting for acquisition of assets including business enterprises, valuation and goodwill, consolidated accounts of complex economic entities, accounting for associate companies and joint ventures, corporate restructuring and liquidation. Deals with preparation of accounts to meet corporate law and professional disclosure requirements. Looks at emerging issues and exposure drafts. Makes extensive use of spreadsheet programs. Students will be expected to produce business-quality reports using wordprocessing programs.

# 22321

# Cost Management Systems

6cp; prerequisite(s): 22207 Accounting Transactions and Business Decisions Undergraduate

Introduces students to the basic concepts underlying management accounting with a particular emphasis on current developments. Introduces appropriate cost management concepts, techniques and skills such as cost planning, cost behaviour, cost estimation, and cost accumulation and allocation systems (job, process and activity-based costing). Emphasises using accounting information to understand and make decisions about the management of the cost structure of an organisation.

# 22420

### Accounting Standards and Regulations

6cp; prerequisite(s): 22207 Accounting Transactions and Business Decisions; recommended: to be taken at the same time as 22320 Accounting for Business Combinations Undergraduate

Provides students with the ability to understand, critically evaluate and apply accounting standards and interpret financial reports. Considers the financial reporting environment and factors influencing the form of financial reporting, and addresses a range of accounting issues from within a contracting cost framework.

# 22566

### Accounting for Small Business 1

6ср

Undergraduate

Develops the knowledge and skills required by accountants in dealing with the problems which are unique to their professional work in the small business sector. Highlights and emphasises the practical matters associated with the initiation and growth of a small business.

Topics covered include an overview; the requirements of establishing a business – the steps and structures; economic business cycles' growth and future; acquiring and/or financing the business; accounting – records, control, costing and pricing; financial analysis and management; appraisals and acquisitions; the growing trend towards franchising as a form of small business; taxation and tax planning; insurance and risk; business disaster planning and recovery; and business and financial planning and budgeting.

### 22567

### Accounting for Small Business 2

6cp; prerequisite(s): 22207 Accounting Transactions and Business Decisions Undergraduate

Provides students with the skills and knowledge of the techniques used to analyse financial data for small and medium enterprises; how to apply these techniques with the aid of microcomputers and appropriate software; and how to develop integrated business plans to assist in the decision-making process in those enterprises.

Topics covered include an outline and a revision of basic spreadsheet terminology and function; data collection and analysis; cost-volume-profit relationships; budgeting and other planning models; cash-flow analysis and capital expenditure budgets; business valuation; and performance evaluation.

#### 22610

### Accounting for Insolvency

6ср

Undergraduate

Provides students with the accounting knowledge needed for businesses which are being liquidated; studies the characteristics and financial management mistakes leading to the failure of such businesses; and introduces the accounting requirements of deceased

estates. Topics covered include executorship; bankruptcy; the practice of termination accounting; and case studies, including financial management aspects of failed businesses.

# 22615

# Accounting Information Systems

This subject presents a range of fundamental accounting principles. This subject is intended to provide basic skills in financial accounting and to apply this knowledge of accounting to evaluating computerised accounting systems. An accounting system is an example of an information system.

### 22746

# Managerial Accounting

6cp

Postgraduate

Management accounting information systems are one of the main decision-support systems in organisations. This subject equips students with the skills and knowledge to design and use effective management accounting information for planning and controlling organisational activities. Topics include absorption costing, cost behaviour and cost-volumeprofit analysis, budgetary planning and control, differential costs, activity-based costing, and standard costing and variance analysis.

#### 22747

#### Accounting for Managerial Decisions

6ср

Postgraduate

Introduces students to the basics of financial and management accounting. Topics include the nature and purpose of accounting, accounting reports (balance sheets, profit and loss statements, cash flow statements) and analysing accounting; accounting reports and financial reports; the nature of management accounting and cost concepts; strategic planning and budgeting; cost accumulation systems (traditional costing systems and activity-based costing systems); and responsibility accounting (the management control structure, and analysing and reporting on performance).

# 24108

# **Marketing Foundations**

Undergraduate

Covers the basic principles of marketing. Develops an understanding of the overall process of marketing planning, implementation and control in the contemporary business environment. Also develops a basic understanding of marketing information systems; market research and marketing ethics; market segmentation; buyer behaviour; product development; and the development of product, distribution, promotion and pricing strategies for both goods and services domestically and internationally.

#### 24202

#### Consumer Behaviour

6cp; prerequisite(s): 24108 Marketing Foundations Undergraduate

Provides a basic theoretical grounding in the field of consumer behaviour, by drawing upon the contributing disciplines of psychology, social psychology, sociology, anthropology, communication and economics. Develops a better understanding and awareness of consumers as the central focus of marketing action and encourages students to appreciate the value of models as tools of conceptual analysis. Marketing strategy is considered within a broader social framework involving public policy formulation and embracing such issues as ethics, regulations and consumerism as necessary considerations in an increasingly competitive and constrained social, political and economic environment.

### 24205

### Business Marketing

6cp; prerequisite(s): 24108 Marketing Foundations Undergraduate

Focuses on the buying and selling of goods and services between firms, which constitutes 60-80 per cent of all marketing activity. Develops the special skills and concepts needed to function effectively in this setting, including personal selling, negotiation, preparation of bids, the sales-purchasing interface, relationship marketing and relationship management. Introduces the wider context in which business marketing sits - the distribution channel and network of connected firms in the wider domestic and international markets.

# Advertising and Promotions Management

6cp; prerequisite(s): 24108 Marketing Foundations; 24202 Consumer Behaviour

Undergraduate

Examines advertising, promotion and other marketing mix communications decisions from an applied viewpoint based on theory and current practice.

Provides students who might be potential brand managers, advertising managers or executives with systematic approaches to setting advertising and promotion objectives, establishing budgets, identifying relevant target audiences, formulating and testing strategies, and evaluating campaign results. Considers contemporary issues in advertising, together with reference to complementary aspects such as publicity, sponsorship and direct marketing.

### 24220

### International Marketing

6cp; prerequisite(s): 24108 Marketing Foundations Undergraduate

Introduces international marketing using the marketing concept, and considers how international marketing strategies are affected by environmental factors. Students are expected to develop international marketing strategies for Australian firms which reflect the way marketing concepts and marketing mix elements need to be modified when applied to overseas markets because of differences in the political, economic, legal and cultural environments.

#### 24309

#### Introductory Marketing Research

6cp; prerequisite(s): 24108 Marketing Foundations; 26133 Business Information Analysis

Undergraduate

Introduces students to the concepts and practices of marketing research. Topics covered range from research problem definition to research design, implementation and finally interpretation of research results. Specifically focuses on Australian practices, procedures and ethics. Considerable focus is placed upon the microcomputer and its role in modern research. Skill development in both spreadsheet and statistical applications software is a key aim.

### 24704

### Managing Client Relations

6cp

This subject reviews the nature of the business development process through focusing upon the specific needs of clients. It explores the complex issues of determing and focusing on client needs as a key activity for IT managers who wish to maximise their impact. Specific IT-based case material will be used throughout the course to ensure that participants recognise the essential relationship between product and client satisfaction.

# 24726

# Global Marketing Management

8ср

Postgraduate

Executive MBA (B078) students only

Introduces students to strategic marketing management in a global context. It is managerially oriented and focuses on the problems faced by marketing managers as they enter an increasingly dynamic, complex, and rapidly changing global environment. Within this context a number of key areas are addressed, including strategic thinking, critical analysis, problem-solving and decision making under conditions of uncertainty, and the development of strategic marketing plans. Broader issues such as globalisation, the impact of technology on marketing strategies, strategic partnerships, and the future of marketing are also covered. Emphasis is on the application of theoretical knowledge through a major project and case analysis.

### 25115

### **Economics for Business**

6cr

Undergraduate

Develops an understanding of basic economic principles and their application to business decision making and business strategy. Provides a foundation for further studies in business, economics and finance. Provides students with the ability to read and understand analyses presented in the financial and business media and be able to effectively participate in the formulation of business strategies.

# Microeconomic Theory and Policy

6cp; prerequisite(s): 25110 Microeconomics1 or 25115 Economics for Business Undergraduate

Shows how and why governments become involved in private sector activity. Emphasises the theoretical justification for regulation, the nature of market failure justifying the regulation and the consequences. Topics include cost-benefit analysis, public enterprise, deregulation and privatisation, competition policy, trade and industry theory and policy.

1 This subject is no longer offered.

# 25303

### Industry Economics

6cp; prerequisite(s): 25110 Microeconomics or 25115 Economics for Business Undergraduate

Examines the changing structure, conduct and performance of Australian industry within the context of international restructuring. Issues include barriers to entry, oligopoly pricing, vertical integration, market structures and technological change, and mergers and takeovers in a theoretical and empirical context. Emphasis is placed on practical analysis of firm behaviour in a market.

1 This subject is no longer offered.

# 25309

### Macroeconomic Theory and Policy

6cp; prerequisite(s): 25209 Macroeconomics or 25115 Economics for Business Undergraduate

Traces the development of classically-oriented and Keynesian-oriented theory and seeks to identify how these theoretical developments have affected the way policies are put into practice when addressing key macroeconomic issues. These issues include: the operation of monetary and fiscal policy; inflation and unemployment; business cycle theory; and international influences on the domestic economy.

### 25705

# Financial Modelling and Forecasting

6cp

Postgraduate

Introduces students to various models and tools used in financial planning. Students will learn basic forecasting techniques as well as the fundamentals of risk analysis and how risk may be incorporated into financial simulation models. Develops students' ability to implement theoretical concepts developed and used in other subjects.

### 25742

### Financial Management

Postgraduate

Provides the analytical framework for corporate financial decisions. Introduces students to financial theory and to the tools of financial decision making. Concerned primarily with investment project evaluation and determining the financing mix necessary to achieve the firm's financial objectives. Topics include the conceptual basis of financial decisions, accounting statements and cash flow, net present value, the valuation of debt and equity, capital budget issues, risk and return, the capital asset pricing model (CAPM), capital structure - determinants of the optional balance of debt and equity, dividend policy, and leasing.

#### 33401

### Introductory Mathematical Methods

6cp; 3hpw

Topics covered include: matrices and determinants; gaussian reduction; solution of linear equations; eigenvalues and eigenvectors; vectors; products of vectors; equations of lines and planes; complex numbers; polar form and de Moivre's theorem; linear independence of vectors; rank of a matrix; symmetric matrices; quadratic forms; differentiation and integration of functions of one variable; functions of several variables; partial derivatives; maxima and minima; Taylor's theorem; gradient and Hessian; and classification of critical points.

¹ This subject is no longer offered.

# Operations Research Modelling

6cp; 4hpw

This subject is an introduction to operations research methodology. A variety of problems from manufacturing, construction, transportation and finance is considered, together with approaches to the formulation of the corresponding mathematical models. Solutions for the models are obtained using decision support software with particular emphasis on spreadsheets and their uses in business applications. The art of model building is discussed in conjunction with an introductory description of several important solution methods including matrices, determinants and vectors.

# 35241

### Optimisation 1

6cp; 4hpw; prerequisite(s): 35102 Mathematics 2; 35140 Operations Research Modelling

Topics covered include: fundamental ideas of optimisation; the two-phase simplex method and the revised simplex method; duality theory; the dual simplex method and the cutting plane method; sensitivity analysis; and first- and second-order optimality conditions for nonlinear programming.

### 35252

### Statistics 2

6cp; 4hpw; prerequisite(s): 35102 Mathematics 2; 35151 Statistics 1

Topics in this subject include: probability; random variables and their probability distributions; multivariate probability distributions; functions of random variables; sampling distributions and the Central Limit Theorem; applications to estimation; and multivariate normal distribution.

#### 35342

#### Optimisation 2

6cp; 4hpw; prerequisite(s): 35241 Optimisation 1

This subject covers the following topics: dual simplex method; basic ideas of cutting plane and branch-and-bound methods for integer programming; primal-dual algorithm; parametric linear programming; goal programming; numerical methods for unconstrained nonlinear optimisation; Newton's method; conjugate direction methods; numerical methods for constrained nonlinear optimisation; feasible direction methods; penalty and barrier methods; and introduction to stochastic programming.

### 35344

### **Network Optimisation**

6cp; 4hpw; prerequisite(s): 35241 Optimisation 1

Topics covered include: transportation problems; the transportation simplex method; assignment problems; trans-shipment problems; shortest path problems; maximum flow problems; project planning and scheduling; CPM cost models; network simulation models; minimum-cost network flow problems; network simplex method; out-of-kilter algorithms; algorithm analysis; auction algorithm; and solution of problems using commercially-available software.

# 35353

### Regression Analysis

6cp; 4hpw; prerequisite(s): 35252 Statistics 2

Topics in this subject include: simple and multiple linear regression; general linear models; weighted regression; diagnostics and model building; analysis of covariance; regression graphics; and introduction to nonlinear regression.

# 35355

# **Quality Control**

6cp; 4hpw; prerequisite(s): 35252 Statistics 2

This subject covers the following topics: total quality management; process control for attributes and variables, introducing Shewhart, Cusum, and EWMA control charts and covering regular, short, multiple-stream and serially correlated processes; acceptance sampling for attributes and variables; process capability analysis, including nonconforming ppm, capability ratios and Taguchi quality loss; tolerance analysis covering linear and nonlinear combinations of components, and Taguchi's method; and reliability analysis, including reliability measures, bounds and estimation for individual components and systems, and spare parts provisioning.

#### 35356

# Design and Analysis of Experiments

6cp; 4hpw; prerequisite(s): 35212 Linear Algebra; 35252 Statistics 2

Topics covered include: introduction to general concepts of the design of experiments; completely randomised, randomised complete block and Latin square designs; multiple comparisons; factorial designs; and introduction to Taguchi designs and response surface designs.

# **Probability and Stochastic Processes**

6cp; 4hpw; prerequisite(s): 35252 Statistics 2

Topics in this subject include: probability; random variables and expectations; limit theorems; Markov chains; the Poisson process; and birth and death processes.

# 35363

### Simulation Modelling

6cp; 4hpw; prerequisite(s): 35170 Introduction to

This subject covers the following topics: Bayesian statistics and Bayesian decision making; Monte Carlo simulation; prior distributions; decision trees and influence diagrams; conjugate distributions; various queuing models and applications; simulation studies; modelling systems and various representations; statistical modelling; input data analysis; verification and validation; output analysis; comparison of systems designs; random number generation and tests; random variate generation; and variance reduction techniques.

### 68101

# Foundations of Physics

6cp; 6hpw

This is a foundation physics subject primarily for students in the physical sciences. It covers the fundamentals of dynamics and statics, fluid mechanics, thermal physics, waves and electricity. A strong emphasis is placed on the investigative nature of physics research with an integrated laboratory program developing further the problem-solving skills of the lecture and tutorial material to an appreciation of good experimental design and significance in information obtained under real-life modelling situations.

### 68201

### Physics in Action (Physics 2)

6cp; 6hpw; prerequisite(s): 68101 Foundations of **Physics** 

This subject extends the material studied in 68101 Foundations in Physics, with statics and dynamics extended to a study of rotation, thermal physics extended to the first two laws of the thermodynamics, and waves extended to a study of geometrical optics and optical devices. At the same time, students are introduced to electric circuitry and electromagnetism and commence a historical study of atomic and nuclear physics.

### 68311

# Atoms, Photons and Orbits (Physics 3)

6cp; 5hpw; prerequisite(s): 33190 Mathematical Modelling for Science or equivalent; 68201 Physics in Action (Physics 2); corequisite(s): 33290 Computing and Mathematics for Science

First-year mathematical techniques enable students in this subject to extend the understanding and modelling of mechanics and optics to more real-world situations and at the same time explores the exciting evolution from Newtonian Physics to Quantum Physics. It provides the foundation for later core physics subjects, the emphasis of the subject being mainly theoretical, but it has an experimental component applying the explorative first year techniques to optical experimentation, a study of radioactivity and computer simulation of dynamical systems.

Mechanics topics include the generalisation of kinematics to 3D motion and orbital mechanics. Optics studies include refraction, lenses, photography, the dispersion of light, aberrations, polarisation and scattering phenomena. 'Modern' physics studies the basic properties of the atom, radioactivity and relativity and lead into an introductory segment on Quantum Physics.

### 68312

# **Electrotechnology and Data Analysis**

6cp; 5hpw; prerequisite(s): 68201 Physics in Action (Physics 2); 33290 Computing and Mathematics for Science

Scientific writing, rigorous analysis and a command of methods of presentation are essential tools for the physicist of the 21st century. In this subject, students study the concepts of electricity, electromagnetism and electrical measurements and their application to dynamical systems, and at the same time explore contemporary techniques of analysis of experimental data. These two areas are integrated into a project component which develops further the skills of experimental design developed in 68101 Foundations of Physics in an electromagnetic context, and enables the students to become critical analysers of their own and others' experimental work.

# **Electronics**

6cp; 5hpw; prerequisite(s): 68201 Physics in Action (Physics 2); 33290 Computing and Mathematics for Science

This subject develops students' understanding of the basic building blocks of electronic circuits. Review of circuit theory, semiconductor theory, diodes and bipolar transistors, transistors as switches and linear devices, introduction to digital electronics, logic gates, latches and counters, frequency characteristics and feedback in amplifiers, operational amplifiers. Hands on learning, guided discovery activities in laboratory context are a key feature. The subject is equivalent to the Engineering subject 48520 Electronics.

### 68411

# Vibrations, Quanta and Nucleons (Physics 4)

6cp; 5hpw plus 1 flexible; prerequisite(s): 68311 Atoms, Photons and Orbits (Physics 3); 33290 Computing and Mathematics for Science; 33390 Mathematics and Scientific Software or equivalent

This subject aims to complete the basic core physics training for Applied Physics students by applying the treatment of mechanics to vibrations, variable mass and fluid flow and to the special features of the mechanics of the atom. Students learn the basic techniques of quantum mechanics to begin to understand the findings of atomic theory introduced in 68311 Atoms, Photons and Orbits (Physics 3). Processes involving the considerable forces associated with the inner structure of the nucleus are studied to provide an understanding of the power of nuclear applications in the fields of medicine and forensic science. This is core material, providing the foundation for a study of the solid-state and leads directly into the subject 68511 Quantum and Solidstate Physics.

#### 68514

#### Electronics and Interfacing

6cp; 5hpw; prerequisite(s): 68314 Electronics; 48520 Electronics or equivalent instrumentation experience

The subject further develops students' understanding of computer interfacing in applied physics and science in general. Students learn how to construct functioning interfaces and the role of digital electronics. Digital electronics, computer interfacing, and

the use of the LabView package are the main components of the subject. A sequence of small projects involves the design and construction of circuits and interfaces and is a key feature of the subject. This subject is useful to students in science courses who have an interest in developing their skills in the instrumentation and interfacing areas, with project work oriented to students' needs and interests.

### 70105

# Legal Research

4cp

Undergraduate

This subject aims to familiarise students with the basic tools available to engage in legal research. It includes an introduction to various paper-based resources (citations, digests, etc.).

Students are also introduced to the use of computerised systems as an aid to legal research. The emphasis is on Internet-based systems such as AustLII, Scale Plus and Butterworths Online. CD-ROM products are also briefly covered.

#### **Text**

Watt, R J, Concise Legal Research, 3rd edn, Federation Press, 1997

### 70113

### Legal Process and History

10cp Undergraduate

This subject aims to introduce students to, and to provide students with, a sound working knowledge of the Australian legal and constitutional environment. The subject also aims to equip students with certain legal skills in particular, the skills of case analysis, statutory interpretation, legal problem solving and critical analysis - which are essential to the study and practice of the law. Students are asked to consider what is law, who makes law, and how and why the law has developed in the way that it has. They will also examine the institutions that make up our legal system the legislature, the Crown and the executive, the courts and the 'legal players' (the judge, the jury and the legal practitioner) - and explore the principles and doctrines that underpin our legal system. Further, they are asked to consider why our legal system is so different from that of some of our regional neighbours, and to evaluate the strengths and

weaknesses of the common law legal system. Valuable insight into the way our legal system operates may be gained through using a historical approach, and this means delving back into English, as well as Australian, legal and constitutional history. Such an approach also facilitates refinement of critical analysis skills. At the end of the subject, students should have a fully developed understanding of the Western legal tradition, the place of common law in that system, and the ramifications of living under a Westminster parliamentary system as well as a federal system.

### Texts and references

Morris, G et al, Laying Down the Law, 4th edn, Butterworths, 1996

Parkinson, P, Tradition and Change in Australian Law, 2nd edn, Law Book Company, 2000

### 70211

#### Law of Contract

8cp; prerequisite(s): 70113 Legal Process and History; corequisite(s): 70217 Criminal Law; 70105 Legal Research Undergraduate

This subject deals with the legal principles related to binding promises, the difficulties arising out of their interpretation, how they may become defeasible, issues relating to their performance, and how they may be discharged. Topics covered include the formation of contracts (agreement, consideration, intention, writing); content and construction; vitiating factors (capacity, privity, mistake, misrepresentation, illegality, duress, undue influence, unconscionability); discharge by performance and non-performance of contractual obligations (breach and frustration); and contractual remedies.

#### Texts and references

Carter, JW & Harland, DJ, Cases and Materials on Contract Law in Australia, 3rd edn, Butterworths, 1998

Carter, J W & Harland, D J, Contract Law in Australia, 4th edn, Butterworths, 1997

Monahan, Essential Contract Law, 2nd edn, Cavendish Press, 2001

### 70217

### **Criminal Law**

6cp; corequisite(s): 70113 Legal Process and History; 70105 Legal Research Undergraduate

This subject deals with the substantive criminal law, the doctrines and rules that define the conditions of criminal liability and some aspects of the procedural law. Australian common law doctrine and the Crimes Act 1900 (NSW) are considered. Topics include the nature of crime; the doctrine of mens rea and actus reus; presumption of innocence; offences against the person; property offences; strict liability; complicity; criminal defences; criminal investigation and procedure; and drug law.

#### Texts and references

Crimes Act 1900 (NSW)

Fisse, B (ed.), Howard's Criminal Law, 5th edn, Law Book Company, 1990

Gillies, P, Criminal Law, 3rd edn, Law Book Company, 1993

Helipern, D & Yeo, S, Cases on Criminal Law, Law Book Company, 1995

Waller, L & Williams, C R, Criminal Law: Text and Cases, 8th edn, Butterworths

Brown, D et al, Criminal Law, 2nd edn, Federation Press, 1996

### 70311

### Law of Tort

8cp; prerequisite(s): 70113 Legal Process and History; corequisite(s): 70105 Legal Research; 70217 Criminal Law Undergraduate

This subject discusses the functions and aims of the tort. It then examines the nature of tortious liability in the light of a selection of specific torts, namely, trespass to the person, goods and land; the action on the case for wilful injuries; conversion; negligence; nuisance; and defamation. Reference is also made to defences, vicarious liability and contribution between tortfeasors.

Attention is drawn to the relevance of the type of conduct complained of (intentional, reckless, careless); the nature of the various interests protected (personal security, chattels, land, reputation, economic interests, domestic relations); the adaptability of tort law to changing needs and values of society (thus the introduction, dominance and current perceived limitations of the fault concept); and the element of policy expressed or implied in judicial decisions.

### Texts and references

Balkin, R P & Davis, J L R, Law of Torts, Butterworths, 1996

Fleming, J G, The Law of Torts, 9th edn, Law Book Company, 1998

Trindade, F & Cane, P, The Law of Torts in Australia, 3rd edn, Oxford University Press, 1999

Gardiner, D, Outline of Torts, Butterworths

Luntz, H & Hambly, A D, Torts: Cases and Commentary, 3rd edn, Butterworths, 1995

Morison, W L & Sappideen, C, Torts, Commentary and Materials, 8th edn, Law Book Company, 1993

# 70317

# Real Property

8cp; prerequisite(s): 70211 Law of Contract; corequisite(s): 70311 Law of Tort Undergraduate

Topics covered include agreements for sale of land; time for completion; Torrens title and priorities; old system, possessory, qualified and limited title; fixtures; trespass to land; co-ownership; easements; covenants; mortgages; and leases.

#### Texts and references

Butt, Land Law, 3rd edn, Law Book Company, 1996

Conveyancing Act 1919 (NSW)

Land & Skapinker, Sale of Land, 3rd edn, Longmans

Real Property Act 1900 (NSW)

Sappideen, C et al, Cases and Materials on Real Property, 3rd edn, Law Book Company, 1990

#### 70318

### Personal Property

4cp; prerequisite(s): 70211 Law of Contract; corequisite(s): 70311 Law of Tort Undergraduate

Topics covered include classifications of personal property, choses in action and choses in possession; acquisition of title to goods; law of bailment; insurance; securities interests in chattels; and law of negotiable instruments, with particular reference to cheques.

#### Text

Helmore, B A, Commercial Law and Personal Property in NSW, 10th edn, by Carter, J W et al, Law Book Company, 1992

# 70417

### Corporate Law

8cp; prerequisite(s): 70317 Real Property Undergraduate

The response of the law to the activities of business entities is dealt with in this subject. Although the emphasis is on corporations, there is a brief discussion of the manner in which non-corporate entities including partnerships are regulated. The study of corporations law includes an overview of the historical developments, the current method of regulation and the proposals for reform.

### Texts and references

Ford, H A J, Austin, R P and Ramsay, I M, Principles of Corporations Law, Butterworths, 2000

Redmond, P, Corporations Law – Cases and Materials, Law Book Company, 1999

Australian Corporations Legislation (2000 edition)

### 70516

### **Equity and Trusts**

8cp; prerequisite(s): 70317 Real Property; corequisite(s): 70417 Corporate Law Undergraduate

Equity is a body of rules or principles developed in the Court of Chancery before 1873. The doctrines of equity developed as a response to defects in the English common law system, defects which had resulted in rigidity and inflexibility. A knowledge of the principles of equity is therefore crucial to a complete understanding of the law in those areas of private law, particularly property and contract, where equity intervened to modify the operation of the rules of the common law. In that sense, the doctrines of equity form part of the law of contract or property. Equity also developed remedies, such as the injunction, which were unknown to the common law and which have a continuing influence in public law as well as private law.

#### Texts and references

Evans, M B, Outline of Equity and Trusts, Butterworths, 1988

Ford, HAJ & Lee, WA, Principles of the Law of Trusts, 2nd edn, Law Book Company, 1990

Heydon & Loughlin, Equity and Trusts and Cases and Materials, Butterworths, 1997

Meagher, R P & Gummow, W M, Jacobs' Law of Trusts in Australia, 5th edn, Butterworths,

Meagher, R P, Gummow, W M C & Lehane, J R F, Equity: Doctrines and Remedies, 3rd edn, Butterworths, 1992

Parkinson, P, The Principles of Equity, Law Book Company, 1996

### 70616

#### Federal Constitutional Law

8cp; prerequisite(s): 70113 Legal Process and History; 70105 Legal Research; corequisite(s): 70211 Law of Contract Undergraduate

This subject examines the effect of the Australian Constitution on the legal and fiscal relationship of the Commonwealth, States, and Territories. In order that students develop an understanding of the techniques of judicial review in the constitutional context, a range of powers given to the Commonwealth is examined. These include trade and commerce, corporations, taxation and external affairs. Other areas examined are explicit and implicit restrictions of power, the questions of inconsistency and intergovernmental relations. The general role of the High Court in Australian constitutional law is considered, along with the Separation of Powers Doctrine as it relates to the independence of the judiciary.

# Texts and references

Booker, K, Glass, A & Watt, R, An Introduction to Australian Federal Constitutional Law, 2nd edn, Butterworths, 1998

Keyser, P, Constitutional Law, Butterworths, 1998

Blackshield, T & Williams, G, Australian Constitutional Law and Theory: Commentary and Materials, 2nd edn, Federation Press, 1998

#### 70617

#### Administrative Law

8cp; prerequisite(s): 70616 Federal Constitutional Law

Undergraduate

This subject deals with the supervision of the executive arm of government by the courts and by other statutory mechanisms. Topics include the grounds of review of administrative decisions, in particular natural justice; ultra vires; jurisdictional error and error of law; remedies available at common law upon judicial review, including the prerogative writs

and equitable remedies; judicial review under the Administrative Decision (Judicial Review) Act 1976 (Cwlth); a review of Commonwealth decisions under the Administrative Appeals Tribunal Act 1976 (Cwlth); and the role and function of the Ombudsman. If time permits, freedom of information and privacy legislation will also be touched upon, and the role of the Independent Commission Against Corruption (ICAC).

### Texts and references

Sykes, E et al, General Principles of Administrative Law, 4th edn, Butterworths, 1997

Allars, M., Australian Administrative Law: Cases and Materials, Butterworths, 1997

Douglas, R & Jones, M, Administrative Law: Commentary and Materials, 2nd edn, Federation Press, 1996

Ellis-Jones, I, Essential Administrative Law, Cavendish, 1997

### 71005

#### Practice and Procedure

4cp; prerequisite(s): 70516 Equity and Trusts Undergraduate

Practice and Procedure is a core subject that develops the students' understanding of the process of litigation from the commencement of proceedings through to the final hearings. Topics include statements of claim in contracts and torts; defence, cross-claims and replies; equitable proceedings; particulars; discovery, inspection and interrogatories; notice of motion; drafting affidavits; subpoenas; and advocacy skills.

### 71116

#### Remedies

6cp; prerequisite(s): 70516 Equity and Trusts Undergraduate

This subject deals with the range of courtordered remedies available to a plaintiff in civil proceedings. The more common remedies are those administered at either common law or in equity: damages; equitable remedies (declarations, specific performance, injunctions, Anton Pillar orders, account, equitable damages); and statutory and common law remedies for deceptive conduct. Bankruptcy and insolvency is also considered.

### Texts and references

Covell, W & Lupton, K, Principles of Remedies, Butterworths, 1995

Tilbury, M J, Civil Remedies, Vols I & II, Butterworths, 1990 and 1993

Tibury, M, Noone, M & Kercher, B, Remedies: Commentary and Materials, 3rd edn, Law Book Company, 2000

### 71216

### Law of Evidence

6cp; corequisite(s): 70516 Equity and Trusts Undergraduate

This subject deals with adjectival law and the determination of how information may be presented to the court in litigation, when such information is admissible in evidence, and how the rules of proof are applied. The inclusionary rule of relevance, the various exclusionary rules (such as hearsay, opinion, tendency, coincidence, credibility, character, privilege), and the judicial discretion to exclude are studied, as well as the incidence of the burden of proof.

### Texts and references

Aronson, M et al, Litigation: Evidence and Procedure, 6th edn, Butterworths, 1998

Australian Law Reform Commission, Evidence, ALRC Reports, Nos 26 (Interim, two vols, 1985) and 38 (1987)

Brown, R, Documentary Evidence in Australia, 2nd edn, Law Book Company, 1996

Buzzard, J H, May, R & Howard, M N, Phipson on Evidence, 14th edn, Sweet & Maxwell, 1990

Byrne, D & Heydon, J D, Cross on Evidence, 6th Aust. edn, Butterworths, 2000

Byrne, D & Heydon, J D, Cross on Evidence, loose-leaf, Butterworths

Campbell, E & Waller, L, Well and Truly Tried: Essays on Evidence, Law Book Company, 1982

Forbes, J R S, Similar Facts, Law Book Company, 1987

Gillies, P, Law of Evidence in Australia, 2nd edn, Legal Books, 1991

Glass, H H (ed.), Seminars on Evidence, Law Book Company, 1975

Heydon, J D, A Guide to the Evidence Act 1995 (Cwlth) and (NSW), 2nd edn, Butterworths, 1997

Ligertwood, A, Australian Evidence, 3rd edn, Butterworths, 1998

Ligertwood, A, Australian Evidence: Cases and Materials, Butterworths, 1995

McNicol, R, Law of Privilege, Law Book Company, 1992 Odgers, S, *Uniform Evidence Law*, 4th edn, Law Book Company, 2000

Palmer, A, Principles of Evidence, Cavendish, 1998

Waight, P K & Williams, C R, Evidence: Commentary and Materials, 5th edn, Law Book Company, 1998

Wellman, F, The Art of Cross-Examination, 4th edn, Collier Books, 1936

Wells, W A N, Evidence and Advocacy, Butterworths, 1988

Wigmore, J H, Evidence in Trials at Common Law, Boston, 1961

Zariski, A (ed.), Evidence and Procedure in a Federation, Law Book Company, 1993

### 79203

#### **Business Law and Ethics**

6cp; core

Undergraduate Cross-disciplinary

Business Law and Ethics provides the fundamental foundation for all future law subjects in the Bachelor of Business. It covers Australian and international commercial relationships in contract and consumer protection, as well as developing laws, such as intellectual property. Students learn legal research techniques involving the Internet and paper-based library resources and focus on skills and developing general principles that can be applied to all areas of law, both now and in the future. In particular, the subject focuses on resolving personal and professional ethical dilemmas, as well as the choice of resolving commercial disputes in and outside the court system.

#### 85208

# Reconciliation Studies

6ср

Undergraduate

Reconciliation is a key strategy for a sustainable future for Australia. By reconciliation we mean creating 'a united Australia which respects this land of ours; values the Aboriginal and Torres Strait Islander heritage; and provides justice and equity for all' (Council for Aboriginal Reconciliation, 1992). Reconciliation Studies introduces students to the challenges of this process. Core reconciliation issues are investigated and discussed, drawing on relevant life experiences, academic research and professional practice. Skills in applying reconciliation principles in a pro-

fessional field, industry or community are developed, including the use of cultural plurality and diversity of perspectives found in reference material and the classroom.

### 85209

### Reconciliation Studies

Undergraduate

For subject description, see 85208 Reconciliation Studies.

### 85210

### Reconciliation Studies

6cp

Postgraduate

For subject description, see 85208 Reconciliation Studies.

### 85211

### Reconciliation Studies

Postgraduate

For subject description, see 85208 Reconciliation Studies.

### 95556

#### Technology, Society and Change

A University-wide transdisciplinary subject. 6cp; prerequisite(s): 48cp of a degree must be completed

This subject examines and illustrates the interdependence and tensions between society, technology and change. It addresses the question of what is technology? and how this has influenced and has been influenced by social values and institutions.

Some of the following issues are looked at: How have many different societies valued and defined social justice? How are the tensions between technological and communal interests understood? How has technology been an instrument and product of society's struggle with power and control? How have different societies perceived progress? How have these perceptions shaped their past? How might they shape their future? How do different societies come to define and deal with risk? How have different societies valued and strived for the sustainability of life on earth? This subject provides an opportunity for students to recognise what new ways of thinking a transdisciplinary approach can offer. It also engages students in grappling

with some of the tensions between disciplinespecific discourses and transdisciplinary thinking.

### 95563

# Digital Media Development Process

6ср

This subject examines the nature of the interactive multimedia development process. It explores job specifications, multimedia development teams and roles, interactive media project methods, costs associated with development, and significant environmental issues affecting digital media production such as government policies and legislation, including copyright and intellectual property.

### 95564

# Digital Media Technologies

This subject contributes to the core sequence as an overview of some the software and hardware technologies utilised in the development and maintenance of moderately complex websites exhibiting sophisticated interactivity and which require a more systematic approach to management. It provides an opportunity for students to demonstrate an understanding of the skills and issues relevant to the creation and management of websites of moderate complexity. These skills may include simple HTML authoring, browser scripting with Javascript, interaction with back-end database environments using scripting engines such as ColdFusion, ASP, PHP and WebObjects, and other skills as appropriate.

### 95565

# Digital Graphics and the Still Image

6ср

This subject introduces students to the uses of typographic text, still images and graphic design in the production of online communications. Students are expected to master the core skills in these activities, and to produce several projects for assessment demonstrating their command of visual and written literacy in online communication.

### 95566

# Digital Information and Interaction Design

This subject is concerned with the planning and implementation of digital texts and environments. It explores the use and integration of visual, textual and aural components of these environments aimed at producing specific reactions or effects in targeted users. Includes issues in information and interaction design which contribute to building digital systems through which users can more effectively communicate, interact and learn.

# 95567 Digital Media in Social Context

6ср

This subject uses the interdisciplinary approach of media studies to explore the debates around the role of the media in society, and the changes that digital media are reflecting and contributing to that role. It takes some of the common terms associated with the new media, such as information revolution, global village, collapse of time and space, globalisation, constant change and new forms of democracy, and analyses their usage in an historical context to facilitate an informed and critical view of the issues.

### 95568

# Digital Sound and the Moving Image

6ср

This subject introduces students to the uses of sound and the moving image in the production of online communications. Students are expected to master the core production skills of recording, editing, interviewing and scripting in these media, and to produce several projects for assessment demonstrating their command of aural and visual literacy in online communication.

### 95569

### Digital Media Project

12cp; prerequisite(s): 48 credit points in the Master of Interactive Multimedia

This is the capstone project subject where students consolidate their knowledge and skills acquired in their studies. It involves the planning, development and production of a multimedia project by individuals or teams of students, and may incorporate work-based project work and/or work experience.

# INTERNATIONAL STUDIES SUBJECTS

# Language programs

# 971111, 972111, 973111, 974111 Chinese Language and Culture

The Chinese program is open to students who are either complete beginners, who first learnt Chinese at secondary school level in Australia or who already have a working knowledge of Chinese characters and communicative competence in a Chinese language other than Modern Standard Chinese. There are three points of entry into this program: Chinese 1 for complete beginners; Chinese 3 for students who have successfully completed HSC 2/3unit Chinese; and Chinese 7 for students who have a working knowledge of Chinese characters, as well as communicative competence in a Chinese language other than Modern Standard Chinese. Students in the combined degree take four consecutive units in the program, usually either units 1-4, 3-6 or 7–10, determined by their point of entry. Other programs may be negotiated according to the student's level of proficiency.

The Chinese language program is designed to provide students with the communicative skills necessary to undertake In-country Study in China. A communicative approach is adopted for classroom instruction and students are expected to participate fully in class activities in the process of acquiring practical language skills. The teaching incorporates an introduction to Chinese culture and helps students to appreciate the wider cultural ramifications of Chinese in various contexts. The program lays a solid foundation for further cultural studies in Chinese.

### Chinese Unit 1

8cp; 6hpw; prerequisite: nil

Chinese 1 aims to develop in students a survival communicative ability in basic social interactions. It teaches students *Pinyin*, the official transcription system, as a guide to the pronunciation of the Chinese language, and some basic structures and devices of the language. Students are expected to know about 300 Chinese characters by the end of this unit.

#### Chinese Unit 2

8cp; 6hpw; prerequisite: Chinese Unit 1

Chinese 2 continues to develop in students a survival communicative ability in basic social interactions. It also introduces students to some of the basic structures and devices of the language. Students are expected to know about 600-800 Chinese characters by the end of this unit.

### Chinese Unit 3

8cp; 6hpw; prerequisite: Chinese Unit 2 or HSC 2/ 3-unit Chinese

Chinese 3 is the entry point for students who have completed HSC 2/3-unit Chinese and who first learnt Chinese at school in Australia.

Chinese 3 aims to further develop students' oral communicative competence in basic social interactions. More written texts are gradually introduced to enhance the ability of students to use Chinese characters. The basic structures and devices of the language are reinforced. Students are expected to know about 1,200 Chinese characters by the end of this unit.

#### Chinese Unit 4

8cp; 6hpw; prerequisite: Chinese Unit 3

Chinese 4 is the second unit for students who have completed HSC 2/3-unit Chinese.

Chinese 4 aims to further develop students' communicative competence in basic social interactions. More written texts are introduced to enhance the ability of students to use Chinese characters. The basic structures and devices of the language are also reinforced. Students are expected to know about 1,600 Chinese characters by the end of this unit.

# Chinese Unit 5

8cp; 6hpw; prerequisite: Chinese Unit 4

Chinese 5 is the third unit for students who first learnt Chinese at school in Australia and obtained HSC 2/3-unit Chinese.

Chinese 5 aims to further develop students' communicative competence in general social interactions. While reinforcing the macroskills of reading, writing, listening and speaking, this unit focuses on practical writing skills. Students are expected to know about 2,000 Chinese characters by the end of this unit.

### Chinese Unit 6

8cp; 6hpw; prerequisite: Chinese Unit 5

Chinese 6 is the fourth subject for students who have obtained HSC 2/3-unit Chinese with basic communicative skills and the ability to undertake In-country Study in China.

Chinese 6 aims to further develop students' communicative competence in general social interactions. While reinforcing basic structures and devices of the language, this unit further develops students' writing skills. Students are expected to know about 2,500 Chinese characters by the end of this unit.

#### Chinese Unit 7

8cp; 4hpw; prerequisite: a working knowledge of Chinese characters as well as communicative competence in a Chinese language other than Modern Standard Chinese.

Chinese 7 is for students who have a working knowledge of Chinese characters as well as communicative competence in a Chinese language other than Modern Standard Chinese.

This unit aims to develop communicative competence to meet students' needs in social and professional interactions where Modern Standard Chinese (also known as Mandarin, Putonghua or Guoyu) is used. Simplified characters, pronunciation, intonation and situational Chinese usages are the focus of class instruction.

#### Chinese Unit 8

8cp; 4hpw; prerequisite: Chinese Unit 7 or equivalent

This unit aims to develop a communicative competence at a more sophisticated level. Students are exposed to a range of Chinese texts in varied sociocultural contexts in order to master the use of Chinese for different purposes, and are provided with opportunities to further improve speaking and listening skills through discussions of the texts and making cross-cultural comparisons.

#### Chinese Unit 9

8cp; 4hpw; prerequisite: Chinese Unit 8 or equivalent

This unit aims to develop in students a high level of communicative competence required for understanding various electronic and published media articles, correspondence and texts related to contemporary society where Modern Standard Chinese (also known as Mandarin, Putonghua or Guoyu) is used. Students are exposed to a range of Chinese

texts in order to master the use of Chinese for different purposes, and are provided with opportunities to maintain speaking and listening skills through discussion of the texts.

#### Chinese Unit 10

8cp; 4hpw; prerequisite: Chinese Unit 9 or equivalent

This unit aims to further develop in students a high level of communicative competence in reading and writing to meet students' needs in social and professional interactions. Modern Standard Chinese (also known as Mandarin, Putonghua or Guoyu) is used. Students are exposed to a range of diverse texts from modern Chinese literature, history, language and culture in order to master the use of written Chinese for different purposes, and are provided with further opportunities to maintain speaking and listening skills through discussion of the texts.

# 971411, 972411, 973411, 974411 French Language and Culture

French is a language program for students who are either complete beginners or who first learnt French at school. There are two points of entry: the first for complete beginners; the second for students who have successfully completed HSC 2/3-unit French, or its equivalent. Students in the combined degree take four units in the program, either units 1–4 (beginners) or 3–6 (post-HSC), determined by their point of entry. Students with a language competence in French that is higher than the program may be able to undertake further studies in French at other universities in the Sydney area through arrangements made by the Institute.

The language program covers a broad range of communicative situations relevant to daily interaction in French. The focus is on the development of speaking, listening, reading and writing skills appropriate to the situations that students are likely to encounter. Vocabulary and grammar cover a range of themes and are presented using written and audiovisual materials.

Upon successful completion of the program, students are expected to be able to communicate about familiar things, events and opinions and to have developed skills and strategies for continuing their learning of the language in French-speaking environments. Those students with prior knowledge of French entering the program at a higher level

are expected to communicate comfortably on a wide range of topics, with the ability to adjust their language according to social variables such as formality, age and status. Each unit is covered in 13 weeks in one semester. There are six hours of language classes per week. Some of the class time may be conducted in the Learning Resources Centre using computers and the language laboratory.

### French Unit 1

8cp; 1st semester, 6hpw; prerequisite: nil

French 1 is the first in a series of four units designed to provide students who have no prior knowledge of the French language with basic survival skills in language and culture, and the ability to undertake In-country Study in France.

By the end of the unit, students are expected to have achieved 'elementary proficiency' and be able to satisfy immediate communication needs required in basic social interaction, using expressions and phrases they have learnt. The program allows for the development of listening, speaking, reading and writing skills, and an understanding of the sociocultural contexts in which the language is used. In particular, students gain an awareness of the background of French-speaking countries. Students also develop strategies for predicting the meaning of new expressions and anticipating ways to express new meanings.

The approach adopted is communicative and provides students with many opportunities to interact and use the language in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

### French Unit 2

8cp; 2nd semester, 6hpw; prerequisite: French Unit 1 or equivalent

French 2 is the second in a series of four units designed to provide students who have no prior knowledge of the French language with basic survival skills in language and culture, and the ability to undertake In-country Study in France.

By the end of the unit, students are expected to have achieved 'minimum survival proficiency' in speaking, listening, reading and writing and be able to satisfy immediate communication needs and minimum courtesy requirements required in basic social interaction. Students also develop an understanding of the sociocultural contexts in which the language is used and develop further communication strategies.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in a meaningful way in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

#### French Unit 3

8cp; 1st semester, 6hpw; prerequisite: French Unit 2, HSC French, or equivalent

French 3 is the third in a series of four units for students with no prior knowledge of the French language, or the first in a series of four units for students who have successfully completed HSC 2/3-unit French, or its equivalent. It provides students with basic survival skills in French language and culture, and the ability to undertake In-country Study in France.

By the end of the unit, students are expected to have achieved communicative competence in speaking, listening, reading and writing skills to be able to satisfy all 'survival' needs and limited social needs. They are also expected to have developed an awareness of the various social and cultural contexts in which the language is used. In this unit, students develop the ability to understand the general content of magazine and newspaper articles.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

#### French Unit 4

8cp; 2nd semester, 6hpw; prerequisite: French Unit 3 or equivalent

French 4 is the fourth in a series of four units for students with no prior knowledge of the French language, or the second in a series of four units for students who have successfully completed French 3, HSC 2/3-unit French, or its equivalent; and equips these students with basic survival skills in French language and culture and the ability to undertake Incountry Study in France.

By the end of the unit, students are expected to have begun to develop the communication skills required to satisfy limited routine social or work demands related to the situation

covered. Students would also have developed an awareness of the various social and cultural contexts in which the language is used. Students learn to express opinions, discuss education, entertainment and travel, and develop the language skills and background knowledge required to find accommodation.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

#### French Unit 5

8cp; 1st semester, 6hpw; prerequisite: French Unit 4 or equivalent

French 5 is the third in a series of four units designed to provide students who have successfully completed French 4, HSC 2/3unit French, or its equivalent, with the ability to consolidate and extend their knowledge during a period of In-country Study in France. By the end of the unit, students are expected to have achieved the communicative competence required to satisfy routine social demands and limited work requirements in speaking, listening, reading and writing skills. They are also expected to have developed an awareness of the various social and cultural contexts in which the language is used. Students learn to communicate in French and to compare lifestyles, university life and education and practice interview techniques in preparation for In-country Study.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in a meaningful way in various social and cultural contexts. There are discussions and debates on set topics. Audiovisual equipment and computers are used to facilitate learning.

#### French Unit 6

8cp; 2nd semester, 6hpw; prerequisite: French Unit 5 or equivalent

French 6 is the fourth in a series of four units designed to provide students who have successfully completed French 5, or its equivalent, with the ability to consolidate and extend their knowledge during a period of Incountry Study in France.

By the end of the unit, students are expected to have achieved the communicative competence required for limited formal and informal conversations on practical and social topics. Students are also expected to have developed the ability to read and write with sufficient accuracy to meet a limited range of social needs and limited work needs. Language development focuses on topics such as economy, class and social stratification, gender roles, religion and beliefs, literature and the arts.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in a meaningful way in various social and cultural contexts. There are discussions and debates on set topics. Audiovisual equipment and computers are used to facilitate learning.

#### French Unit 7

8cp; 1st semester, 4hpw; prerequisite: French Unit 6

French 7 is designed to provide students who have successfully completed French 6, or its equivalent, with the ability to consolidate and extend their knowledge of French in preparation for a period of In-country Study in France.

By the end of the unit, students are expected to be able to communicate confidently in French in a wide variety of everyday situations, and to have comprehension skills which enable them to read a wide variety of authentic materials in French. Students are expected to extend their knowledge of present-day French society and culture and to have acquired the vocabulary and linguistic structures necessary to participate in formal and informal conversations with considerable accuracy.

The classroom approach provides students with opportunities to further develop their vocabulary, fluency and accuracy as they use French to respond to authentic texts and to discuss set topics. Students are required to read extensively in preparation for classroom presentations and discussions.

#### French Unit 8

8cp; 2nd semester, 4hpw; prerequisite: French Unit 7

French 8 is designed to provide students who have successfully completed French 7, or its equivalent, with the ability to consolidate and extend their knowledge of French in preparation for a period of In-country Study in France.

By the end of the unit, students are expected to demonstrate the linguistic skills and cultural awareness required to engage appropriately in a range of formal and informal discussions in social, professional and educational contexts. The classroom approach provides students with opportunities to further develop their vocabulary, fluency and accuracy as they use French to discuss set topics and to respond to authentic texts, television programs and films. Students are required to read extensively in preparation for classroom presentations and discussions.

# 971421, 972421, 973421, 974421 German Language and Culture

German is a language program for students who are either complete beginners or who first learnt German at school. There are two points of entry: the first for complete beginners; the second for students who have successfully completed HSC 2/3-unit German, or its equivalent. Students in the combined degree take four units in the program, either units 1-4 (beginners) or 3-6 (post-HSC), determined by their point of entry. Students with a language competence in German that is higher than the usual level accepted in the program may be able to undertake further studies in German at other universities in the Sydney area through arrangements made by the Institute.

The language program covers a broad range of communicative situations relevant to daily interaction in German. The focus is on the development of speaking, listening, reading and writing skills appropriate to the situations that students are likely to encounter. Vocabulary and grammar cover a range of themes.

Upon successful completion of the program, students are expected to be able to communicate about familiar things, events and opinions and to have developed skills and strategies for continuing their learning of the language in German-speaking environments. Those students with prior knowledge of German entering the program at a higher level are expected to communicate comfortably on a wide range of topics, with the ability to adjust their language according to social variables such as formality, age and status. Each unit is covered in 13 weeks in one semester. There are six hours of language classes per week. Some of the class time may be conducted in the Learning Resources Centre using computers and the language laboratory.

#### German Unit 1

8cp; 1st semester, 6hpw; prerequisite: nil

German 1 is the first in a series of four units designed to provide students who have no prior knowledge of the German language with basic survival skills in German language and culture, and the ability to undertake Incountry Study in Germany.

By the end of the unit, students are expected to have achieved 'elementary proficiency' and be able to satisfy immediate communication needs required in basic social interaction, using expressions and phrases they have learnt. The program allows for the development of listening, speaking, reading and writing skills, and an understanding of the sociocultural contexts in which the language is used. Students gain, in particular, an awareness of the background of German-speaking countries. Students also develop strategies for predicting the meaning of new expressions and anticipating ways of expressing new

The approach adopted is communicative and provides students with many opportunities to interact and use the language in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

#### German Unit 2

8cp; 2nd semester, 6hpw; prerequisite: German Unit 1 or equivalent

German 2 is the second in a series of four units designed to provide students with no prior knowledge of the German language with basic survival skills in German language and culture, and the ability to undertake Incountry Study in Germany.

By the end of the unit, students are expected to have achieved 'minimum survival proficiency' in speaking, listening, reading and writing and be able to satisfy immediate communication needs and minimum courtesy requirements required in basic social interaction. Students also develop an understanding of the sociocultural contexts in which the language is used and further communication strategies.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in a meaningful way in various social and cultural contexts. Audiovisual equipment and computers may be used to facilitate learning.

#### German Unit 3

8cp; 1st semester, 6hpw; prerequisite: German Unit 2, HSC German, or equivalent

German 3 is the third in a series of four units for students with no prior knowledge of the German language, or the first in a series of four units for students who have successfully completed HSC 2/3-unit German, or its equivalent. It provides students with basic survival skills in German language and culture and the ability to undertake In-country Study in Germany.

By the end of the unit, students are expected to have achieved the communicative competence in speaking, listening, reading and writing skills to be able to satisfy all 'survival' needs and limited social needs. They are also expected to have developed an awareness of the various social and cultural contexts in which the language is used. In this unit, students also develop the ability to understand the general content of magazine and newspaper articles.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

#### German Unit 4

8cp; 2nd semester, 6hpw; prerequisite: German Unit 3 or equivalent

German 4 is the fourth in a series of four units for students with no prior knowledge of the German language, or the second in a series of four units for students who have successfully completed German 3, HSC 2/3-unit German, or its equivalent. It provides them with basic survival skills in German language and culture and the ability to undertake Incountry Study in Germany.

By the end of the unit, students are expected to have begun to develop the communication skills required to satisfy limited routine social and work demands related to the situation covered. Students would also have developed an awareness of the various social and cultural contexts in which the language is used. Students learn to express opinions, discuss education, entertainment and travel, and develop the language skills and background knowledge required to find accommodation.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

### German Unit 5

8cp; 1st semester, 6hpw; prerequisite: German Unit 4 or equivalent

German 5 is the third in a series of four units designed to provide students who have successfully completed German 4, HSC 2/3-unit German, or its equivalent, with the ability to consolidate and extend their knowledge during a period of In-country Study in Germany.

By the end of the unit, students are expected to have achieved the communicative competence required to satisfy routine social demands and limited work requirements in speaking, listening, reading and writing skills. Students would have developed an awareness of the various social and cultural contexts in which the language is used. Students learn to communicate in German when comparing lifestyles, university life and education and to practice interview techniques in preparation for In-country Study.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in a meaningful way in various social and cultural contexts. There are discussions and debates on set topics. Audiovisual equipment and computers are used to facilitate learning.

### German Unit 6

8cp; 2nd semester, 6hpw; prerequisite: German 'Unit 5 or equivalent

German 6 is the fourth in a series of four units designed to provide students who have successfully completed German 5, or its equivalent, with the ability to consolidate and extend their knowledge during a period of Incountry Study in Germany.

By the end of the unit, students are expected to have achieved the communicative competence required to speak the language with reasonable accuracy, and to be able to participate readily in limited formal and informal conversations on practical and social topics. Students are also expected to have developed the ability to read and write with sufficient accuracy to meet a limited range of social needs and limited work needs. Language focuses on topics such as the economy, class and social stratification, gender roles, religion and beliefs, and literature and the arts.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in a meaningful way in various social and cultural contexts.

There are discussions and debates on set topics. Audiovisual equipment and computers are used to facilitate learning.

# German Unit 7

4cp; 1st semester, 4hpw; prerequisite: German Unit 6

German 7 is designed to provide students who have successfully completed German 6, or its equivalent, with the ability to consolidate and extend their knowledge of the German language in preparation for a period of Incountry Study in Germany.

By the end of the unit, students are expected to be able to communicate confidently and with a high level of accuracy in German in a wide range of formal and informal conversations, and to have comprehension skills which enable them to read a wide variety of authentic materials in German. Students are expected to be able to read and write for academic and general purposes with sufficient accuracy to meet a wide range of social and academic needs.

The classroom approach provides students with opportunities to further develop their vocabulary, fluency and accuracy as they use German to respond to authentic texts and to discuss set topics. Students are required to read extensively in preparation for classroom presentations and discussions.

#### German Unit 8

4cp; 2nd semester, 4hpw; prerequisite: German Unit 7

German 8 is designed to provide students who have successfully completed German 7, or its equivalent, with the ability to consolidate and extend their knowledge of German in preparation for a period of In-country Study in Germany.

By the end of the unit, students are expected to have achieved a high level of proficiency and speak the language with a high level of accuracy. They are able to participate in a wide range of formal, informal and academic conversations on topics such as the economy, gender roles, social life, politics and current issues. They also learn about academic writing and develop academic skills such as note taking and essay writing in German. They are expected to read and write academic and general texts with a high degree of accuracy to meet a wide range of social and academic needs.

The classroom approach provides students with opportunities to further develop their vocabulary, fluency and accuracy as they use German to discuss set topics and to respond to authentic texts, television programs and films. Students are required to read extensively in preparation for classroom presentations and discussions.

# 971710, 972710, 973710, 974710 Greek

Greek is offered to UTS students through arrangements with other universities. Students are placed in classes appropriate to their level of competence. The program focuses on furthering writing and oral skills in contemporary Greek and learning about Hellenic literature, society and culture.

# 971311, 972311, 973311, 974311 Indonesian Language and Culture

Indonesian is offered to UTS students through arrangements with other universities. Students are placed in classes appropriate to their level of competence. The aim of the Indonesian language program is to give students a good working knowledge of modern written and spoken Indonesian and to enable them to express themselves in the language correctly and with reasonable clarity.

# 971431, 972431, 973431, 974431 Italian Language and Culture

Italian is a language program for students who are either complete beginners or who first learnt Italian at school. There are two points of entry: the first for complete beginners; the second for students who have successfully completed HSC 2/3-unit Italian, or its equivalent. Students in the combined degree take four units in the program, either units 1-4 (beginners) or 3–6 (post-HSC), determined by their point of entry. Students with a language competence in Italian that is higher than the program may be able to undertake further studies in Italian at other universities in the Sydney area through arrangements made by the Institute.

The language program covers a broad range of communicative situations relevant to daily interaction in Italian. The focus is on the development of speaking, listening, reading and writing skills appropriate to the situations that students are likely to encounter. Vocabulary and grammar cover a range of themes and are presented using written and audiovisual materials.

Upon successful completion of the program, students are expected to be able to communicate about familiar things, events and opinions and to have developed skills and strategies for continuing their learning of the language in Italian-speaking environments. Those students with prior knowledge of Italian, who are entering the program at a higher level, are expected to communicate comfortably on a wide range of topics, with the ability to adjust their language according to social variables such as formality, age and status. Each unit is covered in 13 weeks in one semester. There are six hours of language classes per week.

#### Italian Unit 1

8cp; 1st semester, 6hpw; prerequisite: nil

Italian 1 is the first in a series of four units designed to provide students who have no prior knowledge of the Italian language with basic survival skills in Italian language and culture, and the ability to undertake Incountry Study in Italy.

By the end of the unit, students are expected to have achieved 'minimum creative proficiency' and be able to satisfy immediate communication needs required in basic social interaction, using expressions and phrases they have learnt. The program allows for the development of listening, speaking, reading and writing skills, and an understanding of the sociocultural contexts in which the language is used. In particular, students gain an awareness of the background of Italianspeaking countries. Students also develop strategies for predicting the meaning of new expressions and anticipating ways of expressing new meanings.

The approach adopted is communicative and provides students with many opportunities to interact and use the language in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

### Italian Unit 2

8cp; 2nd semester, 6hpw; prerequisite: Italian Unit 1 or equivalent

Italian 2 is the second in a series of four units designed to provide students who have no prior knowledge of the Italian language with basic survival skills in Italian language and culture, and the ability to undertake Incountry Study in Italy.

By the end of the unit, students are expected to have achieved 'basic transactional proficiency' in speaking, listening, reading and writing, and be able to satisfy immediate communication needs and minimum courtesy requirements for basic social interaction. Students also develop an understanding of the sociocultural contexts in which the language is used and further communication strategies.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in a meaningful way in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

#### Italian Unit 3

8cp; 1st semester, 6hpw; prerequisite: Italian Unit 2, HSC Italian, or equivalent

Italian 3 is the third in a series of four units for students with no prior knowledge of the Italian language, or the first in a series of four units for students who have successfully completed HSC 2/3-unit Italian, or its equivalent. It provides them with basic survival skills in Italian language and culture and the ability to undertake In-country Study in Italy.

By the end of the unit, students are expected to have achieved the communicative competence in speaking, listening, reading and writing skills to be able to satisfy all 'survival' needs and limited social needs. They are also expected to have developed an awareness of the various social and cultural contexts in which the language is used. In this unit, students also develop the ability to understand the general content of magazine and newspaper articles.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

### Italian Unit 4

8cp; 2nd semester, 6hpw; prerequisite: Italian Unit 3 or equivalent

Italian 4 is the fourth in a series of four units for students with no prior knowledge of Italian language, or the second in a series of four units for students who have successfully completed Italian 3, HSC 2/3-unit Italian, or its equivalent. It provides them with basic survival skills in Italian language and culture and the ability to undertake In-country Study in Italy.

By the end of the unit, students are expected to have begun to develop the communication skills required to satisfy limited routine social and work demands related to the situation covered. Students would also have developed an awareness of the various social and cultural contexts in which the language is used. Students learn to express opinions, discuss education, entertainment and travel, and develop the language skills and background knowledge required e.g. to find accommodation.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

#### Italian Unit 5

8cp; 1st semester, 6hpw; prerequisite: Italian Unit 4 or equivalent

Italian 5 is the third in a series of four units designed to provide students who have successfully completed Italian 4, HSC 2/3-unit Italian, or its equivalent, with the ability to consolidate and extend their knowledge of the Italian language and culture during a period of In-country Study in Italy.

By the end of the unit, students are expected to have achieved the communicative competence required to satisfy routine social demands and limited work requirements in speaking, listening, reading and writing skills. They are also expected to have developed an awareness of the various social and cultural contexts in which the language is used. Students learn to communicate in Italian while comparing lifestyles, university life and education and practice interview techniques in preparation for In-country Study.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in a meaningful way in various social and cultural contexts. There are discussions and debates on set topics. Audiovisual equipment and computers are used to facilitate learning.

#### Italian Unit 6

8cp; 2nd semester, 6hpw; prerequisite: Italian Unit 5 or equivalent

Italian 6 is the fourth in a series of four units designed to provide students who have successfully completed Italian 5, or its equivalent, with the ability to consolidate and extend their knowledge of the Italian language and culture during a period of In-country Study in Italy.

By the end of the unit, students are expected to have achieved the communicative competence required to speak the language with sufficient accuracy for limited formal and informal conversations on practical and social topics. Students are also expected to be able to read and write with sufficient accuracy to meet a limited range of social needs and limited work needs. Language focuses on topics such as the economy, class and social stratification, gender roles, religion and beliefs, literature and the arts.

The approach adopted is communicative and provides many opportunities for students to interact and use the language in a meaningful way in various social and cultural contexts. There are discussions and debates on set topics. Audiovisual equipment and computers are used to facilitate learning.

# 971211, 972211, 973211, 974211 Japanese Language and Culture

This program comprises six units offered in two main streams: beginners and post-HSC. There are two main points of entry into the Japanese Language and Culture program. Students with no prior experience of the language enter the program at Japanese 1, while students with HSC-level Japanese or equivalent are required to enter the program at the post-HSC level (Japanese 3).

The program enables students to develop the skills to communicate in everyday situations in order to live, study and work in a Japanesespeaking environment; or interact with Japanese people in a social, university or work-related context. The emphasis is on the development of communication skills, particularly speaking and listening, with an increased focus on reading and writing skills at the post-HSC level. The study of sociocultural aspects of Japan is an integrated and essential part of the language program.

# Japanese Unit 1

8cp; 6hpw; prerequisite: nil

This is the first subject in the Japanese Language and Culture program. It is designed as the first step in providing students who have no prior knowledge of Japanese with the basic language survival skills and sociocultural awareness to enable them to undertake In-country Study in Japan.

While focusing primarily on the development of speaking and listening skills, this subject also provides a working knowledge of the hiragana and katakana scripts and approximately 50 kanji. Sociocultural aspects are integrated into the program as they relate to the need for students to learn to use the language appropriately in various social and cultural contexts.

### Japanese Unit 2

8cp; 6hpw; prerequisite: Japanese Unit 1

This is the second in a series of four units for students with no prior knowledge of the Japanese language. By the completion of this unit, the student should be able to demonstrate the language and sociocultural skills required to establish and maintain relationships in social or work-related spheres, and fulfil basic survival needs in a Japanesespeaking environment.

Emphasis is given to the development of speaking and listening skills, but students also further develop their reading and writing skills. Besides kana, they will know approximately 150 kanji by the end of the unit. Sociocultural aspects are integrated into the program as they relate to the need for students to learn to use the language appropriately in various social and cultural contexts.

### Japanese Unit 3

8cp; 6hpw; prerequisite: Japanese Unit 2 or HSC Japanese

Japanese 3 is the third in a series of four units for students with no prior knowledge of the Japanese language, or the first in a series of four units for students who have successfully completed HSC-level Japanese. By the end of the unit, students are expected to have achieved 'survival proficiency' in the use of the language, and be able to satisfy survival needs and limited social demands relating to topics and situations covered.

At the end of the subject, students are expected to have developed their listening, speaking, reading and writing skills to a level where they can communicate in everyday situations, and are able to demonstrate an awareness of the social implications of language and behaviour.

It is expected that students know approximately 250 *kanji* by the end of the unit.

### Japanese Unit 4

8cp; 6hpw; prerequisite: Japanese Unit 3

Japanese 4 is the fourth in a series of four units for beginners. It is also the second in a series of four units for those who have successfully completed HSC-level Japanese, or its equivalent, and aim to further develop Japanese listening, speaking, reading and writing skills. By the end of the unit, students are expected to have achieved 'limited social proficiency', and be able to interact in limited social, study and work contexts with Japanese speakers in Japan or Australia. They will also have learnt approximately 350 kanji.

### Japanese Unit 5

8cp; 6hpw; prerequisite: Japanese Unit 4

Japanese 5 is the third in a series of four units in the post-HSC series, and is for those who have successfully completed either Japanese 4, or its equivalent, and aim to further develop listening, speaking, reading, writing and cultural skills. By the end of the unit, students are expected to have achieved 'limited social proficiency', and be able to satisfy routine social and limited work demands. The emphasis is on the development of the language and of the cultural sensitivity required in both formal and informal situations. By the end of the subject, students are expected to be able to read and write approximately 470 kanji.

### Japanese Unit 6

8cp; 6hpw; prerequisite: Japanese Unit 5

Japanese 6 is the fourth in a series of four units in the post-HSC series and is for those who have successfully completed either Japanese 5, or its equivalent. By the end of this subject, students are expected to have achieved 'minimal vocational proficiency', and be able to speak the language with sufficient structural accuracy and vocabulary to participate effectively in many formal and informal conversations on practical, social and limited vocational topics. The emphasis is on the development of the language and of the cultural sensitivity required in both formal and informal situations. By the end of the subject, students should be able to read simple prose and read and write approximately 600 kanji.

### Japanese Unit 7

8cp; 4hpw; prerequisite: Japanese Unit 6

Japanese 7 is designed to provide students who have successfully completed Japanese 6 or its equivalent with the ability to consolidate and extend their knowledge of Japanese.

Students are expected to continue to develop communication skills required to function effectively in academic and vocational contexts in Japan. In the first half of the unit, the focus is on the development of academic reading and writing skills and the acquisition of vocabulary based on reading, understanding and discussing various topics and viewpoints on the interrelationship between Japanese language and culture. In the second half of the unit, the focus is on workplace communication and the comprehension of university lectures in Japan, with an emphasis on the development of listening and notetaking skills. In terms of literacy development, students will be expected to be able to recognise and pronounce the kanji introduced in the prescribed texts, to have increased their pace of reading as a result of regular and habitual reading and improved dictionary skills, and to be able to write an increasing number of kanji as required for specific academic tasks.

# 971331, 972331, 973331, 974331 Malaysian Language and Culture

Malaysian is offered to UTS students through arrangements with other universities. Students are placed in classes appropriate to their level of competence. The aim of the Malaysian language program is to give students a good working knowledge of modern written and spoken Malaysian and to enable them to express themselves in the language correctly and with reasonable clarity.

# 971734, 972734, 973734, 974734 Russian

Russian is offered to UTS students through an arrangement with other universities. Students are placed in classes appropriate to their level of competence. The aim of the Russian language program is to give students a good working knowledge of modern written and spoken Russian and to enable them to express themselves in the language correctly and with reasonable clarity.

# 971501, 972501, 973501, 974501 Spanish Language and Culture

This language program is designed for students who are either complete beginners or who first learnt Spanish at school in Australia. There are two points of entry: the first for complete beginners and the second for students who have successfully completed HSC-level Spanish or its equivalent. Students in the combined degree take four units in the program, either units 1-4 (beginners) or 3-6 (post-HSC), determined by their point of entry.

The language program covers a broad range of communicative situations relevant to daily interaction in Spanish. The focus is on the development of speaking, listening, reading and writing skills appropriate to the situations that students are likely to encounter. Vocabulary and grammar are taught using written and audiovisual materials that cover a range of themes and situations.

Upon successful completion of the program, students are expected to be able to communicate about familiar things, events and opinions, and to have developed skills and strategies for continuing their learning of the language in Spanish-speaking countries. Those students with prior knowledge of Spanish, who enter the program at a higher level, are expected to be able to communicate comfortably on a wide range of themes, with the ability to adjust their language according to social variables such as formality, age and status. Each subject is covered in 13 weeks in one semester. There are six hours of language classes per week.

### Spanish Unit 1

8cp; 1st semester, 6hpw; prerequisite: nil

Spanish 1 is the first in a series of four units designed to provide students who have no prior knowledge of the Spanish language with basic survival skills in the language and culture, and the ability to undertake Incountry Study in Latin America or Spain.

By the end of the subject, students are expected to have achieved 'elementary proficiency' and be able to satisfy immediate communication needs required in basic social interaction, using expressions and phrases they have learnt. The program allows for the development of listening, speaking, reading and writing skills, and an understanding of the sociocultural contexts in which the language is used. Students gain, in particular, an awareness of the background of Hispanic countries. Students also develop strategies for predicting the meaning of new expressions and anticipating ways they might express new meanings.

Spanish 1 consists of 78 hours of classroom instruction. The approach adopted is communicative and provides students with many opportunities to interact and use the language in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

## Spanish Unit 2

8cp; 2nd semester, 6hpw; prerequisite: Spanish Unit 1

Spanish 2 is the second in a series of four units designed to provide students who have no prior knowledge of the Spanish language with basic survival skills in the language and culture, and the ability to undertake Incountry Study in Latin America or Spain.

By the end of the subject, students are expected to have achieved 'minimum survival proficiency' in speaking, listening, reading and writing, and be able to satisfy immediate communication needs and minimum courtesy requirements in basic social interactions. Students also develop an understanding of the sociocultural contexts in which the language is used and further communication strategies. Spanish 2 consists of 78 hours of classroom instruction. The approach adopted is communicative and provides many opportunities for students to interact and use the language in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

### Spanish Unit 3

8cp; 1st semester, 6hpw; prerequisite: Spanish Unit 2 or HSC Spanish

Spanish 3 is the third in a series of four units for students with no prior knowledge of the Spanish language, or the first in a series of four units for students who have successfully completed HSC-level Spanish, or its equivalent. It provides students with basic survival skills in the language and culture, and the ability to undertake In-country Study in Latin America or Spain.

By the end of the unit, students are expected to have achieved a communicative competence in speaking, listening, reading and writing skills in order to be able to satisfy all 'survival' needs and limited social needs. They are also expected to have developed an awareness of the various social and cultural contexts in which the language is used. In this unit, students also develop the ability to understand the general content of magazine and newspaper articles.

Spanish 3 consists of 78 hours of classroom instruction. The approach adopted is communicative and provides many opportunities for students to interact and use the language in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

#### Spanish Unit 4

8cp; 2nd semester, 6hpw; prerequisite: Spanish Unit 3

Spanish 4 is the fourth in a series of four units for students with no prior knowledge of the Spanish language, or the second in a series of four units for students who have successfully completed Spanish 3 and HSC-level Spanish, or its equivalent. It provides students with basic survival skills in the language and culture, and the ability to undertake Incountry Study in Latin America or Spain.

By the end of the unit, students are expected to have begun to develop the communication skills required to satisfy limited routine social and work demands. They are also expected to have developed an awareness of the various social and cultural contexts in which the language is used. In this subject, students learn to express opinions, discuss education, entertainment and travel, and develop the language skills and background knowledge required, e.g. to find accommodation.

Spanish 4 consist of 78 hours of classroom instruction. The approach adopted is communicative and provides many opportunities for students to interact and use the language in various social and cultural contexts. Audiovisual equipment and computers are used to facilitate learning.

#### Spanish Unit 5

8cp; 1st semester, 6hpw; prerequisite: Spanish Unit 4

Spanish 5 is the third in a series of four units designed to provide students who have successfully completed Spanish 4 and HSC-level Spanish, or its equivalent, with the ability to consolidate and extend their knowledge during a period of In-country Study in Latin America or Spain.

By the end of the unit, students are expected to have achieved communicative competence in speaking, listening, reading and writing, and to be able to satisfy routine social demands and limited work requirements. They would have developed an awareness of the various social and cultural contexts in which the language is used. Students learn to communicate in Spanish to compare lifestyles, university life and education, and practise interview techniques in preparation for Incountry Study.

Spanish 5 consists of 78 hours of classroom instruction. The approach adopted is communicative and provides many opportunities for

students to interact and use the language in various social and cultural contexts. There are discussions and debates on set topics. Audiovisual equipment and computers are used to facilitate learning.

#### Spanish Unit 6

8cp; 2nd semester, 6hpw; prerequisite: Spanish Unit 5

Spanish 6 is the fourth in a series of four units designed to provide students who have successfully completed Spanish 5 and HSC-level Spanish, or its equivalent, with the ability to consolidate and extend their knowledge during a period of In-country Study in Latin America or Spain.

By the end of the unit, students are expected to be able to speak the language with sufficient accuracy, and to participate in limited formal and informal conversations on practical and social topics. Students are also expected to be able to read and write with sufficient accuracy to meet a limited range of social and work needs. Language focuses on topics such as the economy, class and social stratification, gender roles, religion and beliefs, literature and the arts.

Spanish 6 consists of 78 hours of classroom instruction. The approach adopted is communicative and provides many opportunities for students to interact and use the language in various social and cultural contexts. There are discussions and debates on set topics. Audiovisual equipment and computers are used to facilitate learning.

#### Spanish Unit 7

8cp; 1st semester, 6hpw; prerequisite: Spanish

Spanish 7 is designed to provide students who have successfully completed Spanish 6, or its equivalent, with the ability to consolidate and extend their knowledge during a period of Incountry Study in Latin America or Spain.

By the end of the unit students are expected to be able to communicate confidently in Spanish within a wide range of everyday situations, and to have further improved their comprehension skills by reading a wide variety of authentic materials in Spanish. Students are also expected to have extended their knowledge of today's world-wide Hispanic society and culture and to have acquired the vocabulary and structures necessary to be able to discuss and write about the cultural context of texts with considerable accuracy.

The approach provides students with opportunities to further develop their vocabulary, fluency and accuracy as they use the language to respond to authentic texts and to discuss set topics. Students are required to read extensively during self-study periods in preparation for classroom presentation and discussion.

#### Spanish Unit 8

8cp; 2nd semester, 6hpw; prerequisite: Spanish

Spanish 8 is designed to provide students who have successfully completed Spanish 7, or its equivalent, with a higher level of communicative and cultural competence, and the ability to consolidate and extend their knowledge during a period of In-country Study in Latin America or Spain.

By the end of the unit, students are expected to have further developed the linguistic and cultural awareness skills required to engage appropriately in a range of formal and informal discussions at a social and professional level on topics such as employment, job applications, academic presentations and university life, social welfare, human rights, leisure and sport, the media, family roles and relationships, etiquette, and immediate concerns such as arranging accommodation and banking.

The approach provides students with opportunities to further develop their vocabulary, fluency and accuracy in speaking and writing as they use the language in response to authentic texts such as newspaper, and magazine articles and television programs in Spanish. Students are required to read extensively during self-study periods in preparation for classroom presentations, debates and discussions.

## 971320, 972320, 973320, 974320 Thai

Thai is offered to UTS students through the language program offered jointly by the University of Sydney and Macquarie University. The program is designed to allow complete beginners in Thai to reach a survival level that will allow them to continue their studies in Thailand. If student numbers permit, classes will be available at UTS campuses.

## **Contemporary Society** Subjects

## 976111

#### Contemporary China

8cp; 2nd semester, 4hpw

This subject examines the contours and dynamics of social, political and economic change in the People's Republic of China since the death of Mao Zedong and the start of the reform era. A central theme is the emerging relationship between state and society in a state socialist system in the process of change and reform. It is an introductory subject that requires no prior knowledge of the People's Republic of China or of any Chinese language.

#### 976401

#### Contemporary Europe

8cp; 2nd semester, 4hpw

This subject is an introduction and an overview laying the groundwork for the study of contemporary Europe and individual countries within Europe. It aims to provide students with a basic understanding of contemporary European history, politics, society and culture, as well as national convergences and divergences in these areas. In particular, it aims to provide students with the critical skills that allow them to identify major contemporary issues in the European region of the world, and beyond it. Insights are gained into Europe's national and regional diversity and heterogeneity in national, continental and international contexts. This gives students the opportunity to develop a critical appreciation for societies outside Australia. Students are exposed to ideas that challenge Eurocentric modes of thinking, and that also draw attention to the legacies of imperialism, colonisation, and transnational capitalism and their impact on contemporary European peoples, wherever they may reside. Students develop critical thinking skills relevant to the multidisciplinary nature of the subject.

## 976211

#### Contemporary Japan

8cp; 2nd semester, 4hpw

This subject provides an introduction to the dynamics of political, social and economic systems in modern Japan. Central themes are the causes and consequences of social change and continuity in the context of Japan's emergence as an economic superpower. In the process, it offers a general introduction to Japan's culture. This subject requires no prior knowledge of Japan or of Japanese.

#### 976301

## Contemporary South-East Asia

8cp; 2nd semester, 4hpw

This subject provides an introduction to the countries of Indonesia, Malaysia, Thailand and Vietnam. The themes of modernity and identity are examined at a political–economic level and also at an individual level. Issues which are explored include: migration patterns in the context of regional interrelationships; increasing urbanisation; legacies of colonialism; the commodification of culture and the growing impact of tourism; new creative forms in the visual, literary and performing arts; the beliefs about and behaviour of women in the region; and ways in which religion and social practice intersect.

#### 976501

#### Contemporary Latin America

8cp; 2nd semester, 4hpw

Latin America has been a crucible for social, political and economic change in the 19th and 20th centuries. Intense struggles for nationhood, democracy, economic modernisation and secularisation have all resonated in the countries of Latin America. During the middle of the 20th century, Latin America's primary concerns were focused on national selfdetermination, inward industrialisation and populist authoritarian efforts to legitimise elite rule. In the late 20th century, the emphasis shifted towards economic growth, internationalisation, and pressures to improve the capacity and accountability of governments. The unit aims to provide students with the historical background, cultural awareness and analytic skills to interpret everyday social, political and economic reality during their period of In-country Study. The subject requires no prior knowledge of Latin America or of Spanish.

#### 50140

### Comparative Social Change (U/G)

8cp

Disciplinary Strand – Social, Political and Historical Studies – 200 level

Compulsory subject in the combined degrees with International Studies. This subject is for undergraduate students only. Graduate students refer to 50175.

The aim of this subject is to provide students with an understanding of the processes of modernisation and social change in a comparative context using case studies in countries of Western Europe, Latin America, East and South-East Asia. The lectures highlight a number of key issues, e.g. whether the processes of social change are universal or specific; the consequences of modernisation in and for the economy, politics, society, culture and ideology of non-Western societies; and whether the established Eurocentric analytical models are still useful in understanding the modern world. It is emphasised that differing interpretations of modernisation flow from various relations of power which lead to a multiplicity of views on its meanings and significance.

#### 50175

#### Comparative Social Change (P/G)

8ср

The aim of this subject is to provide students with an understanding of the processes of modernisation and social change in a comparative context using case studies in countries of Western Europe, Latin America, East and South-East Asia. The lectures highlight a number of key issues, e.g. whether the processes of social change are universal or specific; the consequences of modernisation in and for the economy, politics, society, culture and ideology of non-Western societies and whether the established Eurocentric analytical models are still useful in understanding the modern world. It is emphasised that differing interpretations of modernisation flow from various relations of power, which lead to a multiplicity of views on its meanings and significance.

## 977xxx

## In-country Study 1

24cp; prerequisite: completion of relevant subjects appropriate to the student's International Studies major.

In-country Study subjects are only available to students doing the Bachelor of Arts in International Studies.

As part of the International Studies combined degrees, students spend two semesters of Incountry Study at a university or institution of higher education overseas. The location is determined by the student's International Studies major.

In the International Studies program, students focus on one of the following countries or majors: Chile, China, France, Germany, Indonesia, Italy, Japan, Malaysia, Mexico, Spain and Thailand. There is also a Heritage major that permits students with previous exposure to a language and culture to continue their study in countries such as Croatia, Greece, Hong Kong, Korea, Poland, Russia, Taiwan, the Phillipines, Vietnam and others.

Australia and the Asia-Pacific is only available as a major to international students. International students may access one of the other majors offered provided that the country they choose as their major is able to grant them a visa to study there. This needs to be determined prior to commencing subjects within the International Studies major. If a visa cannot be granted, then it will not be possible to undertake the chosen major.

#### 978xxx

### In-country Study 2

24cp; prerequisites: 977xxx In-country Study 1 For subject description, see 977xxx In-Country Study 1.

# NUMERICAL LIST OF SUBJECTS

The following tables indicate the number and name of each subject, the semester or semesters in which it is offered, the credit-point value, and the prerequisites and corequisites (indicated by c). The letters A and S refer to the Autumn and Spring semesters respectively, and Y is used to indicate a year-long subject. All prerequisites are in terms of current undergraduate offerings. See the Subject Descriptions section for details of other possible prerequisites.

In the case of some elective subjects, no 'Semester offered' is shown. Elective offerings will vary according to demand.

## Undergraduate

## Core subjects in Bachelor of Science in Information Technology

Subject number	Subject name	Semester offered	Credit points	Prerequisites
31465	Object-oriented Programming	tba	6	Nil
31466	Principles of Distributed Computing	tba	6	Nil
31467	Networking 1	tba	6	Nil
31468	Information, Classification and Control	tba	6	Nil
31469	Object-oriented Design	tba	6	31465
31470	Distributed Computing Architecture	tba	6	31465, 31466
31471	Networking 2	tba	6	31467
31472	Introduction to Collaborative Systems	tba	6	Nil
31473	Data Structures and Procedural Programming	tba	6	31469
31474	Database Fundamentals	tba	6	Nil
31475	Requirements Engineering	tba	6	31472
31476	Systems Development Project	tba	12	31474, 31475
31478	Project Management and Quality Assurance	tba	6	31476
31479	Information Technology Professional and Society	tba	6	31476
31480	Strategic Information Technology Planning Project	tba	6	31478

## Core subjects in Diploma of Information Technology Professional Practice

Subject number	Subjecti	Semester offered	CP	Prerequisites
31136	Preparation and Review of IT Experience	A, S	6	31137c
31137	IT Experience 1	A, S	0	tba
31138	Review of IT Experience	A, S	6	31136, 31137, 31139c
31139	IT Experience 2	A, S	0	31136, 31137, 31138c

## Proposed sub-major subjects for Bachelor of Science in Information Technology

The following list of proposed IT sub-major subjects will be first offered in 2003.

31xxx Adv	vanced Database Concepts and Techniques		
		6	
31xxx Cor	mputer Graphics Project	6	
31xxx Dat	ta Mining and Knowledge Discovery	6	
31xxx Dat	tabase Programming and Administration	6	
	ital Media Programming and mmunication	6	
31xxx Dig	jtal Multimedia	6	
31xxx Dis	tributed Virtual Worlds	6	
31xxx Inte	ernetwork Design	6	
31xxx 15 [	Development Approaches	6	
31xxx 15 7	Testing	6	
31xxx IS 7	Theory and Research Methods	6	
31xxx IT 0	Operations Management	6	
31xxx Mai	naging Client/Vendor Relations	6	
31xxx Mul	ltimedia Data Mining	6	
31xxx Net	twork Management	6	
31xxx Net	twork Security	6	
31xxx Qua	ality Assurance and Process Improvement	6	
31xxx Sof	tware Architecture	6 .	
31xxx Sof	tware Engineering Fundamentals	6	
31xxx Sof	tware Engineering Processes	6	
31xxx Sof	tware Metrics and Testing	6	
31xxx VLA	ANs and WANs	6	
31xxx Wir	eless Communications	. 6	
31xxx Wir	eless Internet Programming	6	
31xxx Wir	eless LANs	6	
31xxx Wir	eless Solutions in Business	6	
95556 <b>T</b> ec	hnology, Society and Change	6	

## Core subjects in Bachelor of Science (Honours) in Information Technology

Subject number	Subject name	Semester offered	CP.	Prerequisites
31481	Honours Project A	A	6	Nil
31482	Honours Project B	S	6	31481, 32931

## 150 Numerical list of subjects

## Core subjects in Bachelor of Information Technology – proposed program for 2002

Subject number	Subject	Semester offered	CP	Prerequisites
31465	Object-oriented Programming	tba	6	Nil
31466	Principles of Distributed Computing	tba	6	Nil
31467	Networking 1	tba	6	Nil
31468	Information, Classification and Control	tba	6	Nil
31469	Object-oriented Design	tba	6	31465
31470	Distributed Computing Architecture	tba	6	31465; 31466
31474	Database Fundamentals	tba	6	Nil
31475	Requirements Engineering	tba	6	31472
31476	Systems Development Project	tba	12	31474; 31475
31479	Information Technology Professional and Society	tba	6	31476
31480	Strategic Information Technology Planning Project	tba	6	31478
31489	Industry Study 1	tba	6	one semester of BinfTech
31490	Industry Study 2	tba	6	four semesters of BinfTech
31491	Industry Project 1	tba	9	one semester of BinfTech
31492	Industry Project 2	tba	9	four semesters of BinfTech
31735	Information Systems and Organisation Development	tba	6	Nit
31736	Business Processes and IT Strategy	tba	6	Nil

## Core subjects in Bachelor of Information Technology - pre 2002 program

Subject number	Subject	Semester offered	ĈP:	Prerequisites
22615	Accounting Information Systems	Α	6	Nil
24108	Marketing Foundations	A	4	Nil
31414	Information Systems	A	6	Nil
31415	Principles of Software Development A	A	6	31718 c
31416	Computer Systems Architecture	Α	6	Nil
31424	Systems Modelling	\$	6	Nil
31434	Database Design	A	6	31771
31436	Systems Software and Networks	A	8	31416
31443	Distributed Databases and Client/Server Computing	S	6	31434
31444	Systems Design and Development	S	10	31434, 31436
31464	Information Technology Planning and Design	S	6	31756
31718	Contemporary Information Technology 1	A	6	Nil
31722	Commercial Programming	S	5	one semester of BinfTech
31735	Information Systems and Organisation Development	Α	6	31414 or equivalent
31736	Business Processes and IT Strategy	S	6	at least 36 credit points
31756	Project Management	Α	5	four semesters of BinfTech
31769	Contemporary Information Technology 2	S	4	five semesters of BlnfTech
31770	Industry Project 1	S	5	one semester of BinfTech
31771	Business Requirements Analysis	S	5	one semester of BinfTech
31779	Applications of Information Technology 1	S	5	one semester of BinfTech
31781	Business Systems Design	A	5	four semesters of BinfTech
31789	Applications of Information Technology 2	A	5	four semesters of BinfTech
31790	Industry Project 2	Α	5	four semesters of BinfTech

## Core subjects in Bachelor of Computing

Subject number	Subject name	⁽ Semestér ₍ öffered	CP	Prerequisites
22615	Accounting Information Systems	A,S	6	Nil
31414	Information Systems	A,S	6	Nil
31417	Computing Practice	A,S	6	Nil
31424	Systems Modelling	A,S	6	Nil
31425	Principles of Software Development B	A,S	6	31508
31428	Quantitative Modelling	A,S	6	31508
31429	Procedural Programming	A,S	6	31508
31434	Database Design	A,S	6	31424
31454	Project Management and the Professional	A,S	6	31511
31464	Information Technology Planning and Design	ĄS	6	31454
31507	Australian IT Industry	A,S	6	Nil
31508	Programming Fundamentals	A,S	6	Nil
31509	Computer Fundamentals	A,S	6	Nil
31510	Operating Systems	A,S	6	31509
31511	Systems Design	A,S	6	31424
31512	Networking 1	A,S	6	31509
31514	Computing Theory	A or S	6	Nil
31515	Introduction to Australian IT Industry	A,S	6	Nil
31931	Software Quality Assurance	A,S	6	31429

## 152 Numerical list of subjects

## Core subjects in Bachelor of Science in Computing Science

Subject number		Semester offered	CP	Prerequisites
22615	Accounting Information Systems	A,S	6	Nil
31136	Preparation and Review of IT Experience ²	A	6	31137c
31137	IT Experience 1 ²	Α	0	31414, 31415, 31416, 31417, 31424, 31429, 31434, 31436, 31136c
31138	Review of IT Experience ²	S	6	31136, 31137, 31139c
31139	IT Experience 2 ²	S	0	31136, 31137, 31138c
31414	Information Systems	A,S	6	Nil
31415	Principles of Software Development A	A,S	6	31417с
31416	Computer Systems Architecture	A,S ¹	6	Nil
31417	Computing Practice	A,S	6	Nil
31424	Systems Modelling	A,S	6	Nil
31425	Principles of Software Development B	A,S	6	31415
31428	Quantitative Modelling	A,S	6	Nil
31429	Procedural Programming	A,S	6	31415
31434	Database Design	A,S	6	31424
31436	Systems Software and Networks	A,S	8	31429, 31416
31444	Systems Design and Development	A,S	10	31434, 31436
31454	Project Management and the Professional	A,S	6	31444
31455	Software Development Case Study	Y	12	31444
31464	Information Technology Planning and Design	A,S	6	31428, 31436, 31444, 31454
31696	Industrial Training (F/T) ³	A	0	31414, 31415, 31416, 31417, 31424, 31429, 31434, 31436
31697	Industrial Training (F/T) ³	S	0	31696
31698	Industrial Training (P/T) ³	A,S	0	31414, 31415, 31416, 31417, 31424, 31429, 31434, 31436
31699	Industrial Training (P/T) ³	A,S	0	31698

^{1 31416} Computer Systems Architecture Spring semester is only available for repeat students.

² Post-2000 subjects.

³ The subjects 31698 Industrial Training and 31699 Industrial Training are pre-2000 subjects and must be taken for two semesters.

## Undergraduate electives

Subject number	Subject	Semester offered	CP	Prerequisites
31140	Introduction to Computer Graphics	Α	6	31425, 31429
31443	Distributed Databases and Client/Server Computing	S	6	31434
31512	Networking 1	A,S	6	31509
31513	Networking 2	A or S	6	31436 or 31512
31601	Programming for Performance	A	6	31425, 31429
31603	3D Computer Animation	S	6	31140
31605	Computer Graphics Rendering Techniques	S	6	31140
31606	Virtual Communities	A	6	Nil
31735	Information Systems and Organisation Development	S	6	Nil
31736	Business Processes and IT Strategy	S	6	31424
31743	Machine Learning	S	6	31428
31744	Case-based Reasoning	S	6	31163
31745	Knowledge-based Systems	A	6	31743 or 31744
31746	Artificial Intelligence Applications	A	6	31743 or 31744
31748	Programming on the Internet	A,S	6	31436
31749	Internet Commerce	A,S	6	Nil
31750	Intelligent Agents in Java	A	6	31748
31777	Human-Computer Interaction	S	6	31444
31778	Resources Management for IT Professionals	S	6	Nil
31860	Object-oriented Programming and C++	5	6	31424, 31429
31876	Operating Systems Facilities	A	6	31436
31902	Auditing the Computer	S	6	22615
31904	Systems Programming	A	6	31429
31916	Cognitive Modelling	A	6	Nil
31917	Commercial Programming in Cobol	S	6	31429
31919	Distributed Software Programming	S	6	31436, 31904
31921	Objectbases	A	6	31434
31922	Object-oriented Methodologies	A	6	31424
31925	Smalltalk	S	6	31415, 31424
31927	Applications Development with Visual Basic	A	6	31414, 31415 or 31429, 31424c or 31434c
31928	Applications Development with Delphi	S	6	31414, 31415 or 31429, 31424c or 31434c
31931	Software Quality Assurance	S	6	31424
31950	Networked Enterprise Design	S	6	Nil

## 154 Numerical list of subjects

## **Postgraduate**

## Master of Science in Computing subjects

Subject number	Subject	Semester offered	(CP) old	Prerequisites
32106	Object-oriented Process	S	6	32536
32108	Applications of Artificial Intelligence	S	6	Nil
32115	Requirements Engineering Research and Practice	A	6	A good understanding of Software Development Process
32204	Advanced Data Management	A	6	Nil
32208	Information Processing Strategy	S	6	Nil
32510	Principles of Object-oriented Programming in C++	S	6	32106
32517	Commerce on Internet	A, S	6	Nil
32531	Global Information Systems	A, S	6	Nil
32532	Conducting Business Electronically	A, S	6	Nil
32533	Networking Communities	A, S	6	Nil
32534	Knowledge Management	A, S	6	Nil
32535	Databases in Distributed Environments	S	6	Nil
32536	Object-oriented Modelling	Α	6	Nil
32541	Project Management	A, S	6	Nil
32545	Multi-agent Systems	S	6	Nil
32546	Business Process Engineering	A	6	Nit
32902	Recent Advances in Information Systems	S	6	Nil
32931	Information Technology Research Methods	A, S	6	to be undertaken in final year of study
32932	Project A1	A, S	6	32391
32933	Project B1	A, S	6	32932
32934	Project B2	A, S	12	32932

## Core subjects in the Information Technology Management Program

Subject number	Subject name	Semester offered	CP* 🕴	Prerequisites
21788	Effective People Management	Α	6	Nil
21789	Contemporary Management Practices	S	6	Nil
21806	Managing Organisational Change	A	6	Nil
21808	Strategic Business Management	S	6	Grad Cert InfTechM, 21806
32601	Advanced Project Management	Α	6	Nil
32930	Information Technology Management Research Methods	A,S	6	to be undertaken in final year of study
32932	Project A1	A, S	6	32930
32933	Project B1	A, S	6	32932
32934	Project B2	A, S	12	32932

## Elective subjects in the Information Technology Management Program

Subject number		Semester. offered	CP	Prerequisites
22746	Managerial Accounting	tba	6	Nil
22747	Accounting for Managerial Decisions	tba	6	Nil
24704	Managing Client Relations	S	6	Nil
25705	Financial Modeling and Forecasting	tba	6	tba
25742	Financial Management	tba	6	Nil
32604	Systems Integration	S	6	32601
32702	Contemporary Telecommunications	S	6	Nil
32703	Information Technology Strategy	S	6	Nil
32704	Strategic IT Contract Management	S	6	GradCert InfTechM

## Internetworking Program subjects

Subject number	Subject name	Semester offered	CP	Prerequisites
32009	Advanced Routing Principles	A, S	6	325211
32010	Wide Area Network Implementation	A, S	6	32521²
32011	Multilayer Switched Networks	A, S	6	32521
32516	Internet Programming	A, S	6	Nil
32520	UNIX Systems Administration	A	6	Nil
32521	WANs and VLANs	A, S	6	32524
32523	Operating Systems for Internetworking	A	6	Nil
32524	LANS and Routing	A, S	6	Nil
32525	Distributed Software Programming	S	6	32516
32527	Internetwork Design	A, S	6	32524
32528	Network Management	S	6	32524
32547	UNIX Systems Programming	A	6 п	nust be able to program in
32548	Network Security	A	6	to be undertaken in final year of study
32549	Advanced Internet Programming	A, S	6	32516 or equivalent
32931	Information Technology Research Methods	A, S	6	to be undertaken in final year of study
32932	Project A1	A, S	6	32931c
32933	Project B1	A, S	6	32932
32934	Project B2	A, S	12	32932

Or completion of CCNA preparation in another Cisco Networking Academy or the holding of the CCNA Industry certification and relevant industrial

Or completion of CCNA preparation in another Cisco Networking Academy or the holding of the CCNA Industry certification and relevant industrial experience plus 32009 Advanced Routing Principles.

## 156 Numerical list of subjects

## Core subjects in the e-Business Technology Program

Subject number	Subject	Semester offered	CP "	Prerequisites
24726	Economics and Marketing in the New Economy	A, S	6	32120c
32120	Evolution of the Internet	A, S	6	24726c
32122	Business to Consumer: Fundamental Principles and Tecl	nnologies A, S	6	32120
32123	Business to Business: Fundamental Principles and Tech	nnologies A, S	6	32120
32124	e-Business Project Management	tba	6	tba
32125	Enterprise Application Integration: Principles and Techn	nologies tba	6	tba
32126	Creative Design and Interactive Marketing	tba	6	tba
32931	Information Technology Research Methods	A, S	6	to be undertaken in final year of study
32932	Project A1	A, S	6	32931c

## Elective subjects in the e-Business Technology Program

Subject number	Subject name 13 1	Semester offered	ĈP.	Prerequisites
32127	Business to Consumer: Advanced Principles	tba	6	tba
32128	Business to Business: Advanced Principles	tba	6	tba
32129	Enterprise Application Integration: Advanced Principles and Technologies	tba	6	tba
32524	LANs and Routing	A, S	6	Nil
32549	Advanced Internet Programming	A, S	6	32516 or equivalent
32933	Project B1	A, S	6	32932
32934	Project B2	A, S	12	32932

# Core subjects in Graduate Certificate in Information Technology and Graduate Diploma in Information Technology

Subject number	Subject name	Semester offered	CP by	Prerequisites -
	Information Systems Foundations	tba	6	tba
31485	Systems Development	tba	6	tba
31486	Data Communications	tba	6	tba
	Database Management Systems	tba	6	tba
31488	Programming Fundamentals	tba	6	tba

## Core subjects in Master of Information Technology

Subject Subject number name	Semester offered	CP+	Prerequisites
32113 Advanced Database	tba	6	tba
32114 Advanced Data Communications	tba	6	tba

## Core subjects in the Interactive Multimedia Program

Subject number		Semester offered	CP.	Prerequisites
95563	Digital Media Development Process	tba	6	Nil
95564	Digital Media Technologies	tba	6	Nil
95565	Digital Graphics and the Still Image	tba	6	Nil
95566	Digital Information and Interaction Design	tba	6	Nil
95567	Digital Media in Social Context	tba	6	Nil
95568	Digital Sound and the Moving Image	tba	6	Nil
95569	Digital Media Project	tba	12	48cp in Master of Interactive Multimedia

## General

## **Aboriginal Studies subjects**

Subject number		Semester offered	CP	Prerequisites
015110	Aboriginal Cultures and Philosophies ¹	tba	8	Nil
015395	Aboriginal Social and Political History ¹	tba	8	Nil
015168	The Politics of Aboriginal History ¹	tba	8	015110
85208	Reconciliation Studies (UG)	tba	6	Nil
	Reconciliation Studies (UG)	tba	8	Nil
85210	Reconciliation Studies (PG)	tba	6	Nil
	Reconciliation Studies (PG)	tba	8	Nil

¹ These subjects comprise the Aboriginal Studies sub-major, but they may also be taken as electives.

## **International Studies subjects**

Subject number	Subject name	Semester (************************************	CP +	Prerequisites
97x111	Chinese Language and Culture	A or S	4x8	See Subject Descriptions
97x411	French Language and Culture	tba	4x8	See Subject Descriptions
97x421	German Language and Culture	tba	4x8	See Subject Descriptions
97x311	Indonesian Language and Culture	A or S	4x8	See Subject Descriptions
97x431	Italian Language and Culture	tba	4x8	See Subject Descriptions
97x211	Japanese Language and Culture	A or S	4x8	See Subject Descriptions
97x331	Malaysian Language and Culture	AorS	4x8	See Subject Descriptions
97x734	Russian	tba	4x8	See Subject Descriptions
97x501	Spanish Language and Culture	A or S	4x8	See Subject Descriptions
97x320	Thai	tba	4x8	See Subject Descriptions
50140	Comparative Social Change	A, S	8	Nil
976111	Contemporary China	\$	8	Nil
976401	Contemporary Europe	\$	8	Nil
976211	Contemporary Japan	\$	8	Nit
976501	Contemporary Latin America	S	8	Nil
976301	Contemporary South-East Asia	S -	8	Nil
977xxx	In-country Study 1	tba	24	See Subject Descriptions
978xxx	In-country Study 2	tba	24	See Subject Descriptions

Note: In the case of Language and Culture subjects, x indicates one of four levels of study. Details of all International Studies subjects can be found in the Subject Descriptions section in this handbook.

# **ALPHABETICAL LIST OF SUBJECTS**

Explanator y notes		Companing Fractice	31417
1 BInfTech only		Computing Theory®	31514
2 GradDipInfTech and Graduate Certificates on	ly	Conducting Business Electronically	32532
3 Elective subject		Contemporary Information Technology 1	31718
4 Honours only		Contemporary Information Technology 2 ¹	31769
5 BSc only		Contemporary Telecommunications	32702
. 6 BComp only 7 BSc BA subject		Creative Design and Interactive Marketing	32126
8 Not for BSc or BInfTech		Data Communications	31486
		Data Mining and Knowledge Discovery	31xxx
Advanced 3D Computer Animation	32543	Data Structures and Procedural	
Advanced Cognitive Modelling	32542	Programming	31473
Advanced Data Communications	32114	Database	32606
Advanced Data Management	32204	Database Design	31434
Advanced Database	32113	Database Fundamentals	31474
Advanced Database Concepts and		Database Management Systems	31487
Techniques	31xxx	Database Programming and Administration	31xxx
Advanced Image Synthesis Techniques	32544	Databases in Distributed Environments	32535
Advanced Internet Programming	32549	Digital Media Programming and	
Advanced Machine Learning	32513	Communication	31xxx
Advanced Project Management	32601	Digital Multimedia	31xxx
Advanced Routing Principles	32009	Distributed Computing Architecture	31470
Applications Development with Delphi ³	31928	Distributed Databases and Client/Server	
Applications Development with Visual Basic	⁴ 31927	Computing ^{1,3}	31443
Applications of Artificial Intelligence	32108	Distributed Software Programming	32525
Applications of Information Technology 1 ¹	31779	Distributed Software Programming ³	31919
Applications of Information Technology 2 ¹	31789	Distributed Virtual Worlds	31xxx
Artificial Intelligence Applications ³	31746	e-Business Project Management	32124
Auditing the Computer ³	31902	Enterprise Application Integration:	
Australian IT Industry ⁶	31507	Advanced Principles and Technologies	32129
Building Intelligent Agents	32530	Enterprise Application Integration:	
Business Process Engineering	32546	Principles and Technologies	32125
Business Processes and IT Strategy ^{1,3}	31736	Enterprise Wide Software Systems	32537
Business Requirements Analysis ¹	31771	Evolution of the Internet	32120
Business Systems Design ¹	31781	Global Information Systems	32531
Business to Business: Advanced Principles	32128	Honours Project A	31481
Business to Business: Fundamental	02120	Honours Project B	31482
Principles and Technologies	32123	Human-Computer Interaction in	01101
Business to Consumer: Advanced Principles		Information Systems	32509
Business to Consumer: Fundamental	0	Human-Computer Interaction ³	31777
Principles and Technologies	32122	Industrial Training (F/T) ⁵	31696
Case-based Reasoning ³	31744	Industrial Training (F/T) ⁵	31697
Cognitive Modelling ³	31916	Industrial Training (P/T) ⁵	31698
Commerce on the Internet	32517	Industrial Training (P/T) ⁵	31699
Commercial Programming in Cobol ³	31917	Industry Project 1 (5cp) ¹	31770
Commercial Programming ¹	31722	Industry Project 2 (5cp) ¹	31790
<u> </u>	31509		3149
Computer Fundamentals*	32501	Industry Project 1 (9cp) ¹	31492
Computer Graphics Project	31xxx	Industry Project 2 (9cp) ¹	31489
Computer Graphics Project Computer Graphics Rendering Techniques ³	31605	Industry Study 21	3149
Computer Graphics Rendering Techniques	31416	Industry Study 2 ¹	3146
Computer Systems Architecture ^{1,5}	21410	Information, Classification and Control	31400

Information Processing Strategy	32208	Principles of Object-oriented	20740
Information Systems	31414	Programming in C++	32510
Information Systems Foundations	31484	Principles of Object-oriented	22511
Information Systems and Organisation		Programming in Smalltalk	32511
Development	31735	Principles of Software Development A ^{1,5}	31415
Information Technology Management		Principles of Software Development B	31425
Research Methods	32930	Procedural Programming	31429
Information Technology Planning and	2444	Programming for Performance	31601
Design ^{1,5,6}	31464	Programming Fundamentals	31488
Information Technology Professional and	01.450	Programming Fundamentals	31508
Society	31479	Programming on the Internet ³	31748
Information Technology Research Methods	32931	Project A1	32932
Information Technology Strategy	32703	Project B1	32933
Intelligent Agents in Java ³	31750	Project B2	32934
Internet Commerce ³	31749	Project Management	32541
Internet Programming	32516	Project Management ²	31756
Internetwork Design	32527	Project Management and Quality Assurance	31478
Internetwork Design	31xxx	Project Management and the Professional	31454
Introduction to Australian IT Industry®	31515	Quality Assurance and Process Improvemen	
Introduction to Collaborative Systems	31472	Quantitative Modelling	31428
Introduction to Computer Graphics ³	31140	Recent Advances in Information Sytems	32902
IS Development Approaches	31xxx	Requirements Engineering	31475
IS Testing	31xxx	Requirements Engineering Research and	
IS Theory and Research Methods	31xxx	Practice	32115
IT Experience 1 ^{5,6}	31137	Resources Management for IT Professionals ³	31778
IT Experience 2 ^{5,6}	31139	Review of IT Experience ^{5,6}	31138
IT Operations Management	31xxx	Smalltalk ³	31925
Knowledge Management	32534	Software Architecture	31xxx
Knowledge-based Systems ³	31745	Software Development Case Study	31455
LANs and Routing	32524	Software Engineering Fundamentals	31xxx
Machine Learning ³	31743	Software Engineering Processes	31xxx
Managing Client/Vendor Relations	31xxx	Software Metrics and Testing	31xxx
Multi-agent Systems	32545	Software Quality Assurance ³	31931
Multimedia Data Mining	31xxx	Strategic IT Contract Management	32704
Multilayer Switched Networks	32011	Strategic Information Technology	
Network Management	32528	Planning Project	31480
Network Management	31xxx	Systems Analysis	32607
Network Security	32548	Systems Design and Development ^{1,5}	31444
Network Security	31xxx	Systems Design [®]	31511
Networked Enterprise Design ³	31950	Systems Development	31485
Networking 1	31512	Systems Development Project	31476
Networking 1	31487	Systems Integration	32604
Networking 2	31471	Systems Modelling	31424
Networking 2 ³	31513	Systems Programming ³	31904
Networking Communities	32533	Systems Software and Networks ^{1,5}	31436
Networking Fundamentals ⁸	31516	3D Computer Animation ³	31603
Objectbases ³	31921	UNIX Systems Administration	32520
Object-oriented Design	31469	UNIX Systems Programming	32547
Object-oriented Methodologies ³	31922	Virtual Communities ³	31606
Object-oriented Modelling	32536	VLANs and WANs	31xxx
Object-oriented Process	32106	WANs and VLANs	32521
Object-oriented Programming	31465	Wide Area Network Implementation	32010
Object-oriented Programming and C++4	31860	Wireless Communications	31xxx
Operating Systems	32307	Wireless Internet Programming	31xxx
Operating Systems ⁸	31510	Wireless LANs	31xxx
Operating Systems Facilities ³	31876	Wireless Solutions in Business	31xxx
Operating Systems for Internetworking	32523		
Preparation and Review of IT Experience ^{5,6}	31136		
Principles of Distributed Computing	31466		

## **SUBJECTS OFFERED BY** OTHER FACULTIES

UTHER FACULITES		Ir
Aboriginal Cultures and Philosophics ³	015110	Ir
Aboriginal Cultures and Philosophies ³ Aboriginal Social and Political History ³	015110 015395	Ir
Accounting for Business Combinations	22320	Ir
•	22610	Ir
Accounting for Insolvency Accounting for Managerial Decisions	22747	Ir
Accounting for Small Business 1	22566	In
Accounting for Small Business 2	22567	In
Accounting Information Systems	22615	In
Accounting Standards and Regulations	22420	Ita
Accounting Transactions and Business	22420	Ja
Decisions	22207	L
Administrative Law	70617	L
Advertising and Promotions Management	24210	L
Atoms, Photons and Orbits (Physics 3)	68311	L
Business Law and Ethics	79203	L
Business Marketing	24205	M
Chinese Language and Culture ⁷	97x111	M
Comparative Social Change ⁷	50140	M
Consumer Behaviour	24202	M
Contemporary China ⁷	976111	M
Contemporary Europe ²	976401	M
Contemporary Japan ⁷	976211	M
Contemporary Latin America ⁷	976501	M
Contemporary Management Practices	21789	M
Contemporary South-East Asia ⁷	976301	N
Corporate Law	70417	0
Cost Management Systems	22321	0
Criminal Law	70217	O
Design and Analysis of Experiments	35356	Pe
Digital Graphics and the Still Image	95565	Pł
Digital Information and Interaction Design	95566	Pr
Digital Media Development Process	95563	Pr
Digital Media in Social Context	95567	Q Re
Digital Media Project	95569	Re
Digital Media Technologies	95564	Re
Digital Sound and the Moving Image	95568	Re
Economics and Marketing in the New	70000	Re
Economy	24726	Re
Economics for Business	25115	Re
Effective People Management	21788	Re
Electronics	68314	Rı
Electronics and Interfacing	68514	Si
Electrotechnology and Data Analysis	68312	
Equity and Trusts	70516	Sp St
Essay Writing	59316	St
Federal Constitutional Law	70616	Sta
Financial Management	25742	Te
Financial Modelling and Forecasting	25705	Th
Foundations of Physics	68101	Vi
French Language and Culture ⁷	97x411	¥1
German Language and Culture ⁷	97x421	
Government Accounting	22206	
Greek	97x710	

In-country Study 17	977xxx
In-country Study 2 ⁷	978xxx
Indonesian Language and Culture ⁷	97x311
Industry Economics	25303
International Accounting	22240
International Business	21128
International Employment Relations	21306
International Management	21591
International Marketing	24220
Introductory Marketing Research	24309
Introductory Mathematical Methods	33401
Italian Language and Culture ⁷	97x431
Japanese Language and Culture ⁷	97x211
Law of Contract	70211
Law of Evidence	71216
Law of Tort	70311
Legal Process and History	70113
Legal Research	70105
Macroeconomic Theory and Policy	25309
Malaysian Language and Culture ⁷	97x331
Managerial Accounting	22746
Managing Client Relations	24704
Managing Organisational Change	21806
Managing People and Organisations  Managing the International Organisation	21129 21531
Marketing Foundations	
· ·	24108
Microeconomic Theory and Policy	25210
Network Optimisation	35344
Operations Research Modelling	35140
Optimisation 1	35241
Optimisation 2	35342
Personal Property	70318
Physics in Action (Physics 2)	68201
Practice and Procedure	71005
Probability and Stochastic Processes	35361
Quality Control	35355
Real Property	70317
Reconciliation Studies (PG)	85210
Reconciliation Studies (PG)	85211
Reconciliation Studies (UG)	85208
Reconciliation Studies (UG)	85209
Regression Analysis	35353
Remedies	71116
Report Writing	59317
Russian	97x734
Simulation Modelling	35363
Spanish Language and Culture	97x501
Strategic Business Management	21808
Strategic Human Resource Management	21407
Statistics 2	35252
Technology, Society and Change	95556
Thai ⁷	97x320
Vibrations, Quanta and Nucleons (Physics	4) 68411

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Due to the Faculty re-structure, the Faculty will not be able to provide information until October 2001. The details will be published on the Faculty of Information Technology website and will be available from the Faculty Information Office.

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# **INDEX**

## Α Aboriginal Cultures and Philosophies 117 Aboriginal Social and Political History 117 About the UTS Handbooks 6 Abstudy 11 Accounting for Business Combinations 119 Accounting for Insolvency 120 Accounting for Managerial Decisions 121 Accounting for Small Business 1 120 Accounting for Small Business 2 120 Accounting Information Systems 121 Accounting Standards and Regulations 120 Accounting Transactions and Business Decisions 119 Administrative Law 129 Advanced 3D Computer Animation 114 Advanced Cognitive Modelling 114 Advanced Data Communications 109 Advanced Data Management 110 Advanced Database 109 Advanced Diploma in Australian Language and Culture 88 Advanced Image Synthesis Techniques 114 Advanced Internet Programming 115 Advanced Machine Learning 111 Advanced Project Management 115 Advanced Routing Principles 108 Advertising and Promotions Management 122 Alphabetical list of subjects 158 Applications 8 International students 8 Non-award and cross-institutional study 8 Postgraduate 8 Undergraduate 8 Applications Development with Delphi 107 Applications Development with Visual Basic 107 Applications of Artificial Intelligence 109 Applications of Information Technology 1 105 Applications of Information Technology 2 106 Artificial Intelligence Applications 104 Atoms, Photons and Orbits (Physics 3) 125 Auditing the Computer 106 Australian English Language and Culture Program 89 Australian IT Industry 101 Austudy 11

#### В

Bachelor of Business 63
Bachelor of Computing (pre-2002) 53
Bachelor of Computing, Bachelor of Arts in
International Studies (pre-2002) 60
Bachelor of Computing, Diploma of Information
Technology Professional Practice (pre-2002) 53

Bachelor of Information Technology 50 Bachelor of Science (Honours) in Information Technology 56 Bachelor of Science in Computing Science (pre-2002) 47 Bachelor of Science in Computing Science, Bachelor of Arts in International Studies (pre-Bachelor of Science in Computing Science, Bachelor of Laws (pre-2002) 58 Bachelor of Science in Computing Science, Diploma of Information Technology Professional Practice (pre-2002) 47, 63 Bachelor of Science in Information Technology 38 Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice 38, 63 Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice, Bachelor of Arts in International Studies 60 Bachelor of Science in Information Technology, Diploma of Information Technology Professional Practice, Bachelor of Laws 58 Boards and committees 161 **Building Intelligent Agents 112** Business Law and Ethics 130 **Business Marketing 121 Business Process Engineering 114** Business Processes and IT Strategy 103 Business Requirements Analysis 105 Business Systems Design 105 Business to Business: Advanced Principles 110 **Business to Business: Fundamental Principles** and Technologies 109 Business to Consumer: Advanced Principles 110 **Business to Consumer: Fundamental Principles** and Technologies 109 C Campus life 19

Campus life 19
Case-based Reasoning 104
Chemistry Learning Resources Centre 14
Child care 19
Chinese Language and Culture subjects 132
Cognitive Modelling 106
Combined degrees 58
Commerce on the Internet 111
Commercial Programming 103
Commercial Programming in Cobol 107
Comparative Social Change (P/G) 146
Comparative Social Change (U/G) 146
Computer Fundamentals 101
Computer Graphics 110
Computer Graphics Rendering Techniques 102

Computer Systems Architecture 96 Computing facilities 33 Computing facilities at UTS 13 Computing Practice 96 Computing Sciences Advisory Committee 161 Computing Study Centre 14 Computing Theory 101 Conducting Business Electronically 112 Consumer Behaviour 121 Contemporary China 145 Contemporary Europe 145 Contemporary Information Technology 1 103 Contemporary Information Technology 2 105 Contemporary Japan 145	Electrotechnology and Data Analysis 125 English Language Study Skills Assistance (ELSSA) Centre 14, 88 Enterprise Application Integration: Advanced Principles and Technologies 110 Enterprise Application Integration: Principles and Technologies 110 Enterprise Wide Software Systems 113 Environment, Health, Safety and Security 17 Environmental Health and Safety 37 Equity and diversity 15 Equity and Trusts 128 Evolution of the Internet 109
Contemporary Latin America 146	F
Contemporary Management Practices 118	
Contemporary Society subjects 145	Faculty Board in Information Technology 161
Contemporary South-East Asia 146	Faculty Graduate Studies Committee 161
Contemporary Telecommunications 115	Faculty information 24
Co-op Bookshop 19	Boards and committees 161
Corporate Law 128	Computing facilities 33 Environmental health and safety 37
Cost Management Systems 120	Faculty contact details 27
Courses Postgraduate 65	Faculty Mission Statement 25
Undergraduate 38	Graduation ceremonies 37
Course Advisory Committee 161	Information for Information Technology
Creative Design and Interactive Marketing 110	students 25
CRICOS provider code 7	Message from the Dean 24
Criminal Law 127	Prizes and scholarships 34
<b>D</b>	Short courses 26 Staff list 163
D	Statement of good practice and ethics in
Data Communications 100	informal assessment 36
Data Structures and Procedural Programming 99	Study Centre 34
Database 115	Faculty Mission Statement 25
Database Design 96	Faculty research degrees 83
Database Fundamentals 99	Federal Constitutional Law 129
Database Management Systems 100	Fees and costs 9
Databases in Distributed Environments 113	Financial help 11
Dates, Principal for 2002 20	Abstudy 11 Austudy 11
Design and Analysis of Experiments 124 Digital Craphics and the Still Image 131	Youth Allowance 11
Digital Graphics and the Still Image 131 Digital Information and Interaction Design 131	Financial Management 123
Digital Media Development Process 131	Financial Modelling and Forecasting 123
Digital Media in Social Context 132	Foundations of Physics 125
Digital Media Project 132	Freedom of Information and Privacy 16
Digital Media Technologies 131	French Language and Culture subjects 134
Digital Sound and the Moving Image 132	
Distributed Computing Architecture 98 Distributed Databases and Client/Server	G
Computing 97	General information 6
Distributed Software Programming 107, 112	German Language and Culture subjects 136
Doctor of Philosophy 84	Global Information Systems 112
Double degree 63	Global Marketing Management 122
_	Government Accounting 119
E	Graduate Certificate in e-Business Technology 76
a Rusinasa Praiast Managament 100	Graduate Certificate in English for Academic
e-Business Project Management 109	Purposes 90 Graduate Certificate in Information
Economics for Business 122 Effective People Management 118	Technology 78
Electronics 126	Graduate Certificate in Information Technology
Electronics and Interfacing 126	Management 70

Graduate Certificate in Interactive
Multimedia 81
Graduate Certificate in Internetworking 74
Graduate Diploma in e-Business Technology 76
Graduate Diploma in Information Technology 78
Graduate Diploma in Information Technology
Management 70
Graduate Diploma in Interactive Multimedia 81
Graduate Diploma in Internetworking 74
Graduation ceremonies 37
Greek 139

#### н

HECS 9
Honours Project A 100
Honours Project B 100
Human-Computer Interaction 105
Human-Computer Interaction in Information
Systems 110

#### ı

In-country Study 1 147 In-country Study 2 147 Indonesian Language and Culture subjects 139 Industrial Training (F/T) 103 Industrial Training (P/T) 103 Industry Economics 123 Industry Project 1 101, 105 Industry Project 2 101, 106 Industry Study 1 100 Industry Study 2 100 Information for Information Technology students 25 Information Processing Strategy 110 Information Systems 95 Information Systems and Organisation Development 103 Information Systems Foundations 100 Information Technology Management Research Methods 116 Information Technology Planning and Design 97 Information Technology Professional and Society 99 Information Technology Research Methods 116 Information Technology Strategy 116 Information, Classification and Control 98 Intelligent Agents in Java 104 International Accounting 119 International Business 117 International Employment Relations 118 International Exchange Student Scheme 12 International Management 118 International Marketing 122 International Studies subjects 132 Internet Commerce 104 Internet Programming 111 Internetwork Design 112 Introduction to Australian IT Industry 102

Introduction to Collaborative Systems 99

Introduction to Computer Graphics 95

Introductory Marketing Research 122 Introductory Mathematical Methods 123 IT Experience 1 95 IT Experience 2 95 Italian Language and Culture subjects 139

## J

Japanese Language and Culture subjects 141 Jumbunna, Indigenous House of Learning 14, 15

#### K

Knowledge Management 113 Knowledge-based Systems 104

#### L

Language programs 132 LANs and Routing 112 Law of Contract 127 Law of Evidence 130 Law of Tort 127 Legal Process and History 126 Legal Research 126 Library, UTS 11

## M

Machine Learning 104 Macroeconomic Theory and Policy 123 Malaysian Language and Culture subjects 142 Managerial Accounting 121 Managing Client Relations 122 Managing Organisational Change 119 Managing People and Organisations 117 Managing the International Organisation 118 Marketing Foundations 121 Master of Business in Information Technology Management 70 Master of Information Technology 78 Master of Interactive Multimedia 81 Master of Science 86 Master of Science in Computing 65 Master of Science in e-Business Technology 76 Master of Science in Internetworking 74 Mathematics Study Centre 15 Message from the Dean 24 Microeconomic Theory and Policy 123 Multi-agent Systems 114 Multilayer Switched Networks 108

#### N

Network Management 112 Network Optimisation 124 Network Security 114 Networked Enterprise Design 108 Networking 1 98, 101 Networking 2 98, 101 Networking Communities 113 Networking Fundamentals 102

NSW child protection legislation 16	Remedies 129
Numerical list of subjects 148	Requirements Engineering 99 Requirements Engineering Research and
0	Practice 109
Objectbases 107	Resources Management for IT Professionals 105
Object-oriented Design 98	Review of IT Experience 95 Russian 142
Object-oriented Methodologies 107	TOUGHT 112
Object-oriented Modelling 113	S
Object-oriented Process 108	
Object-oriented Programming 98 Object-oriented Programming and C++ 106	Short courses 26 Simulation Modelling 125
Operating Systems 101, 110	Simulation Modelling 125 Smalltalk 107
Operating Systems Facilities 106	Software Development Case Study 97
Operating Systems for Internetworking 111	Software Quality Assurance 108
Operations Research Modelling 124	Spanish Language and Culture subjects 142
Optimisation 1 124	Staff list 163 Statement of good practice and othics in informal
Optimisation 2 124 Other services 16	Statement of good practice and ethics in informal assessment 36
o diez services 10	Statistics 2 124
P	Strategic Business Management 119
D 1D . 100	Strategic Human Resource Management 118
Personal Property 128 Physics in Action (Physics 2) 125	Strategic Information Technology Planning
Physics Learning Centre 15	Project 100 Strategic IT Contract Management 116
Postgraduate coursework degrees 65	Strategic IT Contract Management 116 Student complaints 16
Postgraduate Education Loans Scheme (PELS) 10	Student inquiries 7
Practice and Procedure 129	Student Learning Centres 14
Preparation and Review of IT Experience 95	Student Ombud 16
Principal dates for 2002–20 Principles of Distributed Computing 98	Student Services Unit 12
Principles of Object-oriented Programming in	Students' Association 19 Study Centre 34
C++ 111	Subjects
Principles of Object-oriented Programming in	Alphabetical list of 158
Smalltalk 111	Descriptions 95
Principles of Software Development A 96	ELSSA 91
Principles of Software Development B 96 Prizes and scholarships 34	International Studies 132 Numerical list of 148
Probability and Stochastic Processes 125	Offered by other faculties 117
Procedural Programming 96	Support for student learning 12
Programming for Performance 102	Systems Analysis 115
Programming Fundamentals 100, 101	Systems Design 101
Programming on the Internet 104 Project A 116	Systems Design and Development 97
Project B 116	Systems Development 100 Systems Development Project 99
Project B2 117	Systems Integration 115
Project Management 104, 113	Systems Modelling 96
Project Management and Quality Assurance 99	Systems Programming 106
Project Management and the Professional 97	Systems Software and Networks 97
Q	Т
Quality Control 124	3D Computer Animation 102
Quantitative Modelling 96	Technology, Society and Change 131
B	Thai 145
R	U
Radio Station 2SER-FM (103.7 FM) 20	•
Real Property 128	Undergraduate courses 38
Recent Advances in Information Systems 116 Reconciliation Studies 130, 131	Combined degrees 58
Regression Analysis 124	Double degree 63 University Graduate School 11
,	Campaig Canadate Oction 11

## 170 Index

UNIX Systems Administration 111 UNIX Systems Programming 114 UTS Gallery and Art Collection 20 UTS Union 19



Vibrations, Quanta and Nucleons (Physics 4) 126 Virtual Communities 102



WANs and VLANs 111 Welcome 6 Wide Area Network Implementation 108



Youth Allowance 11

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## City campus

#### **Broadway**

- Tower, Building 1 (CB01)
   15 Broadway, Broadway
- Building 2 (CB02)
   15 Broadway, Broadway
- Bon Marche, Building 3 (CB03)
   765 Harris Street, Broadway
- Building 4 (CB04)
   751 Harris and 95 Thomas Streets
- Peter Johnson Building Building 6 (CB06)
   702 Harris Street, Broadway
- The Terraces (CB08)
   9, 11 and 13 Broadway, Broadway

#### Haymarket

 Haymarket, Building 5 (CM05A-CM05D)
 1–59 Quay Street
 Haymarket

#### **Blackfriars**

 Corner Blackfriars and Buckland Streets Chippendale (CC01–CC07)

#### **Smail Street**

3 Smail Street, Ultimo (CS01)

#### **Harris Street**

645 Harris Street, Ultimo (CH01)

#### McKee Street

McKee Street Childcare (CK01)
 1–15 McKee Street, Ultimo

## **Quay Street**

- 10 Quay Street, Haymarket
- Prince Centre
   8 Quay Street, Haymarket

## Student housing

- Bulga Ngurra (CA02)
   23–27 Mountain Street, Ultimo
- Geegal (CA01)
   82–84 Ivy Street, Chippendale

#### Institute for Sustainable Futures

 National Innovation Centre Corner Garden, Cornwallis and Boundary Streets Eveleigh NSW 1430 telephone (02) 9209 4350 fax (02) 9209 4351

## Kuring-gai campus

- Buildings KG01–KG05
   Eton Rd, Lindfield
   (PO Box 222, Lindfield NSW 2070)
- UTS Northshore Conference Centre

## St Leonards campus

- Dunbar Building (SL01)
   Corner Pacific Highway and
   Westbourne Street, Gore Hill
- Clinical Studies Building (SH52)
   Centenary Lecture Theatre (SH51)
   West Wing (SH11A), Reserve Road
   Royal North Shore Hospital
- Gore Hill Research Laboratories (SH44) and Biological Annexe (SHHHA) Royal North Shore Hospital

# Yarrawood conference and research centre

 689 Springwood Road Yarramundi NSW 2753

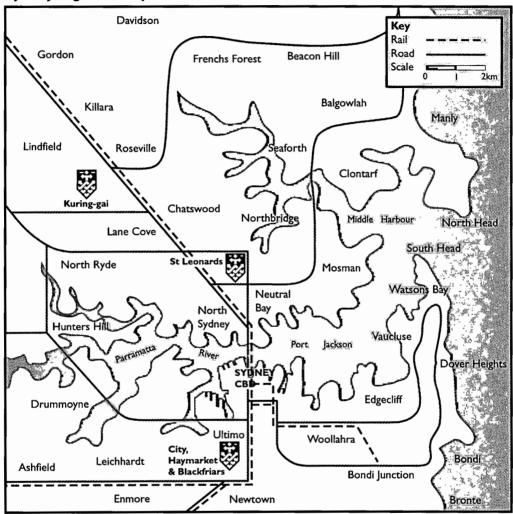
#### Stroud field station

 2605 The Bucketts Way Booral NSW 2425

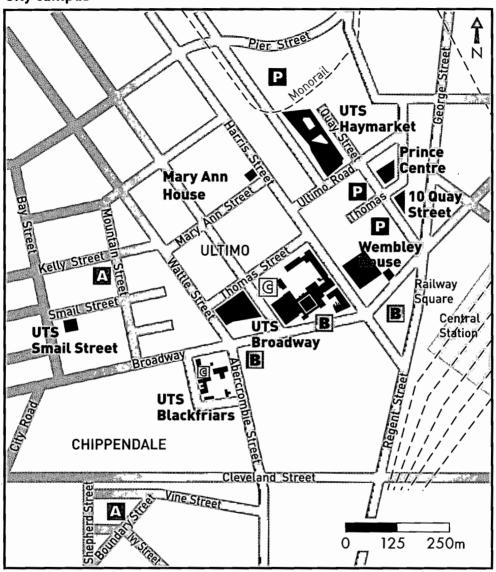
Note: In 2002 UTS City campus will extend to include Building CB10 (Jones Street) and a number of faculties and administrative units will be relocated.

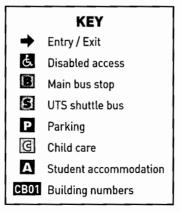
# **UTS MAPS**

## Sydney regional map

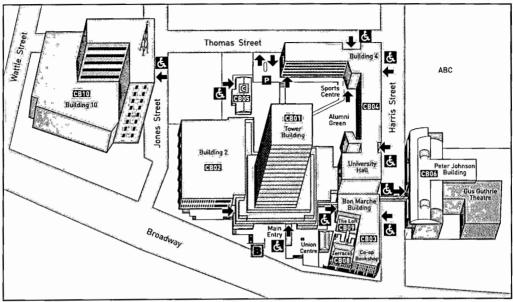


## City campus

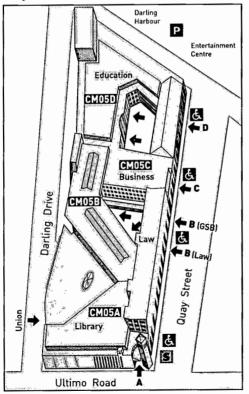




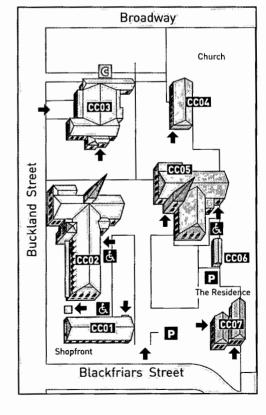
## **Broadway**



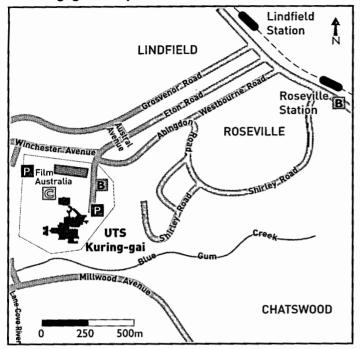
## Haymarket

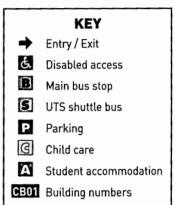


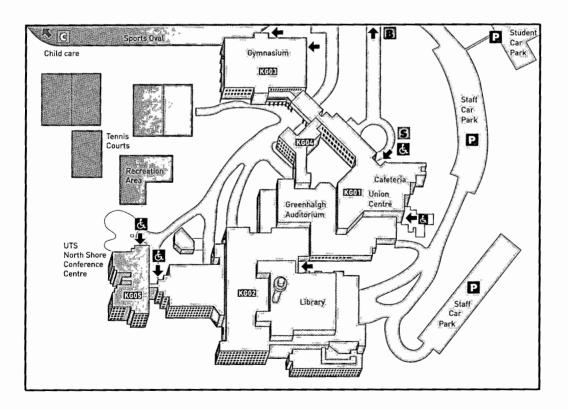
## **Blackfriars**



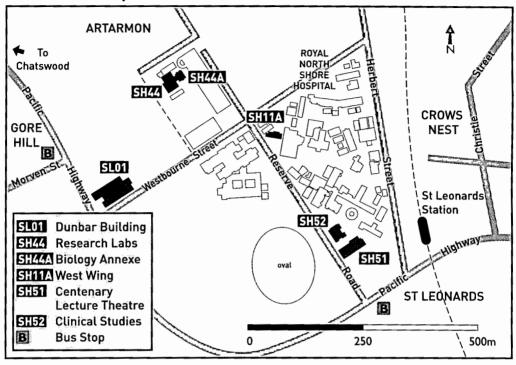
## Kuring-gai campus

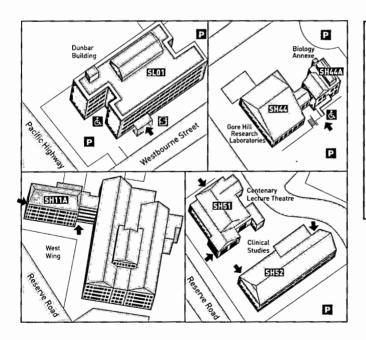






## St Leonards campus





# KEY → Entry / Exit ⑤ Disabled access B Main bus stop ⑤ UTS shuttle bus P Parking ⑥ Child care A Student accommodation CB01 Building numbers

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