Faculty of Informatics

Courses Offered

School of Electrical, Computer and Telecommunications Engineering

Doctor of Philosophy
Master of Engineering - Research
Master of Engineering Practice (Mechatronics)
Master of Engineering Studies
Master of Internet Technology
Graduate Diploma in Internet Technology

School of Information Technology and Computer Science

Doctor of Philosophy
Master of Information and Communication Technology – Research
Master of Computer Science - Research
Master of Information and Communication Technology (Advanced)
Master of Computer Science (Advanced)
Master of Computer Science
Master of Computer Studies
Master of Digital Multimedia
Master of Electronic Commerce
Master of Health Informatics
Master of Industry-based Information Technology
Master of Information and Communication Technology
Master of Information Technology Management
Graduate Certificate in Health Informatics
Graduate Certificate in Industry-based Information Technology
Graduate Certificate in Information and Communication Technology

School of Mathematics and Applied Statistics

Doctor of Philosophy
Master of Science - Research (Mathematics)
Master of Science - Research (Statistics)
Master of Mathematics
Master of Statistics
Master of Financial Mathematics
Graduate Diploma in Statistics

For tuition fee information please see the following:

Domestic - http://www.uow.edu.au/student/finances/studentcontributions.html
International - http://www.uow.edu.au/prospective/international/fees/

School of Electrical, Computer and Telecommunications Engineering

Doctor of Philosophy

Testamur Title of Degree:	Doctor of Philosophy
Abbreviation:	PhD
Home Faculty:	Informatics
Duration:	3 years (6 sessions) or part-time equivalent
Total Credit Points:	48cp per year
Delivery Mode:	Face-to-face or combination of Face-to-face/Distance
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	201
CRICOS Code:	001244E

Overview

Doctor of Philosophy (PhD) candidates undertake in-depth research in order to make an original and significant contribution to the body of knowledge in their chosen studies. This qualification can lead to or enhance an academic career and is highly regarded by private and public sector employers.

Entry Requirements/Assumed Knowledge

A four-year Honours Bachelor of Engineering degree (minimum Class II, Division 2 or higher); or a Master of Engineering Studies (at the required level); or a Master of Engineering – Research, in one of the following areas: Computer, Electrical, Electronic or Telecommunications Engineering; or equivalent.

The School normally requires students to register initially for the Masters by Research program. Subject to satisfactory progress, including the presentation of a report and seminar, a student's candidature may be transferred to Doctor of Philosophy (PhD) after one year, without penalty.

Course Requirements

This program is by 100% thesis. Students may be required to attend lectures in relevant topics from time to time throughout the program.

All new students enrolling in a research degree are expected to prepare and defend a research proposal early in their candidature. Normally, the degree will be completed in not less than four, and not more than eight, academic sessions of full-time study, or six to 16 sessions of part-time study.

Current Research Areas

The following areas of research are available to candidates undertaking the degrees of Doctor of Philosophy or Master of Engineering - Research:

Intelligent Mechatronics: Automation
Advanced control systems
Control networks
Haptic rendering
Machine tool design
Precision position and speed control
Robotics and sensors
Telerobotics
Virtual manipulation

Intelligent Mechatronics: Applications
Arc welding control
Medical image processing
Renewable energy sources
Superconducting magnetic energy storage
Virtual surgery

Power: Quality and Reliability
Conducted electromagnetic interference (EMI)
Data mining
Distribution system reliability
Harmonic management
Power electronics and drives
Power quality monitoring and data analysis
Power quality indices and reporting
Standardization

Voltage fluctuations and flicker

Telecommunications: Digital Signal Processing
Adaptive filtering
Blind signal processing
Coding for error-prone channels
Computational auditory scene analysis
Data mining
Filter banks and wavelets
Image and video segmentation, compression and retrieval
Internet access technologies (xDSL)
Low-rate speech coding
Multirate signal processing
Wideband speech/audio coding
3D Audio objects and environments

Telecommunications: Network Services
Internet and WWW services
Internet telephony
Multimedia databases
Network games
Video on demand
Virtual reality

Telecommunications: Photonics
Bragg grating sensing system
Fibre Bragg grating design and writing
FBG devices for optical communication systems
Optical fibre

Telecommunications: Switched Networks
Active networks
Ad hoc multi-hop networking
Closed loop control in packet networks
Location aware networking
Network dimensioning
Network management
Network traffic modelling and control
Wireless internet protocols

Telecommunications: Wireless Communications
Code division multiple access systems
Microwave propagation and channel modelling
Mobile ad hoc networks
Sequence design
Smart antennas
Space-time coding
Ultra wideband communications

Note: Not all areas are available for research at all levels, nor at all times.

Master of Engineering - Research

Testamur Title of Degree:	Master of Engineering – Research
Abbreviation:	MEng - Res
Home Faculty:	Informatics
Duration:	1.5 years (3 sessions) or part-time equivalent
Total Credit Points:	72
Delivery Mode:	Supervised individual research and face-to-face classes
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	1303
CRICOS Code:	042557D

Overview

The aims of this program are to provide specialised research training for those preparing for careers in academia, government and industry; and to provide practising engineers with the means to increase their knowledge and upgrade their qualifications.

Entry Requirements/Assumed Knowledge

This degree is primarily a research degree for those who have completed an Honours Bachelor degree at a standard of Class II, Division 2 or higher, or a Master of Engineering Studies degree with satisfactory completion of ECTE953 and a weighted average mark of 67.5% or higher, or equivalent, in one of the following areas: computer, electrical or telecommunications engineering, or a related area. If a candidate has a good academic record, entry from a Pass Bachelor degree in computer, electrical, telecommunications engineering, or a related area, is possible.

Advanced Standing

Candidates with an Honours Bachelor degree at a standard of Class II, Division 2 or higher, or a Master of Engineering Studies degree with satisfactory completion of ECTE953 and a weighted average mark of 67.5% or higher in computer, electrical, or telecommunications engineering or related area, or equivalent, may be given exemption from all, or some, of the 24 credit points of coursework. This would be contingent on evidence of considerable research strength.

Course Requirements

The degree is normally 72 credit points, consisting of a 48 credit point research thesis and 24 credit points of coursework. The program must be completed in a maximum time of two years full-time and requires satisfactory completion of the following:

1) 24 credit points of coursework, consisting of 900-level ECTE subjects chosen from those listed under the Master of Engineering Studies and approved by the Head of the School of Electrical, Computer and Telecommunications Engineering, in consultation with the School Postgraduate Research Committee, to constitute a coherent introduction to the proposed area of research; and
2) subject to students gaining a weighted average mark of 67.5% for the coursework, a 48 credit point thesis subject.

Candidates who fail to meet the requisite standard for the coursework component will be required to transfer to the Master of Engineering Studies.

Current Research Areas

Refer to Current Research Areas under the Doctor of Philosophy entry.

Other Information

Subject to satisfactory progress and satisfactory performance in seminars, students may transfer to the Doctor of Philosophy (PhD) program prior to completion of the Master of Engineering – Research.

Master of Engineering Practice (Mechatronics)

This course is offered jointly by the Faculty of Engineering and the School of Electrical, Computer and Telecommunications Engineering. Details of the Entry Requirements and Program of Study are contained in the Faculty of Engineering entry. Graduates interested in mechatronics who have an electrical, computer, electronic or related undergraduate degree, may also consider the Automation and Power Engineering Program, including the specialist mechatronics subjects within the Master of Engineering Studies.

Master of Engineering Studies

Testamur Title of Degree:	Master of Engineering Studies
Abbreviation:	MEngStud
Home Faculty:	Informatics
Duration:	1 year (2 sessions) or part-time equivalent
Total Credit Points:	48
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	587
CRICOS Code:	012128G

Overview

The objective of this program is to provide graduates with engineering skills at a level between the Bachelor and Masters by Research degree levels.

Entry Requirements/Assumed Knowledge

A degree equivalent to an Australian four-year Bachelor of Engineering in Computer, Electrical, Electronics or Telecommunications Engineering.

Course Requirements

Students are required to undertake Option A or B, worth 48 credit points, chosen from one of the following programs:

1) Automation and Power Engineering Program

2) Computer and Telecommunications Engineering

The structure for each program and the complete list of subjects available under the Master of Engineering Studies is presented below. In any given year, the subjects presented under the individual programs that follow may be replaced by equivalent subjects from this list.

Graduates with an interest in mechatronics are invited to take specialised subjects from the Automation and Power Engineering program.

Course Program

List of MEngStud Subjects

Subjects		Session	Credit Points
ECTE901	Fast Signal Processing Algorithms	Autumn	6
ECTE902	Stochastic Signal Processing	n/o 2006	6
ECTE903	Image and Video Processing	Spring	6
ECTE904	Adaptive Signal Processing	n/o 2006	6
ECTE905	Speech and Audio Processing	n/o 2006	6
ECTE911	AC-Sourced Power Electronics	n/o 2006	6
ECTE912	DC-Sourced Power Electronics	Autumn	6
ECTE913	Micro-Electronics	n/o 2006	6
ECTE921	Power Quality	Spring	6
ECTE922	Power Quality Monitoring	n/o 2006	6
ECTE923	Power Systems	Autumn	6
ECTE924	Power Systems Abnormalities	n/o 2006	6
ECTE925	Industrial Drives and Actuators	Autumn	6
ECTE926	Power Distribution	Spring	6
ECTE931	Real-Time Computing	Autumn	6
ECTE932	Computer Systems	n/o 2006	6
ECTE941	Intelligent Control	Spring	6
ECTE942	Computer Controlled Systems	n/o 2006	6
ECTE943	Digital Control	n/o 2006	6
ECTE944	Identification and Optimal Control	n/o 2006	6
ECTE953	Advanced Project	Autumn/Spring	12
ECTE955	Advanced Laboratory	Autumn/Spring	6
ECTE961	Telecommunications Queuing Theory	n/o 2006	6
ECTE962	Telecommunications System Modelling	Autumn	6
ECTE963	Transmission Systems	n/o 2006	6
ECTE964	Antennas and Propagation	n/o 2006	6
ECTE965	Wireless Communications	n/o 2006	6
ECTE966	Spread Spectrum Communications	n/o 2006	6
ECTE967	Mobile Networks	n/o 2006	6
ECTE968	Error Control Coding	n/o 2006	6
ECTE971	Robotics Manipulators	Spring	6
ECTE972	Robotics Sensory Control	n/o 2006	6
ECTE981	Internet Protocols	n/o 2006	6
ECTE982	Internet Engineering	Spring	6
ECTE983	Computer Networking	n/o 2006	6
ECTE984	Network Design and Analysis	n/o 2006	6
ECTE985	Internet Communications	n/o 2006	6
ECTE986	Telecommunications Network Management	n/o 2006	6

Automation & Power Engineering Program

Subjects		Session	Credit Points
Option A			
ECTE955	Advanced Laboratory*	Autumn/Spring	6
Plus seven subjects from the list of subjects below:**			
ECTE901	Fast Signal Processing Algorithms	Autumn	6
ECTE902	Stochastic Signal Processing	n/o 2006	6
ECTE911	AC-Sourced Power Electronics	n/o 2006	6
ECTE912	DC-Sourced Power Electronics	Autumn	6
ECTE921	Power Quality	Spring	6

ECTE923	Power Systems	Autumn	6
ECTE931	Real-Time Computing	Autumn	6
ECTE932	Computer Systems	n/o 2006	6
ECTE941	Intelligent Control	Spring	6
ECTE942	Computer Controlled Systems	n/o 2006	6
ECTE963	Transmission Systems	n/o 2006	6
ECTE971	Robotics Manipulators	Spring	6
ECTE972	Robotics Sensory Control	n/o 2006	6
Option B			
ECTE953	Advanced Project***	Autumn/Spring	12
ECTE955	Advanced Laboratory*	Autumn/Spring	6
Plus five subjects from the list of subjects below:**			
ECTE901	Fast Signal Processing Algorithms	Autumn	6
ECTE902	Stochastic Signal Processing	N/A in 2006	6
ECTE911	AC-Sourced Power Electronics	N/A in 2006	6
ECTE912	DC-Sourced Power Electronics	Autumn	6
ECTE921	Power Quality	Spring	6
ECTE923	Power Systems	Autumn	6
ECTE931	Real-Time Computing	Autumn	6
ECTE932	Computer Systems	N/A in 2006	6
ECTE941	Intelligent Control	Spring	6
ECTE942	Computer Controlled Systems	N/A in 2006	6
ECTE963	Transmission Systems	N/A in 2006	6
ECTE971	Robotics Manipulators	Spring	6
ECTE972	Robotics Sensory Control	N/A in 2006	6

* With the approval of the Head of School, this subject may be replaced by one of the elective subjects.

** Only a limited number of elective subjects will be available in any one year. However, the Head of School may also approve relevant subjects from other programs. Under normal circumstances, this approval would not exceed subjects to a total value of 12 credit points.

*** Entry to this subject is restricted to those students who gain a weighted average mark of at least 72.5% for the full-time first session load (i.e., four six credit point subjects, including ECTE955 Advanced Laboratory).

Computer & Telecommunications Engineering Program

Subjects		Session	Credit Points
Option A			
ECTE955	Advanced Laboratory*	Autumn/Spring	6
Plus seven subjects from the list of subjects below:**			
ECTE901	Fast Signal Processing Algorithms	Autumn	6
ECTE902	Stochastic Signal Processing	n/o 2006	6
ECTE903	Image and Video Processing	Spring	6
ECTE905	Speech and Audio Processing	n/o 2006	6
ECTE912	DC-Sourced Power Electronics	Autumn	6
ECTE931	Real-Time Computing	Autumn	6
ECTE932	Computer Systems	n/o 2006	6
ECTE941	Intelligent Control	Spring	6
ECTE942	Computer Controlled Systems	n/o 2006	6
ECTE961	Telecommunications Queuing Theory	n/o 2006	6
ECTE962	Telecommunications System Modelling	Autumn	6
ECTE963	Transmission Systems	n/o 2006	6
ECTE965	Wireless Communications	n/o 2006	6
ECTE982	Internet Engineering	Spring	6
ECTE983	Computer Networking	n/o 2006	6
ECTE985	Internet Communications	n/o 2006	6
ECTE986	Telecommunications Network Management	n/o 2006	6
Option B			
ECTE953	Advanced Project***	Autumn/Spring	12
ECTE955	Advanced Laboratory*	Autumn/Spring	6
Plus five subjects from the list of subjects below:**			
ECTE901	Fast Signal Processing Algorithms	Autumn	6
ECTE902	Stochastic Signal Processing	n/o 2006	6
ECTE903	Image and Video Processing	Spring	6
ECTE905	Speech and Audio Processing	n/o 2006	6
ECTE912	DC-Sourced Power Electronics	Autumn	6
ECTE931	Real-Time Computing	Autumn	6
ECTE932	Computer Systems	n/o 2006	6
ECTE941	Intelligent Control	Spring	6
ECTE942	Computer Controlled Systems	n/o 2006	6
ECTE961	Telecommunications Queuing Theory	n/o 2006	6
ECTE962	Telecommunications System Modelling	Autumn	6
ECTE963	Transmission Systems	n/o 2006	6

ECTE965	Wireless Communications	n/o 2006	6
ECTE982	Internet Engineering	Spring	6
ECTE983	Computer Networking	n/o 2006	6
ECTE985	Internet Communications	n/o 2006	6
ECTE986	Telecommunications Network Management	n/o 2006	6

* With the approval of the Head of School, this subject may be replaced by one of the elective subjects.

** Only a limited number of elective subjects will be available in any one year. However, the Head of School may also approve relevant subjects from other programs. Under normal circumstances, this approval would not exceed subjects to a total value of 12 credit points.

*** Entry to this subject is restricted to those students who gain a weighted average mark of at least 72.5% for the full-time first session load (i.e., four six credit point subjects, including ECTE955 Advanced Laboratory).

Other Information

Students who have satisfactorily completed ECTE953 Advanced Project and who gain a weighted average mark of 67.5% or higher in the Master of Engineering Studies are eligible to appy for entry to the Master of Engineering – Research, subject to supervisor availability.

Master of Internet Technology

Testamur Title of Degree:	Master of Internet Technology
Abbreviation:	MIT
Home Faculty:	Informatics
Duration:	1 year (2 sessions) or part-time equivalent
Total Credit Points:	48
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	1513
CRICOS Code:	036463E

Overview

This program is designed to provide students with advanced knowledge and specialist skills in a broad range of Internet technologies and systems.

The MIT degree is designed to enable a wide range of entry. It is suitable for candidates who wish to:

- update their existing technical qualifications;
- gain a qualification to complement their significant experience in related fields; or
- obtain a fundamental understanding of IT and how it affects their area of expertise.

Entry Requirements/Assumed Knowledge

A degree equivalent to a three or four-year Australian Bachelor degree completed within the last five years, with at least a 60% average, in Telecommunications, Computer or Electrical Engineering, Computer Science, Information Technology or related field; or a Graduate Diploma in Internet Technology.

Applicants with other degrees containing relevant computing content and/or who have at least two years Internet/computing work-related experience may be considered, or may be eligible for entry to the Graduate Diploma in Internet Technology.

Course Requirements

The degree will normally occupy two sessions of full-time study, or part-time equivalent, and requires the satisfactory completion of Option A or B, as outlined in the following course program.

Course Program

Subjects		Session	Credit Points
Option A			
ECTE991	Internet Fundamentals	Autumn/Spring	6
ECTE956	Internet Technology Laboratory*	Autumn/Spring	6
Plus six subjects from the following, of which three must be ECTE subjects:**			
CSCI968	Network Security	Spring	6
ECTE992	Internet Networking Protocols	Autumn/Spring	6
ECTE993	Wireline and Optical Communications	Autumn/Spring	6
ECTE994	Wireless and Mobile Communication Systems	Autumn	6

ECTE995	Content Servers and Caching Technologies	n/o 2006	6
ECTE996	Multimedia Communications	Autumn/Spring	6
ECTE997	Web Technology and Applications	Spring	6
IACT906	Business On-Line	Spring	6
IACT918	Corporate Network Management	Autumn	6
ITCS922	Computer Security	Autumn	6
ITCS937	Security, Risk Management and Control in Electronic Commerce	Autumn	6

Option B

ECTE991	Internet Fundamentals	Autumn/Spring	6
ECTE956	Internet Technology Laboratory*	Autumn/Spring	6
ECTE957	Advanced Internet Project***	Autumn/Spring	12
Plus four subjects from the following, of which one must be an ECTE subject:**			
CSCI968	Network Security	Spring	6
ECTE992	Internet Networking Protocols	Autumn/Spring	6
ECTE993	Wireline and Optical Communications	Autumn/Spring	6
ECTE994	Wireless and Mobile Communication Systems	Autumn	6
ECTE995	Content Servers and Caching Technologies	n/o 2006	6
ECTE996	Multimedia Communications	Autumn/Spring	6
ECTE997	Web Technology and Applications	Spring	6
IACT906	Business On-Line	Spring	6
IACT918	Corporate Network Management	Autumn	6
ITCS922	Computer Security	Autumn	6
ITCS937	Security, Risk Management and Control in Electronic Commerce	Autumn	6

* ECTE956 Internet Technology Laboratory must be undertaken in the first session of a student's enrolment.

**Only a limited number of subjects will be available in any one session.

***Entry to this subject is restricted to those students who gain a weighted average mark of 72.5% for the full-time first session load (i.e., four six credit point subjects, including ECTE956 Internet Technology Laboratory and ECTE991 Internet Fundamentals).

Other Information

Students who have satisfactorily completed ECTE957 Advanced Internet Project and who gain a weighted average mark of 72.5% or higher in the Master of Internet Technology are eligible to apply for entry to the Master of Engineering – Research, subject to supervisor availability.

Graduate Diploma in Internet Technology

Testamur Title of Degree:	Graduate Diploma in Internet Technology
Abbreviation:	GDipIT
Home Faculty:	Informatics
Duration:	1 year (2 sessions) or part-time equivalent
Total Credit Points:	48
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	675
CRICOS Code:	047175M

Overview

The objective of this program is to provide state of the art knowledge and specialist skills on a broad range of Internet technologies and systems. It is suitable for candidates who have existing but limited ICT technical qualifications or who have significant experience in related fields, but wish to significantly upgrade their knowledge and understanding in this field. The Graduate Diploma in Internet Technology also provides a pathway to the Master of Internet Technology (MIT) degree.

Entry Requirements/Assumed Knowledge

A three-year tertiary qualification with at least a 60% average, which must include the equivalent of first year mathematics.

Applicants without first-year mathematics, but who have at least two years of Internet/computer related work experience may be considered.

Course Requirements

The Graduate Diploma in Internet Technology requires the satisfactory completion of a recommended program of study approved by the Head of School, consisting of 48 credit points of coursework subjects.

Students will have the opportunity to gain general and specialist skills in diverse areas of Internet technologies and their applications, including:

- Programming and programming languages such as Java,
- Database systems,
- System level engineering principles and design,
- Electronics and communications, and
- Embedded Internet systems.

State of the art practical exposure to Internet technologies will be provided through advanced laboratory experiments and communication and group work skills.

On enrolment, each student will be considered individually and provided with details of subjects recommended to suit their specific background.

Other Information

Students who satisfactorily complete the Graduate Diploma in Internet Technology are eligible to apply for entry to the Master of Internet Technology.

School of Information Technology and Computer Science

Doctor of Philosophy

Testamur Title of Degree:	Doctor of Philosophy
Abbreviation:	PhD
Home Faculty:	Informatics
Duration:	3 years (6 sessions) or part-time equivalent
Total Credit Points:	48 cp per year
Delivery Mode:	Face-to-face, or combination of Face-to-face/distance
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	201
CRICOS Code:	001244E

Overview

Doctor of Philosophy (PhD) candidates undertake in-depth research in order to make an original contribution to the body of knowledge in a chosen field of study. This qualification can lead to, or enhance, an academic career and is also highly regarded by public and private sector employers.

Entry Requirements/Assumed Knowledge

A four-year Honours Bachelor degree in Information and Communication Technology or Computer Science (a minimum of Class II, Division 2 or higher), or a Master of Information and Communication Technology – Research or Master of Computer Science – Research degree with strong performance in the 48 credit point thesis, or equivalent.

Course Requirements

This program is 100% by thesis. Candidates enrol in a 48 credit point thesis subject and repeat the same enrolment for each year of study, usually over three years of full-time study. Students may be required to attend lectures in relevant topics from time to time throughout the program.

Current Research Areas

e-Business Applications
Customer relationship management
e-commerce
e-learning
e-manufacturing

Information management
Supply chain management

Computer and Communication Security
Cryptography
Network and communication security
Distributed systems security
Error control coding
Combinatorial designs

Multimedia Content Protection and Management
Multimedia signal processing
Content protection (encryption, watermarking, authentication)
Digital rights management
Image and video processing
Digital camera image processing (de-mosaicing, AWB, colour correction)
Video surveillance
Multimedia content based annotation, browsing and searching
Biometric security

Intelligent Systems
Robotics
Neural networks
Machine vision
Ultrasonic sensing
Spatial databases
Safety, risk and hazard analysis
Distributed systems
Databases
Workflow and process modelling
Software engineering
Decision systems
Supply chain management

Health Informatics
Aged care
Ambulatory care
Electronic health records
Health record input systems
Point-of-care solutions
Privacy issues in EHRs

Master of Information and Communication Technology - Research

Testamur Title of Degree:	Master of Information and Communication Technology – Research
Abbreviation:	MInfoTech – Res
Home Faculty:	Informatics
Duration:	1.5 years (3 sessions) or part-time equivalent
Total Credit Points:	72
Delivery Mode:	Face-to-face, or combination of Face-to-face/Distance
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	1309
CRICOS Code:	042638C

Overview

This program is designed to provide students with sound practice in research methods appropriate to the study of information and communication technology applications, and to prepare students for Doctor of Philosophy (PhD) level research.

Entry Requirements/Assumed Knowledge

This is primarily a research degree for those who have completed an Honours Bachelor degree at a standard of Class II, Division 2 or higher, or a Masters by coursework in Information and Communication Technology. If a candidate has a good academic record, entry from a Pass Bachelor degree, Pass Bachelor degree and Graduate Diploma, or Pass Bachelor Degree and Graduate Certificate, is possible.

Advanced Standing

Candidates with an Honours Bachelor degree at a standard of Class II, Division 2 or higher, or Masters by coursework degree, may be given exemption from all, or some, of the 24 credit points of coursework and admitted directly to the 48 credit point research thesis component. This is contingent on evidence of proven research experience.

Course Requirements

The degree is normally 72 credit points, consisting of a 48 credit point research thesis and 24 credit points of coursework. The program must be completed in a maximum time of two years full-time and requires satisfactory completion of the following:

1) IACT940 Research Methodology (6cp)
2) Three subjects (18cp) from the IACT Graduate Subjects List to constitute a coherent introduction to the proposed area of research, as agreed to by the Head of School. (Note: students must achieve at least a WAM of 67.5% in the coursework component); and
3) 48 credit point thesis.

Candidates who fail to meet the requisite standard for the coursework component may have their enrolment cancelled. In this case, a candidate may be eligible to apply for one of the graduate certificates offered by the School or transfer to a 48 credit point Masters by coursework degree.

A candidate may not include for this degree subjects similar in content to subjects included in their Honours or Masters course.

Each candidate shall have a supervisor and a co-supervisor appointed on the recommendation of the Head of School of Information Technology and Computer Science.

Current Research Areas

For areas of interest available to candidates undertaking the Master of Information and Communication Technology – Research, please refer to Current Research Areas under the Doctor of Philosophy entry.

Master of Computer Science - Research

Testamur Title of Degree:	Master of Computer Science – Research
Abbreviation:	MCompSc – Res
Home Faculty:	Informatics
Duration:	1.5 years (3 sessions) or part-time equivalent
Total Credit Points:	72
Delivery Mode:	Face-to-face, or combination of Face-to-face/Distance
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	1313
CRICOS Code:	042541A

Overview

This program is designed to equip students with superior skills in research design and methodology in preparation for leadership roles in the field of computer science.

Entry Requirements/Assumed Knowledge

This is primarily a research degree for those who have completed an Honours Bachelor degree at a standard of Class II, Division 2 or higher, or a Masters by coursework in Computer Science. If a candidate has a good academic record, entry from a Pass Bachelor degree, Pass Bachelor degree and Graduate Diploma, or Pass Bachelor Degree and Graduate Certificate, is possible.

Advanced Standing

Candidates with an Honours Bachelor degree at a standard of Class II, Division 2 or higher, or Masters by coursework degree, may be given exemption from all, or some, of the 24 credit points of coursework and admitted directly to the 48 credit point research thesis component. This is contingent on evidence of proven research experience.

Course Requirements

The degree is normally 72 credit points, consisting of a 48 credit point research thesis and 24 credit points of coursework. The program must be completed in a maximum time of two years full-time and requires satisfactory completion of the following:

1) IACT940 Research Methodology (6cp)

2) Three subjects (18cp) from the CSCI Graduate Subjects List to constitute a coherent introduction to the proposed area of research, as agreed to by Head of School. (Note: students must achieve at least a WAM of 67.5% in the coursework component); and

3) 48 credit point thesis.

Candidates who fail to meet the requisite standard for the coursework component may have their enrolment cancelled. In this case, a candidate may be eligible to apply for one of the graduate certificates offered by the School or transfer to a 48 credit point Masters by coursework degree.

A candidate may not include for this degree subjects similar in content to subjects included in their Honours or Masters course.

Each candidate shall have a supervisor and a co-supervisor appointed on the recommendation of the Head of the School of Information Technology and Computer Science.

Current Research Areas

Refer to Current Research Areas under the Doctor of Philosophy entry.

Master of Information & Communication Technology (Advanced)*

*subject to final approval

Testamur Title of Degree:	Master of Information and Communication Technology (Advanced)
Abbreviation:	MICT (Adv)
Home Faculty:	Informatics
Duration:	1.5-2 years (3-4 sessions) or part time equivalent
Total Credit Points:	72
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	TBC
CRICOS Code:	TBC

Overview

This degree is aimed primarily at graduates working in the ICT industry who will benefit from an in-depth study of the organisational, economic, regulatory and socio-technical issues that arise in the implementation and application of IT, and of how to effectively manage these issues. Candidates may choose to complete either a single or a double major in a sub-discipline such as applied e-business technologies, e-business management, corporate network management, corporate network design, information technology management or health informatics.

Entry Requirements/Assumed Knowledge

A degree equivalent to a three-year Australian Bachelor degree, with at least a 60% average, in an area related to ICT (eg Computer Science, Information Technology, Business Information Systems, Computer Engineering, Electrical Engineering, Telecommunications Engineering), or a Graduate Certificate in Information and Communication Technology with at least a 60% average.

Applicants with a degree in any area plus at least one year full-time employment in the ICT industry will be considered.

Students with an average mark of at least 60% in their three-year Bachelor degree, but with little or no background in IT, may still apply, but may be required to take up to three (3) subjects in addition to the core subject, as specified by the course co-ordinator.

Course Requirements

1. The degree requires satisfactory completion of 900- level subjects to the value of at least 72 credit points, including:
   (a) the core subject ITCS900, Fundamentals of Contemporary Technologies.
   (b) eight (8) subjects (48cp) selected from the IACT Graduate Subjects List.
   (c) an additional three (3) subjects (18cp) selected from the IACT Graduate Subjects List, the CSCI Graduate Subjects List or the Graduate Additional Subjects List.

2. To be awarded with a major study, a candidate shall satisfactorily complete four (4) subjects (24cp) as set out in the relevant program below, within the requirements of 1(b) and (c) above.

3. To be awarded with a double major, candidates must ensure that four of the subjects selected satisfy the requirements of one major and that a separate set of four subjects satisfy the requirements of a second major, i.e. any subject counted towards one major cannot also count towards a second major.

Areas of Major Study

Candidates enrolled in this degree may choose to major in:

- Applied e-Business Technologies [MICT01]
- e-Business Management [MICT02]
- Corporate Network Management [MICT03]
- Corporate Network Design [MICT04]
- Information Technology Management [MICT05]
- Health Informatics [MICT06]

NOTE: Subjects below marked with an asterisk (*) are from the Graduate Additional Subjects List or the CSCI Graduate Subjects List. The course requirements allow at most 3 subjects from a list other than the IACT Graduate Subjects List to be counted in the total credit points required for this degree (see course requirement 1(c) above). Candidates who do more than 3 subjects from a list other than the IACT Graduate Subject List will only be allowed to count the first 3 of those subjects towards the total credit points for the degree.

Subjects		Session	Credit Points
Applied e-Business Technologies			
ITCS938	e-Business Technologies	Autumn	6
Plus at least 18 credit points from the following subjects:			
IACT919	Online Information Services	Spring	6
ITCS936	Detailed Design of Integrated Solutions for e-Business	Spring	6
ITCS937	Security, Risk Management & Control in Electronic Commerce	Autumn	6
ITCS950	Patterns for e-Business	Autumn	6
ITCS951	Web Services for Dynamic e-Business	Spring	6
e-Business Management			
IACT906	Business On-Line	Spring	6
Plus at least 18 credit points from the following subjects:			
IACT901	IT Strategic Planning	Spring	6
IACT905	Information Technology and Innovation	Autumn	6
IACT916	Organisational Issues in Information Technology	Autumn	6
IACT919	Online Information Services	Spring	6
TBS908*	Supply Chain Management	Intake A/Intake C	6
Corporate Network Management			
IACT918	Corporate Network Management	Autumn	6
Plus at least 18 credit points from the following subjects:			
CSCI968*	Network Security	Spring	6
ECTE986*	Telecommunications Network Management	n/o 2006	6
IACT901	IT Strategic Planning	Spring	6
IACT916	Organisational Issues in Information Technology	Autumn	6
Corporate Network Design			
IACT924	Corporate Network Design and Implementation	Spring	6
Plus at least 18 credit points from the following subjects:			
CSCI968*	Network Security	Spring	6
ECTE962*	Telecommunications System Modelling	Autumn	6
ECTE982*	Internet Engineering	Spring	6
ECTE992*	Internet Networking Protocols	Autumn/Spring	6
ITCS937	Security, Risk Management & Control in Electronic Commerce	Autumn	6

Note: 4 subjects in the Corporate Network Design major are from the Graduate Additional Subjects List or the CSCI Graduate Subjects List. The course requirements allow at most 3 subjects from a list other than the IACT Graduate Subjects List to be counted in the total credit points required for this degree. Candidates who do more than 3 subjects from a list other than the IACT Graduate Subject List will only be allowed to count the first 3 of those subjects towards the total credit points for the degree.

Information Technology Management			
IACT901	IT Strategic Planning	Spring	6
Plus at least 18 credit points from the following subjects:			
BUSS952*	Strategic Information System Management	Autumn	6
IACT905	Information Technology and Innovation	Autumn	6
IACT916	Organisation Issues in Information Technology	Autumn	6
IACT917	Information Management	Autumn	6
Health Informatics			
ITCS930	Introduction to Health Informatics	Autumn	6
Plus at least 18 credit points from the following subjects:			
GHMD909*	Comparative Health Systems: Policies and Politics	Spring	6

GHMD983*	Statistics in Health Research	Spring	6
IACT916	Organisational Issues in Information Technology	Autumn	6
ITCS929	Concepts and Issues In Healthcare Computing	Spring	6
ITCS952	Exploiting Collaborative Technologies	Spring	6

Note: Not all subjects will be available every year.

Additional Information

Prior to the conferring of a Master of Information and Communication Technology (Advanced) upon a candidate who holds a Graduate Certificate in Information and Communication Technology (GCertICT) or a Master of Information and Communication Technology (MICT) from this University, the candidate will surrender the testamur and all rights relating to the GCertICT or MICT.

Master of Computer Science (Advanced)*

*subject to final approval

Testamur Title of Degree:	Master of Computer Science (Advanced)
Abbreviation:	MCompSc (Adv)
Home Faculty:	Informatics
Duration:	1.5-2 years (3-4 sessions) or part time equivalent
Total Credit Points:	72
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	TBC
CRICOS Code:	TBC

Overview

This degree is designed to provide advanced studies in Computer Science at a professional level and also prepare students for the Master of Computer Science – Research or Doctoral research programs. Candidates may choose to complete either a single or a double major in a sub-discipline such as computer and network security, digital multimedia programming or software engineering.

Entry Requirements/Assumed Knowledge

A degree equivalent to a three-year Australian Bachelor degree with a major in Computer Science, Software Engineering or Computer Engineering, with at least a 60% average. Knowledge of C++ and UNIX is assumed.

Course Requirements

1. The degree requires satisfactory completion of 900- level subjects to the value of at least 72 credit points, including:
   (a) at least nine (9) subjects (54cp) selected from the CSCI Graduate Subjects List.
   (b) no more than three (3) additional subjects (18cp) selected from the CSCI Graduate Subjects List or the IACT Graduate Subjects List.
   (c) with the prior approval of the course co-ordinator, no more than one (1) subject (6cp) from the Graduate Additional Subjects List.

2. To be awarded with a major study, a candidate shall satisfactorily complete four (4) subjects (24cp) as set out in the relevant program below, within the requirements of 1. above.

3. To be awarded with a double major, candidates must ensure that four of the subjects selected satisfy the requirements of one major and that a separate set of four subjects satisfy the requirements of a second major, i.e. any subject counted towards one major cannot also count towards a second major.

Areas of Major Study

Candidates enrolled in this degree may choose to major in:

- Digital Multimedia Programming [MCSC01]
- Software Engineering [MCSC02]
- Computer and Network Security [MCSC03]

Subjects		Session	Credit Points
Digital Multimedia Programming			
ITCS940	Multimedia Programming Foundations	Autumn	6
Plus at least 18 credit points from the following subjects:			
CSCI944	Perception and Planning	Spring	6
CSCI963	Advanced Computer Graphics	n/o 2006	6
DESN921*	Creative Industries: Design for Interactive Multimedia	Spring	6
ITCS932	Web Design	Spring	6
ITCS942	Multimedia 3D Modelling and Animation	Spring	6
ITCS943	Game Design and Programming	Autumn	6
Software Engineering			
ITCS933	Software Engineering Requirements and Specifications	Spring	6
Plus at least 18 credit points from the following subjects:			
CSCI910	Formal Methods in Software Engineering	Autumn	6
CSCI925	Topics in Software Engineering	n/o 2006	6
CSCI974	Systems Analysis	n/o 2006	6
ITCS921	Database Design and Implementation	Autumn	6
ITCS934	Software Process Management	Autumn	6
Computer and Network Security			
CSCI968	Network Security	Spring	6
CSCI971	Computer Security	Spring	6
Plus at least 12 credit points from the following subjects:			
CSCI966	Coding for Secure Communication	Autumn	6
INFO912	Mathematics for Cryptography	Autumn	6
ITCS937**	Security, Risk Management and Control in Electronic Commerce	Autumn	6

* Subjects marked with an asterisk (*) are from the Graduate Additional Subjects List. The course requirements allow at most 1 subject from the Graduate Additional Subjects List to be counted in the total credit points required for this degree (see course requirement 1(c) above). Candidates who do more than 1 subject from the Graduate Additional Subjects List will only be allowed to count the first subject towards the total credit points for the degree.

** Subjects marked with an asterisk (**) are from the IACT Graduate Subjects List. The course requirements allow at most 3 subjects from the IACT Graduate Subjects List to be counted in the total credit points required for this degree (see course requirement 1(b) above). Candidates who do more than 3 subjects from the IACT Graduate Subjects List, will only be allowed to count the first 3 subjects towards the total credit points for the degree.

Note: Not all subjects will be available every year.

Other Information

Prior to the conferring of a Master of Computer Science (Advanced) upon a candidate who holds a Master of Computer Science (MCompSc) from this University, the candidate will surrender the testamur and all rights relating to the MCompSc.

Master of Computer Science*

*revised structure subject to final approval

Testamur Title of Degree:	Master of Computer Science
Abbreviation:	MCompSc
Home Faculty:	Informatics
Duration:	1 year (2 sessions) or part-time equivalent
Total Credit Points:	48
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	585
CRICOS Code:	012129F

Overview

This degree is designed to provide advanced studies in Computer Science at a professional level and also prepare students for the Master of Computer Science – Research or Doctoral research programs. Candidates may choose to complete a single major in a sub-discipline such as computer and network security, digital multimedia programming or software engineering.

Entry Requirements/Assumed Knowledge

A degree equivalent to a three-year Australian Bachelor degree with a major in Computer Science, Software Engineering or Computer Engineering, with at least a 60% average. Knowledge of C++ and UNIX is assumed.

Course Requirements

The degree requires satisfactory completion of 900- level subjects to the value of at least 48 credit points, including:

(a) at least five (5) subjects (30cp) selected from the CSCI Graduate Subjects List.

(b) no more than three(3) additional subjects (18cp) selected from the CSCI Graduate Subjects List or the IACT Graduate Subjects List.

(c) with the prior approval of the course co-ordinator, no more than one (1) subject (6cp) from the Graduate Additional Subjects List.

2. To be awarded with a major study, a candidate shall satisfactorily complete four (4) subjects (24cp) as set out in the relevant program below, within the requirements of 1. above.

Areas of Major Study

Students enrolled in this degree may choose to major in:

- Digital Multimedia Programming [MCSC01]
- Software Engineering [MCSC02]
- Computer and Network Security [MCSC03]

Subjects		Session	Credit Points
Digital Multimedia Programming			
ITCS940	Multimedia Programming Foundations	Autumn	6
Plus at least 18 credit points from the following subjects:			
CSCI944	Perception and Planning	Spring	6
CSCI963	Advanced Computer Graphics	n/o 2006	6
DESN921*	Creative Industries: Design for Interactive Multimedia	Spring	6
ITCS932	Web Design	Spring	6
ITCS942	Multimedia 3D Modelling and Animation	Spring	6
ITCS943	Game Design and Programming	Autumn	6
Software Engineering			
ITCS933	Software Engineering Requirements and Specifications	Spring	6
Plus at least 18 credit points from the following subjects:			
CSCI910	Formal Methods in Software Engineering	Autumn	6
CSCI925	Topics in Software Engineering	n/o 2006	6
CSCI974	Systems Analysis	n/o 2006	6
ITCS921	Database Design and Implementation	Autumn	6
ITCS934	Software Process Management	Autumn	6
Computer and Network Security			
CSCI968	Network Security	Spring	6
CSCI971	Computer Security	Spring	6
Plus at least 12 credit points from the following subjects:			
CSCI966	Coding for Secure Communication	Autumn	6
INFO912	Mathematics for Cryptography	Autumn	6
ITCS937**	Security, Risk Management and Control in Electronic Commerce	Autumn	6

* Subjects marked with an asterisk (*) are from the Graduate Additional Subjects List. The course requirements allow at most 1 subject from the Graduate Additional Subjects List to be counted in the total credit points required for this degree (see course requirement 1(c) above). Candidates who do more than 1 subject from the Graduate Additional Subjects List will only be allowed to count the first subject towards the total credit points for the degree.

** Subjects marked with an asterisk (**) are from the IACT Graduate Subjects List. The course requirements allow at most 3 subjects from the IACT Graduate Subjects List to be counted in the total credit points required for this degree (see course requirement 1(b) above). Candidates who do more than 3 subjects from the IACT Graduate Subjects List, will only be allowed to count the first 3 subjects towards the total credit points for the degree.

Note: Not all subjects will be available every year.

Master of Computer Studies

Testamur Title of Degree:	Master of Computer Studies
Abbreviation:	MCompStud
Home Faculty:	Informatics
Duration:	1.5-2 years (3-4 sessions) or part time equivalent
Total Credit Points:	72
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong

UOW Course Code:	1510
CRICOS Code:	034148K

Overview

This course has been specifically designed to allow students with a Bachelor degree outside the computing field to gain a Master level qualification in the area.

Entry Requirements/Assumed Knowledge

A degree equivalent to a three-year Australian Bachelor degree in any discipline, with at least a 60% average.

Course Requirements

Candidates must successfully complete 12 subjects, including:

1) Seven Core Subjects;

2) No more than (3) subjects selected from Elective Subjects List A; and

3) At least two (2) subjects selected from the Elective Subjects List B.

Course Program

Subjects		Session	Credit Points
Core Subjects			
MCS9102	Systems	Spring	6
MCS9103	Algorithms & Problem Solving	Autumn/Spring	6
MCS9114	Procedural Programming	Autumn/Spring	6
MCS9124	Applied Programming	Autumn/Spring	6
MCS9203	Algorithms & Data Structures	Autumn	6
MCS9204	Object Programming and Frameworks	Autumn/Spring	6
MCS9212	Interacting Systems	Autumn	6
Elective Subjects List A			
Plus no more than 3 subjects from:			
MCS9201	Information Technology & Citizens' Rights	Autumn	6
MCS9205	Development Methods & Tools	Spring	6
MCS9206	Markup Languages	Autumn	6
MCS9213	Java Programming & Object Oriented Design	Spring	6
MCS9214	Distributed Systems	Autumn	6
MCS9235	Database Systems	Spring	6
Elective Subjects List B			
Plus at least 2 subjects from:			
MCS9301	Information & Communication Security Issues	Spring	6
MCS9303	The Wired World	Spring	6
MCS9315	Database Design & Implementation	Autumn	6
MCS9317	Database Performance Tuning	Spring	6
MCS9318	Software Engineering Practices & Principles	Spring	6
MCS9322	Systems Administration	Spring	6
MCS9323	Artificial Intelligence	Spring	6
MCS9324	Human Computer Interface	Autumn	6
MCS9334	Real Time Programming	Autumn	6
MCS9337	Organisation of Programming Languages	Spring	6
MCS9361	Computer Security	Autumn	6
MCS9457	Advanced Databases	Autumn	6

Master of Digital Multimedia

Testamur Title of Degree:	Master of Digital Multimedia
Abbreviation:	MDigMmedia
Home Faculty:	Informatics
Duration:	1 year (2 sessions) or part-time equivalent
Total Credit Points:	48
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	1542
CRICOS Code:	046873D

Overview

Production units that write multimedia software for media creation and presentation via the web, videos, education, computer games or interactive DVDs require employees that have appropriate creative, as well as technical skills. This degree is designed to provide IT graduates with the opportunity to develop skills in both these areas through training in multimedia programming and creation, and in the use of professional multimedia tools.

Entry Requirements/Assumed Knowledge

A degree equivalent to a three-year Australian Bachelor degree with a major in Computer Science, Information Technology, Business Information Systems, Computer, Electrical or Telecommunications Engineering or related area, with at least a 60% average; or a Master of Computer Studies degree, or equivalent.

Applicants will also be required to submit a résumé and a photograph or image that they have produced with a half page essay on the topic "Why I took this photograph or created this image". Hard copy of image/photo must be provided with application.

Course Requirements

Candidates must successfully complete 8 subjects, including:

1) Two Core Subjects (12cp); and

2) Six subjects (36cp) chosen from the list of electives below, or four subjects (24cp) plus the Multimedia Project (12cp).

Course Program

Subjects		Session	Credit Points
Core Subjects			
ITCS940	Multimedia Programming Foundations	Autumn	6
DESN921	Creative Industries – Design for Interactive Multimedia	Spring	6
Elective Subjects			
Plus 36 credit points from the following:			
CSCI944	Perception and Planning	Spring	6
CSCI946	Multimedia Studies	Autumn	6
ECTE996	Multimedia Communications	Spring/ Autumn	6
EDGI911	Information Technology in Education and Training	Autumn	6
ENGG923	Advanced Digital Sound & Imaging Techniques	n/o 2006	6
ITCS932	Web Design	Spring	6
ITCS941	Multimedia Graphics	Autumn	6
ITCS942	Multimedia 3D Modelling and Animation	Spring	6
ITCS943	Game Design and Programming	Autumn	6
ITCS945	Multimedia Project	Spring	12

Master of Electronic Commerce

Testamur Title of Degree:	Master of Electronic Commerce
Abbreviation:	MElecComm
Home Faculty:	Informatics
Duration:	1 year (2 sessions) or part-time equivalent
Total Credit Points:	48
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	1518
CRICOS Code:	042561G

Overview

This degree is designed to prepare managers for the Electronic Commerce world. The recent surge in the use of the Internet to conduct all forms of business has left many graduates without the required skills to maximise their effectiveness in the new business economy. Employees skilled in electronic commerce concepts and practices will be well placed to operate more effectively and take advantage of the opportunities of doing business in the e-world.

Entry Requirements/Assumed Knowledge

A degree equivalent to a three-year Australian Bachelor degree with at least a 60% average, in Computer Science, Information Technology, Information Systems, Computer or Telecommunications Engineering, Commerce, Management or a related discipline.

An intensive five-week Pathways into Postgraduate Informatics program is offered through Wollongong University College for those with little IT background.

Course Requirements

Candidates must successfully complete 8 subjects, including:

1) Two Core Subjects (12cp);
2) Two subjects (12cp) from Group A (Applied eCommerce);
3) Two subjects (12cp) from Group B (eCommerce Management); and
4) Two electives (12cp) to be chosen from subjects in Group A, B or C or any other subject approved by the Course Coordinator/s prior to commencement.

Note: Any advanced standing granted for this course will be deemed to be Electives not Core. Students must still complete 12 credit points from Group A and 12 credit points from Group B.

Course Program

Subjects		Session	Credit Points
Core Subjects			
ITCS938	eBusiness Technologies	Autumn	6
BUSS907	Electronic Commerce	Autumn/Spring/ Summer	6
Group A: Applied eCommerce			
Students must choose at least 12 credit points from the following:			
BUSS909	Office Automation and Intranets	n/o 2006	6
IACT901	IT Strategic Planning	Spring	6
IACT906	Business On-Line	Spring	6
IACT924	Corporate Network Design & Implementation	Spring	6
ITCS932	Web Design	Spring	6
ITCS936	Detailed Design of Integrated Solutions for eBusiness	Spring	6
ITCS937	Security, Risk Management & Control in Electronic Commerce	Autumn	6
ITCS940	Multimedia Programming Foundations	Autumn	6
ITCS950	Patterns for eBusiness	Autumn	6
ITCS951	Web Services for Dynamic eBusiness	Spring	6
Group B: eCommerce Management			
Students must choose at least 12 credit points from the following:			
ACCY936	Management & Information Systems	Autumn/Spring	6
BUSS952	Strategic Information Systems Management	Autumn	6
BUSS953	Management of Information Systems Development	Spring	6
ECON915	Electronic Commerce & the Economics of Information	n/o 2006	6
MARK901	Marketing on the Internet	Spring	6
TBS908*	Supply Chain Management	Intake A/Intake C	6
Group C: Elective Subjects			
ACCY901	Accounting for Managers	Autumn/Spring	6
or			
TBS901*	Accounting for Managers	Intake A/Intake C	6
BUSS950	Systems Development Methodologies	Autumn	6
BUSS951	Critical Issues in Information Systems	Spring	6
CSCI946	Multimedia Studies	Autumn	6
IACT917	Information Management	Autumn	6
ITCS933	Software Engineering Requirements & Specifications	Spring	6
ITCS934	Software Process Management	Autumn	6
MARK922	Marketing Management	Autumn	6
or			
TBS904*	Marketing Management	Intake B/Intake D	6
TBS903*	Managing People in Organisations	Intake B/Intake D	6
TBS905*	Economic Analysis of Business Environment	Intake A/Intake C	6
TBS906*	Information Systems for Managers	Intake A/Intake C	6

* Offered by the University of Wollongong Graduate School of Business and Professional Development. Start dates differ from the standard University Calendar.

Other Information

Students may be able to undertake some subjects for this degree at the Sydney Business School. Please refer to the University Subject Database for availability.

Master of Health Informatics

Testamur Title of Degree:	Master of Health Informatics
Abbreviation:	MHealthInfo
Home Faculty:	Informatics
Duration:	1 year (2 sessions) or part time equivalent
Total Credit Points:	48
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	1540
CRICOS Code:	046872E

Overview

Health services in Australia, as in most countries, are experiencing a surge of interest and investment in e-health. This program is designed to provide IT professionals with a better understanding of the specifics of health informatics and provide health professionals with a better understanding of IT within their industry.

The program aims to equip graduates with an understanding of the health sector, and of the application of relevant systems, in order to take on key roles in successful strategy development and health systems projects.

Entry Requirements/Assumed Knowledge

A degree equivalent to a three-year Australian Bachelor degree, with an average of at least 60%, in information technology, computer science or an ICT-related specialisation.

Applicants with a three-year degree in Health Science plus at least one year full-time (or part-time equivalent) employment in a position related to Health will be considered by the Faculty.

Course Requirements

Candidates must successfully complete 8 subjects, including:

1) Three Core Subjects (18cp); and

2) Five subjects (30cp) chosen from the list of electives below, or three subjects (18cp) plus the Research Report (12cp).

Course Program

Subjects		Session	Credit Points
Core Subjects			
IACT917	Information Management	Autumn	6
ITCS929	Concepts and Issues in Healthcare Computing	Spring	6
ITCS930	Introduction to Health Informatics	Autumn	6
Elective Subjects			
Plus at least 30 credit points from the following*:			
GHMD909	Comparative Health Systems: Policies and Politics	Spring	6
GHMD924	Health Information Systems	n/o 2006	6
GHMD983	Statistics in Health Research	Spring	6
IACT901	IT Strategic Planning	Spring	6
IACT902	Applied Project Management	Spring	6
IACT905	Information Technology and Innovation	Autumn	6
IACT906	Business On-Line	Spring	6
IACT940	Research Methodology	Autumn	6
IACT950	Research Report	Spring/ Summer	12
INFO911	Data Mining and Knowledge Discovery	Spring	6
ITCS905	Information Technology B	Spring	6
ITCS908	Citizens' Rights in the Information Society	Autumn	6

or any other subject approved by the Head of School or the Course Co-ordinator/s prior to commencement.

* Not all subjects may be available every year. In addition, an IT background is assumed for some of the listed electives. Students should consult with the course coordinator to ensure appropriate subjects chosen.

Other Information

Students enrolled in the Master of Health Informatics may apply to graduate with a Graduate Certificate in Health Informatics after satisfactory completion of at least 24 credit points, which must include the three core subjects IACT917, ITCS929 and ITCS930, and one 6 credit point elective subject chosen from the above list.

Master of Industry-based Information Technology

Testamur Title of Degree:	Master of Industry-based Information Technology
Abbreviation:	MIIT
Home Faculty:	Informatics
Duration:	1 year (2 sessions) or part-time equivalent
Total Credit Points:	48
Delivery Mode:	Modular face-to-face
Starting Session(s):	Negotiable
Location:	Wollongong/off-shore*†
UOW Course Code:	1512
CRICOS Code:	Not Applicable

* By request.
† This program is not available to international students on-shore.

Overview

This industry-based degree has been specifically tailored for practising IT professionals, providing a deeper understanding of the issues that arise in the implementation and application of IT. The program informs and educates professionals about the organisational, economics, regulatory and socio-technical issues essential to the effective management of information technology.

The degree aims to improve the skills of professionals who are using the latest software technologies by providing a combined program of academic guidance to work-based activities plus traditional academic subjects, which can be offered off-campus in the form of short courses.

Entry Requirements/Assumed Knowledge

Current employment in an information and/or communication technology (ICT) related field with:

- A degree equivalent to a three-year Australian Bachelor degree with an average of at least 60% and demonstrated IT knowledge; **or**
- Qualifications showing an appropriate balance between other academic or professional qualifications, and relevant professional experience in information and/or telecommunications technology.

Ideally, all candidates would have a minimum of two years professional experience in information and/or communication technology. Each application will be considered on its merit.

Note: Enrolment may be through collaborative agreements with companies.

Course Requirements

Candidates must successfully complete the following three components:

1) Core Professional Development (12cp);
2) ITCS949 Industry-based Information Technology Project (12cp); and
3) Four Academic subjects (24cp).

To be awarded with a major study, 3 subjects must be selected from one of the groups of subjects listed below.

Subjects		Session	Credit Points
Software Engineering			
CSCI910	Formal Methods in Software Engineering	Autumn	6
CSCI925	Topics in Software Engineering	n/o 2006	6
CSCI957	Advanced Topics in Database Management	Autumn	6
ITCS933	Software Engineering Requirements and Specifications	Spring	6
ITCS934	Software Process Management	Autumn	6
Electronic Commerce			
IACT901	IT Strategic Planning	Spring	6
IACT906	Business On-Line	Spring	6
IACT919	On-Line Information Services	Spring	6
ITCS931	Advanced Web Application Development	n/o 2006	6
ITCS937	Security, Risk Management and Control in Electronic Commerce	Autumn	6

Information Management

CSCI957	Advanced Topics in Database Management	Autumn	6
IACT916	Organisational Issues in Information Technology	Autumn	6
IACT917	Information Management	Autumn	6
IACT919	On-Line Information Services	Spring	6
IACT926	Information Society, Knowledge Work and Information Technology	n/o 2006	6
ITCS936	Detailed Design of Integrated Solutions for eBusiness	Spring	6

Multimedia

CSCI946	Multimedia Studies	Autumn	6
CSCI963	Advanced Computer Graphics	n/o 2006	6
IACT931	Special Topics in Information Technology A	Autumn	6
ITCS907	Java Programming & Object Oriented Design	Spring	6
ITCS932	Web Design	Spring	6

Enterprise Network Planning, Design and Management

IACT901	IT Strategic Planning	Spring	6
IACT918	Corporate Network Management	Autumn	6
IACT924	Corporate Network Design	Spring	6
ITCS937	Security, Risk Management and Control in Electronic Commerce	Autumn	6

Other Information

Students enrolled in the MIIT may apply to graduate with a Graduate Certificate in Industry-based Information Technology after satisfactory completion of 24 credit points, chosen from any combination of the following:

1) 6cp for Core Professional Development;
2) ITCS949 Industry-based Information Technology Project (12cp);
3) Up to three Academic subjects (18cp) chosen from the above list.

Master of Information & Communication Technology*

*revised structure subject to final approval

Testamur Title of Degree:	Master of Information and Communication Technology
Abbreviation:	MICT
Home Faculty:	Informatics
Duration:	1 year (2 sessions) or part-time equivalent
Total Credit Points:	48
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	581
CRICOS Code:	009250J

Overview

This degree is aimed primarily at graduates working in the ICT industry who will benefit from an in-depth study of the organisational, economic, regulatory and socio-technical issues that arise in the implementation and application of IT, and of how to effectively manage these issues. Candidates may choose to complete a single major in a sub-discipline such as applied e-business technologies, e-business management, corporate network management, corporate network design, information technology management or health informatics.

Entry Requirements/Assumed Knowledge

A degree equivalent to a three-year Australian Bachelor degree, with at least a 60% average, in an area related to ICT (eg Computer Science, Information Technology, Business Information Systems, Computer Engineering, Electrical Engineering, Telecommunications Engineering), or a Graduate Certificate in Information and Communication Technology with at least a 60% average.

Applicants with a degree in any area plus at least one year full-time employment in the ICT industry will be considered.

Students with an average mark of at least 60% in their three-year Bachelor degree, but with little or no background in IT, may be considered.

Course Requirements

1. The degree requires satisfactory completion of 900- level subjects to the value of at least 48 credit points, including:

(a) the core subject ITCS900, Fundamentals of Contemporary Technologies.

(b) four (4) subjects (24cp) selected from the IACT Graduate Subjects List.

(c) an additional three (3) subjects (18cp) selected from the IACT Graduate Subjects List, the CSCI Graduate Subjects List or the Graduate Additional Subjects List.

2. To be awarded with a major study, a candidate shall satisfactorily complete four (4) subjects (24cp) as set out in the relevant program below, within the requirements of 1(b) and (c) above.

Areas of Major Study

Candidates enrolled in this degree may choose to major in:

- Applied e-Business Technologies [MICT01]
- e-Business Management [MICT02]
- Corporate Network Management [MICT03]
- Corporate Network Design [MICT04]
- Information Technology Management [MICT05]
- Health Informatics [MICT06]

Subjects marked with an asterisk (*) are from the Graduate Additional Subjects List or the CSCI Graduate Subjects List. The course requirements allow at most 3 subjects from a list other than the IACT Graduate Subjects List to be counted in the total credit points required for this degree (see course requirement 1(c) above). Candidates who do more than 3 subjects from a list other than the IACT Graduate Subject List will only be allowed to count the first 3 of those subjects towards the total credit points for the degree.

Subjects		Session	Credit Points
Applied e-Business Technologies			
ITCS938	e-Business Technologies	Autumn	6
Plus at least 18 credit points from the following subjects:			
IACT919	Online Information Services	Spring	6
ITCS936	Detailed Design of Integrated Solutions for e-Business	Spring	6
ITCS937	Security, Risk Management & Control in Electronic Commerce	Autumn	6
ITCS950	Patterns for e-Business	Autumn	6
ITCS951	Web Services for Dynamic e-Business	Spring	6
e-Business Management			
IACT906	Business On-Line	Spring	6
Plus at least 18 credit points from the following subjects:			
IACT901	IT Strategic Planning	Spring	6
IACT905	Information Technology and Innovation	Autumn	6
IACT916	Organisational Issues in Information Technology	Autumn	6
IACT919	Online Information Services	Spring	6
TBS908*	Supply Chain Management	Intake A/Intake C	6
Corporate Network Management			
IACT918	Corporate Network Management	Autumn	6
Plus at least 18 credit points from the following subjects:			
CSCI968*	Network Security	Spring	6
ECTE986*	Telecommunications Network Management	n/o 2006	6
IACT901	IT Strategic Planning	Spring	6
IACT916	Organisational Issues in Information Technology	Autumn	6
Corporate Network Design			
IACT924	Corporate Network Design and Implementation	Spring	6
Plus at least 18 credit points from the following subjects:			
CSCI968*	Network Security	Spring	6
ECTE962*	Telecommunications System Modelling	Autumn	6
ECTE982*	Internet Engineering	Spring	6
ECTE992*	Internet Networking Protocols	Autumn/Spring	6
ITCS937	Security, Risk Management & Control in Electronic Commerce	Autumn	6

Note: 4 subjects in the Corporate Network Design major are from the Graduate Additional Subjects List or the CSCI Graduate Subjects List. The course requirements allow at most 3 subjects from a list other than the IACT Graduate Subjects List to be counted in the total credit points required for this degree. Candidates who do more than 3 subjects from a list other than the IACT Graduate Subject List will only be allowed to count the first 3 of those subjects towards the total credit points for the degree.

Information Technology Management			
IACT901	IT Strategic Planning	Spring	6
Plus at least 18 credit points from the following subjects:			
BUSS952*	Strategic Information System Management	Autumn	6
IACT905	Information Technology and Innovation	Autumn	6
IACT916	Organisation Issues in Information Technology	Autumn	6
IACT917	Information Management	Autumn	6

Health Informatics			
ITCS930	Introduction to Health Informatics	Autumn	6
Plus at least 18 credit points from the following subjects:			
GHMD909*	Comparative Health Systems: Policies and Politics	Spring	6
GHMD983*	Statistics in Health Research	Spring	6
IACT916	Organisational Issues in Information Technology	Autumn	6
ITCS929	Concepts and Issues In Healthcare Computing	Spring	6
ITCS952	Exploiting Collaborative Technologies	Spring	6

Note: Not all subjects will be available every year.

Master of Information Technology Management

Testamur Title of Degree:	Master of Information Technology Management
Abbreviation:	MITM
Home Faculty:	Informatics
Duration:	1 year (2 sessions) or part-time equivalent
Total Credit Points:	48
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong/ offshore*
UOW Course Code:	1509
CRICOS Code:	031283E

* By request.

Overview

The organisational challenge of introducing and managing information technology is daunting. Today's business requires IT strategic planning to be an integral part of the organisation's strategic plan.

This degree is aimed primarily at professionals who wish to progress upwards or broaden their career opportunities in the ICT industry, and covers both IT strategic planning and implementation and organisational management.

Entry Requirements/Assumed Knowledge

A degree equivalent to a three-year Australian Bachelor degree with at least a 60% average in an area related to ICT (eg Computer Science, Information Technology, Business Information Systems, Computer Engineering, Electrical Engineering, Telecommunications Engineering).

Applicants with a degree in any area plus at least one year full time employment in the ICT industry will be considered.

Students with an average mark of at least 60% in their three-year Bachelor degree, but with little or no background in IT, may be considered. Under special circumstances, applicants with other academic or professional qualifications, plus a minimum of five years full-time (or 10 years part-time) work experience in the ICT industry, may be considered by the Faculty.

Course Requirements

Candidates must successfully complete eight subjects, including:

1) Four subjects from Group A; and
2) Four subjects from Group B.

Subjects		Session	Credit Points
Group A			
IACT901	IT Strategic Planning	Spring	6
IACT905	Information Technology and Innovation	Autumn	6
IACT906	Business On-Line	Spring	6
IACT916	Organisational Issues in Information Technology	Autumn	6
IACT917	Information Management	Autumn	6
IACT918	Corporate Network Management	Autumn	6
IACT919	On-line Information Services	Spring	6
IACT922	Case Studies in Information Technology Applications	Spring	6
IACT932	Special Topics in Information and Communication Technology B	n/o 2006	6
ITCS936	Detailed Design of Integrated Solutions for eBusiness	Spring	6
ITCS937	Security, Risk Management & Control in Electronic Commerce	Autumn	6

Or any other subject approved by the Head of School, prior to commencement.

Group B			
BUSS952	Strategic Information Systems Management	Autumn	6
MARK901	Marketing on the Internet	Spring	6

TBS901*	Accounting for Managers	Intake A/Intake C	6
TBS902*	Statistics for Decision Making	n/o 2006	6
TBS903*	Managing People in Organisations	Intake B/Intake D	6
TBS904*	Marketing Management	Intake B/Intake D	6
TBS906*	Information Systems for Managers	Intake A/Intake C	6
TBS908*	Supply Chain Management	Intake A/Intake C	6
TBS920*	International Business Strategy	Intake B/Intake D	6
TBS929*	Management of Process Innovation	n/o 2006	6
TBS950*	Quality in Management	n/o 2006	6
TBS981*	Employment Relations in an International Context	Intake A/Intake C	6

Or any other subject approved by the Head of School, prior to commencement.

*Offered by the University of Wollongong Graduate School of Business and Professional Development. Start dates differ from the standard University Calendar. Quotas may apply to TBS subjects offered at the Sydney Business School.

Credit Towards Other Courses

This degree articulates into the Master of Business Administration (MBA). Only a further seven subjects will be required to gain the MBA degree. For further information on the MBA, please refer to the Graduate School of Business and Professional Development.

Graduate Certificate in Health Informatics

Testamur Title of Degree:	Graduate Certificate in Health Informatics
Abbreviation:	GCertHealthInfo
Home Faculty:	Informatics
Duration:	6 months (1 session) or part-time equivalent
Total Credit Points:	24
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	1146
CRICOS Code:	046871F

Overview

This graduate certificate is designed as an early exit point from the Master of Health Informatics degree.

Entry Requirements/Assumed Knowledge

Refer to Master of Health Informatics.

Course Requirements

Students enrolled in the Master of Health Informatics may apply to graduate with the Graduate Certificate in Health Informatics after satisfactory completion of 24 credit points, which must include the three core subjects IACT917, ITCS929 and ITCS930, and one 6 credit point subject chosen from the electives listed for the Master of Health Informatics.

Graduate Certificate in Industry-based Information Technology

Testamur Title of Degree:	Graduate Certificate in Industry-based Information Technology
Abbreviation:	GCertIIT
Home Faculty:	Informatics
Duration:	6 months (1 session) or part-time equivalent
Total Credit Points:	24
Delivery Mode:	Modular face-to-face
Starting Session(s):	Negotiable
Location:	Wollongong/off-shore*†
UOW Course Code:	1140
CRICOS Code:	Not Applicable

* By request. † This program is not available to international students on-shore.

Overview

This graduate certificate is designed as an early exit point from the Master of Industry-based Information Technology (MIIT) degree.

Entry Requirements/Assumed Knowledge

Refer to Master of Industry-based Information Technology.

Course Requirements

Students enrolled in the MIIT may apply to graduate with a Graduate Certificate in Industry-based Information Technology after satisfactory completion of 24 credit points, chosen from any combination of the following:

1) 6cp for Core Professional Development
2) ITCS949 Industry-based Information Technology Project (12cp)
3) Up to three Academic subjects (18cp) chosen from the subjects listed under the MIIT.

Graduate Certificate in Information and Communication Technology

Testamur Title of Degree:	Graduate Certificate in Information and Communication Technology
Abbreviation:	GCertInfoTech
Home Faculty:	Informatics
Duration:	6 months (1 session) or part-time equivalent
Total Credit Points:	24
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	1111
CRICOS Code:	020196F

Overview

This program introduces information and communication technology (ICT) concepts, and provides students with the opportunity to obtain the knowledge and skills required to effectively solve organisational, economic, regulatory and socio-technical problems that arise in the implementation and application of information technology (IT).

Entry Requirements/Assumed Knowledge

A degree equivalent to a three-year Australian Bachelor degree in an area related to ICT (eg, Computer Science; Information Technology; Business Information Systems; or Electrical, Computer or Telecommunications Engineering). Where academic qualifications are unrelated to the ICT discipline, it is essential that the applicant has relevant ICT work experience, normally at least one year full-time.

Applicants with other professional or academic qualifications not related to ICT (minimum duration 3 years full-time), plus a minimum of three years full-time work experience (or part-time equivalent) in the ICT industry, may be considered by the Faculty.

Course Requirements

The degree requires satisfactory completion of 900- level subjects to the value of at least 24 credit points (4 subjects) chosen from the IACT Graduate Subjects List.

Credit Towards Other Courses

Students who qualify for the Graduate Certificate in Information and Communication Technology and who have achieved an average mark of at least 60% will be able to proceed to the Master of Information and Communication Technology. Advanced standing of 24 credit points will be granted towards the Masters degree.

The completion of the Masters degree will require the satisfactory completion of a further 24 credit points as specified in the schedule for that program.

Other Information

Prior to the conferring of a Master of Information and Communication Technology upon a candidate who holds a Graduate Certificate in Information and Communication Technology from this University, the candidate shall surrender the testamur and all rights relating to the Graduate Certificate.

CSCI Graduate Subjects List

Subjects		Session	Credit Points
CSCI907	Corba & Enterprise JAVA	Spring	6
CSCI908	Distributed JAVA	n/o 2006	6
CSCI910	Formal Methods in Software Engineering	Autumn	6
CSCI925	Topics in Software Engineering	n/o 2006	6
CSCI944	Perception and Planning	Spring	6
CSCI945	Parallel Computing	n/o 2006	6

CSCI946	Multimedia Studies	Autumn	6
CSCI957	Advanced Topics in Database Management	Autumn	6
CSCI963	Advanced Computer Graphics	n/o 2006	6
CSCI964	Neural Computing	Autumn	6
CSCI965	Design and Analysis of Algorithms	n/o 2006	6
CSCI966	Coding for Secure Communication	Autumn	6
CSCI967	Complexity Theory	n/o 2006	6
CSCI968	Network Security	Spring	6
CSCI971	Computer Security	Spring	6
CSCI974	Systems Analysis	n/o 2006	6
CSCI991	Project	Annual	12
INFO911	Data Mining and Knowledge Discovery	Spring	6
INFO912	Mathematics for Cryptography	Autumn	6
INFO913	Information Theory	Spring	6
ITCS921	Database Design & Implementation	Autumn	6
ITCS931	Advanced Web Application Development	n/o 2006	6
ITCS932	Web Design	Spring	6
ITCS933	Software Engineering Requirements and Specifications	Spring	6
ITCS934	Software Process Management	Autumn	6
ITCS940	Multimedia Programming Foundations	Autumn	6
ITCS941	Multimedia Graphics	Autumn	6
ITCS942	Multimedia 3D Modelling and Animation	Spring	6
ITCS943	Game Design and Programming	Autumn	6

IACT Graduate Subjects List

Subjects		Session	Credit Points
IACT901	IT Strategic Planning	Spring	6
IACT902	Applied Project Management	Spring	6
IACT904	International Telecommunications Policy Issues	n/o 2006	6
IACT905	Information Technology and Innovation	Autumn	6
IACT906	Business On-Line	Spring	6
IACT916	Organisational Issues in Information Technology	Autumn	6
IACT917	Information Management	Autumn	6
IACT918	Corporate Network Management	Autumn	6
IACT919	On-line Information Services	Spring	6
IACT922	Case Studies in Information Technology Applications	Spring	6
IACT924	Corporate Network Design and Implementation	Spring	6
IACT926	Information Society, Knowledge Work and Information Technology	n/o 2006	6
IACT930	Special Topics in Information and Communication Technology	n/o 2006	6
IACT931	Special Topics in Information and Communication Technology A	Autumn	6
IACT932	Special Topics in Information and Communication Technology B	n/o 2006	6
IACT940	Research Methodology	Autumn	6
IACT950	Research Report	Spring/Summer	12
ITCS900	Fundamentals of Contemporary Technologies	Autumn/Spring	6
ITCS929	Concepts and Issues in Healthcare Computing	Spring	6
ITCS930	Introduction to Health Informatics	Autumn	6
ITCS936	Detailed Design of Integrated Solutions for eBusiness	Spring	6
ITCS937	Security, Risk Management & Control in Electronic Commerce	Autumn	6
ITCS938	eBusiness Technologies	Autumn	6
ITCS950	Patterns for eBusiness	Autumn	6
ITCS951	Web Services for Dynamic eBusiness	Spring	6
ITCS952	Exploiting Collaborative Technologies	Spring	6

Graduate Additional Subjects List

Subjects		Session	Credit Points
CSCI981	Preliminary Topics in Computer Science B	n/o 2006	6
CSCI982	Preliminary Topics in Computer Science C	n/o 2006	6
CSCI983	Preliminary Topics in Computer Science D	n/o 2006	6
DESN921	Creative Industries: Design for Interactive Multimedia	Spring	6
GHMD909	Comparative Health Systems: Policies and Politics	Spring	6
GHMD983	Statistics in Health Research	Spring	6
ITCS922	Computer Security	Autumn	6

Any subject at 900- level from: BUSS, MATH, STAT, ECTE or TBS.

Any other 900- level subject must be approved by the Head of School prior to commencing the subject.

Note that quotas may apply to TBS subjects offered at the Sydney Business School.

School of Mathematics and Applied Statistics

Doctor of Philosophy

Testamur Title of Degree:	Doctor of Philosophy
Abbreviation:	PhD
Home Faculty:	Informatics
Duration:	3 years (6 sessions) or part-time equivalent
Total Credit Points:	48 cp per year
Delivery Mode:	Supervised individual research
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	201
CRICOS Code:	001244E

Overview

Doctor of Philosophy (PhD) candidates undertake in-depth research in order to make an original contribution to the body of knowledge in mathematical or statistical studies. This qualification can lead to, or enhance, an academic career and is highly regarded by private and public sector employers.

Entry Requirements/Assumed Knowledge

A four-year Honours Bachelor degree in any relevant area of Mathematics or Statistics (Class II, Division 2 or higher); or a Master of Science – Research (Mathematics) or (Statistics) with a strong performance in the 48 credit point thesis, or equivalent.

Course Requirements

This program is 100% by thesis (carrying weighting of 48 credit points per year). Students may be required to attend lectures in relevant topics on occasion throughout the program.

Current Research Areas

Engineering and Applied Mathematics

Applied non-linear dynamical systems
Bioreactor engineering
Chemical reaction engineering
Combustion theory
Computational environmental fluid dynamics
Computational mathematics
Elasticity and fracture mechanics
Granular materials
Lie group analysis of non-linear differential equations
Microwave heating
Nanotechnology
Non-linear continuum mechanics including large elastic deformations of rubber-like materials
Non-linear waves
Oceanography
Rail development

Statistical and Survey Methodology

e-Education
Epidemiology
Experimental design
Goodness of fit
Image analysis
Multivariate analysis
Neural networks

Nonparametrics
Quasi-likelihood
Sample survey design, analysis and methodology
Spatial statistics
Statistical decision theory
Statistical quality control
Time series analysis

Mathematical Analysis

Algebra
Analysis
Harmonic analysis and wavelets
Group theory
Topology and chaos
Logic and partial differential equations
Topological groups
Measure theory
Number theory
Functional analysis
Combinatorial designs

Mathematical Finance

Other Information

It is possible to downgrade enrolment from a PhD to a Master of Science - Research, with the permission of the Head of School.

Master of Science - Research (Mathematics)

Testamur Title of Degree:	Master of Science - Research
Abbreviation:	MSc-Res
Home Faculty:	Informatics
Duration:	1.5 years (3 sessions) or part-time equivalent
Total Credit Points:	72
Delivery Mode:	Supervised individual research and face-to-face classes
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	1304
CRICOS Code:	042542M

Overview

This program is designed to consolidate and expand students' knowledge at an advanced level in their area of interest in mathematics. The degree will provide students with the skills required for sound practice in mathematics research in preparation for doctoral level research.

Entry Requirements/Assumed Knowledge

This is primarily a research degree for those who have completed an Honours Bachelor degree at a standard of Class II, Division 2 or higher in Mathematics, or an equivalent Masters by coursework degree in Mathematics.

Entry from a relevant Pass Bachelors degree, or Pass Bachelor degree and Graduate Diploma, with a very good academic record is also possible.

Advanced Standing

Candidates with an Honours Bachelor degree at a standard of Class II, Division 2 or higher, or an equivalent Masters by coursework degree, may be given exemption from all, or some, of the 24 credit points of coursework.

Course Requirements

The degree is normally 72 credit points, consisting of a 48 credit point research thesis and 24 credit points of coursework. The program must be completed in a maximum time of two years full time (or four years part-time) and requires satisfactory completion of the following:

1) 24 credit points of subjects chosen from the 900- level Mathematics subjects listed below, which together provide research skills and competencies required to complete a research project in Mathematics.

2) 48 credit point thesis.

The registration of a candidate will be subject to termination if that candidate fails subjects to the total value of 18 or more credit points.

Each candidate shall have a supervisor appointed on the recommendation of the Head of the School of Mathematics and Applied Statistics.

900-Level Mathematics Subjects

Subjects		Session	Credit Points
MATH902	Solution of Differential Equations by One-Parameter Groups	Autumn	6
MATH903	Mean Periodic Functions	n/o 2006	6
MATH904	Stability for Partial Differential Equations	n/o 2006	6
MATH905	Functional Analysis and Control Theory	n/o 2006	6
MATH912	Mathematics of Microwave Heating	Autumn	6
MATH913	Fluid Mechanics and Wave Theory	n/o 2006	6
MATH915	Applied Nonlinear Partial Differential Equations	n/o 2006	6
MATH916	Heat Conduction and Moving Boundary Problems	n/o 2006	6
MATH917	Advanced Numerical Analysis	n/o 2006	6
MATH918	Computational Fluid Mechanics	n/o 2006	6
MATH921	Advanced Functional Analysis	n/o 2006	6
MATH923	Measure and Integration	n/o 2006	6
MATH924	Distributions	n/o 2006	6
MATH925	Topics in Algebra	n/o 2006	6
MATH926	Logic and Set Theory	Spring	6
MATH927	Combinatory Logic	n/o 2006	6
MATH928	Advanced Measure Theory	n/o 2006	6
MATH929	General Topology	n/o 2006	6
MATH931	Statistical Behaviour in Dynamical Systems	Spring	6
MATH971	Advanced Topics in Applied Mathematics A	Autumn	6
MATH972	Advanced Topics in Applied Mathematics B	Spring	6
MATH973	Advanced Topics in Pure Mathematics A	Autumn	6
MATH974	Advanced Topics in Pure Mathematics B	Spring	6
MATH980	Preliminary Topics in Mathematics A	Autumn	6
MATH981	Preliminary Topics in Mathematics B	Spring	6

Note: Subjects offered may vary each year. Check the subject database or contact the School for up-to-date subject information.

Current Research Areas

For areas of research available to candidates undertaking the Master of Science – Research (Mathematics), please refer to Current Research Areas under the Doctor of Philosophy entry.

Other Information

Before the award Master of Science - Research (Mathematics) is conferred on a candidate who holds a testamur of the University of Wollongong for the degree of Master of Mathematics, the candidate shall surrender the testamur and the corresponding rights to the degree of Master of Mathematics.

It is possible to upgrade enrolment from a Master of Science – Research to a PhD, in certain circumstances. Consult the following Research Student Centre website for details: www.uow.edu.au/research/rsc/hdrhb/course-transfers.html

Master of Science - Research (Statistics)

Testamur Title of Degree:	Master of Science - Research
Abbreviation:	MSc-Res
Home Faculty:	Informatics
Duration:	1.5 years (3 sessions) or part-time equivalent
Total Credit Points:	72
Delivery Mode:	Supervised individual research and face-to-face classes
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	1304
CRICOS Code:	042542M

Overview

This program is designed to consolidate and expand students' knowledge at an advanced level in their area of interest in statistics. The degree will further enhance the analytical and communication skills required by a professional statistician, as well as provide students with the skills required for sound practice in statistics research in preparation for doctoral level research.

Entry Requirements/Assumed Knowledge

This is primarily a research degree for those who have completed an Honours Bachelor degree at a standard of Class II, Division 2 or higher in Statistics, or an equivalent Masters by coursework degree in Statistics.

Entry from a relevant Pass Bachelor degree, or Pass Bachelor degree and Graduate Diploma, with a very good academic record is also possible.

Advanced Standing

Candidates with an Honours Bachelor degree at a standard of Class II, Division 2 or higher, or an equivalent Masters by coursework degree may be given exemption from all, or some, of the 24 credit points of coursework.

Course Requirements

The degree is normally 72 credit points, consisting of a 48 credit point research thesis and 24 credit points of coursework. The program must be completed in a maximum time of two years full time (or four years part-time) and requires satisfactory completion of the following:

1) 24 credit points of subjects chosen from the 900- level Statistics subjects listed below, which together provide research skills and competencies required to complete a research project in Statistics.
2) 48 credit point thesis.

The registration of a candidate will be subject to termination if that candidate fails subjects to the total value of 18 or more credit points.

Each candidate shall have a supervisor appointed on the recommendation of the Head of the School of Mathematics and Applied Statistics.

900-Level Statistics Subjects

Subjects		Session	Credit Points
STAT901	Modern Inference	Autumn	6
STAT902	Advanced Data Analysis	Autumn	6
STAT903	Survey Design and Analysis	Spring	6
STAT904	Statistical Consulting	Spring	6
STAT905	Time Series	n/o 2006	6
STAT906	Experimental Design	n/o 2006	6
STAT941	Statistical Quality Control 1	n/o 2006	6
STAT942	Design and Analysis for Quality Control	n/o 2006	6
STAT944	Regression and Observational Studies	n/o 2006	6
STAT971	Preliminary Topics in Statistics A	Autumn	6
STAT972	Preliminary Topics in Statistics B	Autumn/Spring	6
STAT981	Advanced Topics in Statistics A	Autumn	6
STAT982	Advanced Topics in Statistics B	n/o 2006	6
STAT983	Advanced Topics in Statistics C	n/o 2006	6

Note: Subjects offered may vary each year. Check the subject database or contact the School for up-to-date subject information..

Current Research Areas

For areas of research available to candidates undertaking the Master of Science – Research (Statistics), please refer to Current Research Areas under the Doctor of Philosophy entry.

Other Information

Before the award Master of Science - Research (Statistics) is conferred on a candidate who holds a testamur of the University of Wollongong for the degree of Master of Statistics; the candidate shall surrender the testamur and the corresponding rights to the degree of Master of Statistics.

It is possible to upgrade enrolment from a Master of Science – Research to a PhD, in certain circumstances. Consult the following Research Student Centre website for details: www.uow.edu.au/research/rsc/hdrhb/course-transfers.html

Master of Mathematics

Testamur Title of Degree:	Master of Mathematics
Abbreviation:	MMath
Home Faculty:	Informatics
Duration:	1 year (2 sessions) or part-time equivalent
Total Credit Points:	48
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	586
CRICOS Code:	012130B

Overview

This program is designed to consolidate and expand the mathematics knowledge gained by a student in an undergraduate program and to develop skills in undertaking mathematical research projects.

Entry Requirements/Assumed Knowledge

A degree equivalent to a three-year Australian Bachelor degree with a major in a relevant area of Mathematics, or equivalent.

Applicants with a tertiary qualification containing a minimum of two years of mathematics may be considered.

Course Requirements

The degree will normally occupy two sessions of full-time study or four sessions of part-time study, and requires satisfactory completion of at least 48 credit points, as set out in the following course program.

The registration of a candidate will be subject to termination if that candidate fails subjects to the total value of 18 or more credit points.

Each candidate shall have a supervisor appointed on the recommendation of the Head of the School of Mathematics and Applied Statistics.

Course Program

Subjects		Session	Credit Points
MATH991	Project	Annual	12
Plus at least 36 credit points chosen from the following list, as approved by the Head of School:			
MATH902	Solution of Differential Equations by One-Parameter Groups	Autumn	6
MATH903	Mean Periodic Functions	n/o 2006	6
MATH904	Stability for Partial Differential Equations	n/o 2006	6
MATH905	Functional Analysis and Control Theory	n/o 2006	6
MATH912	Mathematics of Microwave Heating	Autumn	6
MATH913	Fluid Mechanics and Wave Theory	n/o 2006	6
MATH915	Applied Nonlinear Partial Differential Equations	n/o 2006	6
MATH916	Heat Conduction and Moving Boundary Problems	n/o 2006	6
MATH917	Advanced Numerical Analysis	n/o 2006	6
MATH918	Computational Fluid Mechanics	n/o 2006	6
MATH921	Advanced Functional Analysis	n/o 2006	6
MATH923	Measure and Integration	n/o 2006	6
MATH924	Distributions	n/o 2006	6
MATH925	Topics in Algebra	n/o 2006	6
MATH926	Logic and Set Theory	Spring	6
MATH927	Combinatory Logic	n/o 2006	6
MATH928	Advanced Measure Theory	n/o 2006	6
MATH929	General Topology	n/o 2006	6
MATH931	Statistical Behaviour in Dynamical Systems	Spring	6
MATH971	Advanced Topics in Applied Mathematics A	Autumn	6
MATH972	Advanced Topics in Applied Mathematics B	Spring	6
MATH973	Advanced Topics in Pure Mathematics A	Autumn	6
MATH974	Advanced Topics in Pure Mathematics B	Spring	6
MATH980	Preliminary Topics in Mathematics A	Autumn	6
MATH981	Preliminary Topics in Mathematics B	Spring	6

Or any other 900- level subjects offered by the School of Mathematics and Applied Statistics, as approved by the Head of School.

Note: Subjects offered may vary each year. Check the Subject Database or contact the School for up-to-date subject information.

In exceptional circumstances and subject to approval by the Head of the School, up to two 6 credit point subjects may be replaced by 900- level subjects of the same value offered by Units other than the School of Mathematics and Applied Statistics.

Other Information

Students who satisfactorily complete the Masters degree are eligible to apply for entry to the Master of Science - Research (Mathematics).

Master of Statistics

Testamur Title of Degree:	Master of Statistics
Abbreviation:	MStat
Home Faculty:	Informatics
Duration:	1 year (2 sessions) or part-time equivalent
Total Credit Points:	48
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	575
CRICOS Code:	016121D

Overview

This program is designed to upgrade statistical skills, and to educate the candidate to undertake advanced statistical work in industry, commerce or government, including the ability to communicate effectively with the users of their skills.

Entry Requirements/Assumed Knowledge

A degree equivalent to a three-year Australian Bachelor degree with a major in Statistics (or a Graduate Diploma in Statistics), or equivalent. Applicants with a tertiary qualification containing a minimum of two years of statistics may be considered.

Course Requirements

The degree will normally occupy two sessions of full-time study or four sessions of part-time study, and requires satisfactory completion of at least 48 credit points, as set out in the following course program.

The registration of a candidate will be subject to termination if that candidate fails subjects to the total value of 18 or more credit points.

Each candidate shall have a supervisor appointed on the recommendation of the Head of the School of Mathematics and Applied Statistics.

Course Program

Subjects		Session	Credit Points
STAT990	Minor Project	Autumn/Spring	6
or, with the approval of the Head of School, candidates may replace STAT990 with:			
STAT991	Project	Annual	12
Electives			
Plus at least 42 credit points (or 36 credit points if STAT991 is undertaken) chosen from the following list, as approved by the Head of School:			
STAT901	Modern Inference	Autumn	6
STAT902	Advanced Data Analysis	Autumn	6
STAT903	Survey Design and Analysis	Spring	6
STAT904	Statistical Consulting	Spring	6
STAT905	Time Series	n/o 2006	6
STAT906	Experimental Design	n/o 2006	6
STAT920	Stochastic Methods in Finance	Spring	6
STAT941	Statistical Quality Control 1	n/o 2006	6
STAT942	Design and Analysis for Quality Control	n/o 2006	6
STAT944	Regression and Observational Studies	n/o 2006	6
STAT971	Preliminary Topics in Statistics A	Autumn	6
STAT972	Preliminary Topics in Statistics B	Autumn/Spring	6
STAT981	Advanced Topics in Statistics A	Autumn	6
STAT982	Advanced Topics in Statistics B	n/o 2006	6
STAT983	Advanced Topics in Statistics C	n/o 2006	6

Or any other 900- level subjects offered by the School of Mathematics and Applied Statistics, as approved by the Head of School.

Note: Subjects offered may vary each year. Check the subject database or contact the School for up-to-date subject information.

In exceptional circumstances and subject to approval by the Head of the School, up to two 6 credit point subjects may be replaced by other 900- level subjects of the same or greater value.

Other Information

Students who satisfactorily complete the Masters degree are eligible to apply for entry to the Masters of Science – Research (Statistics).

Master of Financial Mathematics

Testamur Title of Degree:	Master of Financial Mathematics
Abbreviation:	MFinMath
Home Faculty:	Informatics
Duration:	1 year (2 sessions) or part-time equivalent
Total Credit Points:	48
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	1548
CRICOS Code:	050301F

Overview

To provide students with a first degree in areas such as mathematics, finance, economics, business, engineering or science with training in quantitative financial analysis and a range of analytical, statistical, computational and modelling skills needed for the formulation, implementation and evaluation of models in the financial sector to structure transactions, evaluate financial derivatives, manage risk and construct investment strategies.

Entry Requirements/Assumed Knowledge

A degree equivalent to a three-year Australian Bachelor degree with a major in mathematics or statistics.

Applicants with other three-year degrees will be considered if they possess a substantial background in mathematics (including calculus, linear algebra, differential equations, probability and statistics) equivalent to at least a second-year Bachelor level.

Course Requirements

The degree will normally occupy two sessions of full-time study or four sessions of part-time study, and requires satisfactory completion of at least 48 credit points, as set out in the following course program.

Course Program

Subjects		Session	Credit Points
FIN920	Advanced Risk & Insurance	Spring	6
FIN921	Managerial Finance	Autumn/Spring	6
MATH941	Financial Calculus	Autumn	6
MATH942	Numerical Methods	Spring	6
MATH943	Practitioners' Seminars	Annual	0
STAT920	Stochastic Methods in Finance	Spring	6
STAT921	Multiple Regression & Time Series	Spring	6
Plus one STAT and one FIN subject chosen from:			
STAT922	Statistical Inference & Multivariate Analysis	Spring	6
STAT923	Applied Probability & Financial Risk	Autumn	6
FIN922	Advanced Investment Analysis	Autumn	6
FIN923	Advanced Portfolio Management	Spring	6

Graduate Diploma in Statistics

Testamur Title of Degree:	Graduate Diploma in Statistics
Abbreviation:	GDipStat
Home Faculty:	Informatics
Duration:	1 year (2 sessions) or part-time equivalent
Total Credit Points:	48
Delivery Mode:	Face-to-face

Starting Session(s):	Autumn/Spring
Location:	Wollongong
UOW Course Code:	665
CRICOS Code:	001251F

Overview

This program is intended for students with limited or no background in statistics but who have the equivalent of first year mathematics. Students can update or improve their statistical skills to Bachelor level and gain entry to the Master of Statistics program.

Entry Requirements/Assumed Knowledge

A degree equivalent to a three-year Australian Bachelor degree, which must include the equivalent of first-year mathematics.

Course Requirements

The graduate diploma will normally occupy two sessions of full-time study or four sessions of part-time study, and requires the satisfactory completion of at least 48 credit points, with the following requirements:

1) At least 36 credit points are to be chosen from those subjects listed in the Bachelor of Mathematics and Master of Statistics course structures, including at least 24 credit points of 300-level or 900-level subjects.
2) Candidates are not to include subjects which, in the opinion of the Head of School, are equivalent in content to those for which credit has already been obtained towards some other degree or diploma.
3) The chosen program is to be approved by the Head of School prior to enrolment.

Other Information

Students who satisfactorily complete the Graduate Diploma are eligible to apply for entry to the Master of Statistics.