

Faculty of Informatics

Member Units

School of Electrical, Computer and Telecommunications Engineering

School of Information Technology and Computer Science

School of Mathematics and Applied Statistics

Degrees Offered

Single Degrees

Bachelor of Computer Bioinformatics

Bachelor of Computer Geoinformatics

Bachelor of Computer Science

Bachelor of Engineering (Computer Engineering)

Bachelor of Engineering (Electrical Engineering)

Bachelor of Engineering (Internet Engineering)

Bachelor of Engineering (Telecommunications Engineering)

Bachelor of Information and Communication Technology

Bachelor of Information Technology

Bachelor of Internet Science and Technology

Bachelor of Mathematics

Bachelor of Mathematics (Advanced)

Bachelor of Mathematics and Economics

Bachelor of Mathematics and Finance

Bachelor of Mathematics Education

Bachelor of Mathematical Sciences

Double Degrees

Bachelor of Computer Science - Bachelor of Laws

Bachelor of Computer Science - Bachelor of Science

Bachelor of Creative Arts - Bachelor of Computer Science

Bachelor of Engineering - Bachelor of Arts

Bachelor of Engineering - Bachelor of Commerce

Bachelor of Engineering - Bachelor of Mathematics

Bachelor of Engineering - Bachelor of Science

Bachelor of Engineering - Bachelor of Computer Science

Bachelor of Engineering - Bachelor of Mathematics

Bachelor of Information and Communication Technology - Bachelor of Laws

Bachelor of Mathematics - Bachelor of Computer Science

Bachelor of Mathematics - Bachelor of Laws

Bachelor of Science – Bachelor of Mathematics

Bachelor of Computer Bioinformatics

Testamur Title of Degree:	Bachelor of Computer Bioinformatics
Abbreviation:	BCompBioinf
Home Faculty:	Informatics
Duration:	4 years or part-time equivalent
Total Credit Points:	198
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn
Standard Course Fee:	HECS (local); International \$8,900 per session
Location:	Wollongong
UOW Course Code:	890
UAC Code:	754102
CRICOS Code:	039554M

Overview

This degree is designed to produce graduates who are, first and foremost, highly trained in relevant areas of computer science and mathematics but who also possess knowledge and skills in molecular biology and related biological science.

The degree has two strands, non-Honours (coursework) and Honours (including a substantial research project).

Entry Requirements / Assumed Knowledge

Approximate UAI: 77

Assumed Knowledge: Any two units of English plus Mathematics.

For entry requirements for students 21 and over or international students, please refer to the relevant prospectus.

Course Requirements

To qualify for the award of the degree Bachelor of Computer Bioinformatics (BCompBioinf), students must complete 198 credit points as detailed, over four years full-time (or equivalent part-time). Students who achieve a WAM of greater than 67.5 will undertake the Honours strand in their final year, while other students will continue in the non-Honours strand.

Course Program

Subjects	Session	Credit Points
Year 1		
BIOL103 Molecules, Cells and Organisms	Spring	6
BIOL104 Evolution, Biodiversity and Environment	Autumn	6
CSCI103 Algorithms and Problem Solving	Autumn	6
CSCI114 Procedural Programming	Spring	6
Plus		
CHEM101 Chemistry 1A: Introductory Physical and General Chemistry	Autumn	6
or		
CHEM104 Chemistry 1D (Introductory Chemistry)	Autumn	6
Plus		
CHEM102 Chemistry 1B: Introductory Organic & Physical Chemistry	Spring	6
or		
CHEM105 Chemistry 1E (Introductory Chemistry)	Spring	6
Plus		
MATH141 Mathematics 1C Part 1	Autumn	6
or		
MATH187 Mathematics 1A Part 1	Autumn	6
Plus		
MATH142 Mathematics 1C Part 2	Spring	6
or		
MATH188 Mathematics 1A Part 2	Spring	6
Year 2		
BIOL213 Principles of Biochemistry	Autumn	6
BIOL215 Introductory Genetics	Spring	6
CSCI124 Object Programming	Autumn	6
CSCI204 The C Family and Unix	Spring	6
CSCI222 Systems Development	N/A in 2004	6
CSCI235 Databases	Spring	6
Plus		
MATH283 Mathematics 2E for Engineers Part 1	Autumn	6
or		
MATH203 Linear Algebra	Autumn	6
Plus one CSCI 200-level elective subject		6

Year 3

BIOL303	Biotechnology: Applied Molecular and Cell Biology	Autumn	8
CHEM320	Bioinformatics: From Genome to Structure	Spring	8
CSCI315	Database Design and Implementation	Autumn	6
CSCI321	Project	Annual	12
MATH111	Applied Mathematical Modelling 1	Spring	6
STAT231	Probability and Random Variables	Autumn	6
Plus			
STAT304	Operations Research and Applied Probability	Spring	6
or			
CSCI323	Artificial Intelligence	Spring	6

Year 4 (Honours) - WAM >67.5

BIOL320	Molecular Cell Biology	Autumn	8
INFO403	Computer Bioinformatics Honours Project	Annual	24
INFO411	Data Mining and Knowledge Discovery	Spring	6
Plus			
STAT304	Operations Research and Applied Probability	Spring	6
Or			
CSCI464	Neural Computing	Autumn	6
Plus one 300/400 Level elective chosen from the Biology, Computer Science or Mathematics Schedules.			6 or 8

Year 4 (Non-Honours)

BIOL320	Molecular Cell Biology	Autumn	8
INFO411	Data Mining and Knowledge Discovery	Spring	6
Plus			
STAT304	Operations Research and Applied Probability	Spring	6
or			
CSCI464	Neural Computing	Autumn	6
Plus 300/400 level electives chosen from the Biology, Computer Science or Mathematics Schedules, of which at least 24 credit points must be at 400 level.			30

Honours

To qualify for an award of Honours, students must satisfactorily complete the requirements listed in Year 4 (Honours) of the Course Program above. The classes of Honours awarded are defined in the Course Rules.

Bachelor of Computer Geoinformatics

Testamur Title of Degree:	Bachelor of Computer Geoinformatics
Abbreviation:	BCompGeoinf
Home Faculty:	Informatics
Duration:	4 years or part-time equivalent
Total Credit Points:	192
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn
Standard Course Fee:	HECS (local); International \$8,900 per session
Location:	Wollongong
UOW Course Code:	793
UAC Code:	754103
CRICOS Code:	043414M

Overview

Geoinformatics is the combination of information technology, computer programming, remote sensing and data layering techniques known as geographical information systems (GIS) designed to analyse and interpret spatial data.

Geographical Information Systems (GIS) is a technique for processing and managing spatial data. The outcome of GIS emphasises the efficient interpretation of spatial knowledge. It is used extensively by government planning organisations and industry, but is increasingly being used in a wider range of applications.

This degree integrates aspects of information technology, computer programming and spatial analysis techniques to comprehensively train a student in this growing field of spatial data processing and management. The degree provides grounding in the fundamentals of landscape recognition and interpretation in fields such as mineralogy, biogeography, soils, marine science and climatology, as well as the relevant areas of computer science and information technology.

This degree has two strands, non-Honours (coursework) and Honours (including a substantial research project).

Entry Requirements / Assumed Knowledge

Approximate UAI: 77

Assumed Knowledge: Any two units of English plus Mathematics.

For entry requirements for students 21 and over or international students, please refer to the relevant prospectus.

Course Requirements

To qualify for the award of the degree of Bachelor of Computer Geoinformatics, students must satisfactorily complete 192 credit points, as detailed, over four years full-time (or equivalent part-time). Students achieving a WAM of greater than 67.5 will undertake the Honours strand in their final year, while other students will continue in the non-Honours strand.

Course Program

Subjects	Session	Credit Points
Year 1		
CSCI103 Algorithms and Problem Solving	Autumn	6
CSCI114 Procedural Programming	Autumn	6
CSCI124 Object Programming	Spring	6
MATH121 Discrete Mathematics	Autumn	6
Plus three of the following:		
EESC101 Planet Earth	Autumn	6
EESC102 Earth Environments and Resources	Spring	6
EESC103 Landscape Change and Climatology	Autumn	6
EESC104 The Human Environment: Problems and Change	Spring	6
Plus one of the following:		
MATH141 Mathematics 1C Part 1	Autumn	6
MATH161 Mathematics 1E Part 1	Spring	6
MATH187 Mathematics 1A Part 1	Autumn	6
Year 2		
CSCI204 The C Family and Unix	Autumn/ Spring	6
CSCI213 Java Programming and the Internet	Autumn/ Spring	6
CSCI235 Databases	Spring	6
STAT252 Statistics for the Natural Sciences	Spring	6
EESC204 Introductory Spatial Science	Spring	6
Plus any three 200-level EESC subjects		18
Note: a credit or higher in STAT252 is required before enrolling in STAT355.		
Year 3		
CSCI315 Database Design and Implementation	Autumn	6
CSCI336 Computer Graphics	Autumn	6
STAT335 Sample Surveys and Experimental Design	Autumn	6
EESC304 Geographic Information Science	Spring	8
EESC305 Remote Sensing of the Environment	Autumn	8
Plus any 300-level CSCI subject		6
Plus any 300-level EESC subject		8
Year 4 (Honours) - WAM > 67.5		
INFO411 Data Mining and Knowledge Discovery	Spring	6
EESC403 Geoinformatics Honours	Annual	36
Plus any 400-level INFO or IACT subject		6
Year 4 (Non-Honours)		
INFO411 Data Mining and Knowledge Discovery	Spring	6
Plus 300/400 level electives chosen from the Earth and Environmental Sciences, Computer Science and/or Mathematics Schedules. At least 24 credit points must be at 400-level from the Computer Science and/or Mathematics Schedule.		42

Honours

To qualify for an award of Honours, students must satisfactorily complete the requirements listed in Year 4 (Honours) of the Course Program above. The classes of Honours awarded are defined in the Course Rules.

Bachelor of Computer Science

Testamur Title of Degree:	Bachelor of Computer Science (name of major)
Abbreviation:	BCompSc
Home Faculty:	Informatics
Duration:	3 years or part-time equivalent
Total Credit Points:	144
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Standard Course Fee:	HECS (local); International \$8,900 per session
Location:	Wollongong; Dubai UAE; INTI College, Kuching, Sarawak, Malaysia.
UOW Course Code:	766, DB766, MY766
UAC Code:	754101
CRICOS Code:	012088K

Overview

Computer scientists design and write programs for computer applications. These applications include computer systems to control machinery, the analysis of stock market trends, games design, visualisation of chemical reactions, neural network design, computational geometry for robot navigation, automatic teller machines and patient monitoring in hospitals.

Computer programming is the science of writing computer software to solve problems. Computer science is the study of algorithmic processes that describe and transform information: theory, analysis, design, efficiency, programming and application.

This degree includes a core of programming subjects as well as electives in database, languages, artificial intelligence, computer security, computer graphics, operating systems, real-time software and software engineering.

A high point of the degree is the third year project where students form teams to develop computer applications. High-achieving students may complete a fourth year Honours degree.

UOW's Computer Science degree allows you to specialise in software development, distributed systems or digital systems security, as well as study other disciplines including management, visual arts, languages, commerce and mathematics. You can take subjects from another discipline, study a second major or enrol in a double degree.

Entry Requirements / Assumed Knowledge

Approximate UAI: 77

Assumed Knowledge: Any two units of English plus Mathematics.

For entry requirements for students 21 and over or international students, please refer to the relevant prospectus.

Advanced Standing

Information about Approved Credit Transfer Arrangements with domestic providers is available at:
<http://www.uow.edu.au/handbook/advancedstanding/>

Information about Approved Credit Transfer Arrangements with international providers is available at:
<http://www.uow.edu.au/discover/international/COURSES/courseset.html#advanced>

Course Requirements

To qualify for the award of the degree of Bachelor of Computer Science, a candidate shall accrue an aggregate of at least 144 credit points by satisfactory completion of:

- the following core subjects:
 - CSCI102 Systems
 - CSCI103 Algorithms & Problem Solving
 - CSCI114 Procedural Programming
 - CSCI124 Object Programming
 - MATH121 Discrete Mathematics
 - STAT131 Understanding Variation & Uncertainty
 - CSCI203 Algorithms and Data Structures
 - CSCI204 The C Family and Unix
 - CSCI212 Interacting Systems
 - CSCI222 Systems Development
 - CSCI321 Project

Course Information

- an additional 24 credit points of 300-level subjects, of which 12 credit points must be CSCI subjects. Note that at least 24 credit points of 300-level subjects, including CSCI321, must be at pass grade or better.
- no more than 60 credit points at 100-level.
- at least 48 credit points of subjects chosen from the Computer Science Schedule and/or the General Schedule (see the list of recommended subjects from the General Schedule).
- no more than 24 credit points (ie 1/6) of subjects at PC grade.

Areas of Major Study

Students enrolled in this degree can major in:

- Computer Science
- Digital Systems Security
- Distributed Systems
- Software Development

Approved second majors are available in:

- Biological Sciences
- Business Information Systems
- Chemistry
- Electronic Commerce
- Electronics
- English Language Studies
- Geosciences
- Management
- Marketing
- Mathematics

All majors are outlined in detail below.

All candidates are expected to consult with the School and Faculty advisers before committing themselves completely to any particular pattern, whether outlined below or not.

Computer Science Schedule

The following subjects are approved for inclusion in the Bachelor of Computer Science degree.

Subjects	Session	Credit Points	
100-Level			
CSCI102	Systems	Spring	6
CSCI103	Algorithms & Problem Solving	Autumn/ Spring	6
CSCI112	Fundamentals of Computer Science	Spring	6
CSCI114	Procedural Programming	Autumn/ Spring	6
CSCI124	Object Programming	Spring	6
MATH121	Discrete Mathematics	Autumn	6
MATH141	Mathematics 1C - Part I	Autumn	6
MATH142	Mathematics 1C - Part II	Spring	6
MATH187	Mathematics 1A - Part 1	Autumn	6
MATH188	Mathematics 1A - Part 2	Spring	6
STAT131	Understanding Variation & Uncertainty	Autumn/ Spring	6
200-Level			
CSCI203	Algorithms and Data Structures	Autumn	6
CSCI204	The C Family and Unix	Autumn/ Spring	6
CSCI205	Development Methods and Tools	Spring	6
CSCI212	Interacting Systems	Autumn	6
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
CSCI214	Distributed Systems	Spring	6
CSCI222	Systems Development	N/A in 2004	6
CSCI235	Databases	Spring	6
CSCI236	3D Modelling & Animation	N/A in 2004	6
CSCI262	Systems Security	Spring	6
IACT201	Information Technology and Citizens' Rights	Autumn	6
IACT202	The Structure and Organisation of Telecommunications	Spring	6
ITCS201	Markup Languages	Autumn	6
MATH203	Linear Algebra	Autumn	6
300-Level			
CSCI311	Software Process Management	Autumn	6
CSCI313	Professional Programming Practices	N/A in 2004	6
CSCI315	Database Design and Implementation	Autumn	6
CSCI317	Database Performance Tuning	Spring	6

CSCI321	Project	Annual	12
CSCI322	Systems Administration	Spring	6
CSCI323	Artificial Intelligence	Spring	6
CSCI324	Human Computer Interface	Spring	6
CSCI325	Software Engineering Formal Methods	Autumn	6
CSCI333	Compilers	N/A in 2004	6
CSCI334	Interfacing and Real Time Programming	Spring	6
CSCI336	Computer Graphics	Autumn	6
CSCI337	Organisation of Programming Languages	Spring	6
CSCI361	Computer Security	Autumn	6
CSCI365	Computer Science Honours Preliminary	N/A in 2004	6
CSCI368	Network Security	Spring	6
CSCI370	Special Topics in Computer Science A	N/A in 2004	6
CSCI371	Special Topics in Computer Science B	N/A in 2004	6
CSCI372	Special Topics in Computer Science C	N/A in 2004	6
CSCI373	Special Topics in Computer Science D	N/A in 2004	6
CSCI399	Server Technology	Autumn	6
IACT301	Information and Communication Security Issues	Spring	6
IACT302	Corporate Network Planning	Autumn	6
IACT303	World Wide Networking	Spring	6
IACT304	eBusiness Fundamentals	Autumn	6
IACT305	eBusiness Technologies	Autumn	6
ITCS401	Exploiting Collaborative Technologies	N/A in 2004	6

400-Level

CSCI407	Corba & Enterprise Java	Spring	6
CSCI408	Distributed Java	N/A in 2004	6
CSCI425	Topics in Software Engineering	Autumn	6
CSCI444	Perception and Planning	Spring	6
CSCI445	Parallel Computing	N/A in 2004	6
CSCI446	Multi-Media Studies	Autumn	6
CSCI450	Software Engineering Requirements & Specifications	Spring	6
CSCI457	Advanced Topics in Database Management	Spring	6
CSCI463	Advanced Computer Graphics	N/A in 2004	6
CSCI464	Neural Computing	Autumn	6
CSCI465	Design and Analysis of Algorithms	N/A in 2004	6
CSCI466	Coding for Secure Communication	N/A in 2004	6
CSCI467	Complexity Theory	N/A in 2004	6
CSCI471	Advanced Computer Security	Spring	6
INFO411	Data Mining and Knowledge Discovery	Spring	6
INFO412	Mathematics for Cryptography	Autumn	6
INFO413	Information Theory	Spring	6
ITCS429	Introduction to Health Informatics	Spring	6
ITCS430	Concepts and Issues in Healthcare Computing	Autumn	6
ITCS431	Advanced Web Application Development	Spring	6
ITCS432	Web Design	Spring	6
ITCS436	Detailed Design of Integrated Solutions for eBusiness	Spring	6
ITCS450	Patterns for eBusiness	Autumn	6
ITCS451	Web Services for Dynamic eBusiness	Spring	6

Honours

Candidates who achieve a credit average or better in the Bachelor of Computer Science or a major in computer science in another degree are eligible to enrol in an additional year of study towards a Bachelor of Computer Science (Honours) (BCompSc(Hons)).

To qualify for the award of the Bachelor of Computer Science (Honours), candidates must complete CSCI401. The level of honours awarded at the completion of the course is determined in accordance with University Course Rule 8.4(2).

The program of study for BCompSc(Hons), (ie CSCI401 Computer Science IV Honours) is 48 credit points and will include:

1. an 18 credit point project;
2. 30 credit points of 400-/900-level Postgraduate Computer Science subjects;
3. with the permission of the Head of School, candidates may substitute up to 12 credit points of subjects with 300-level Computer Science subjects or 400-level subjects from another discipline;
4. attendance at a series of seminars on research methodology in Autumn Session is compulsory (including quantitative and qualitative analysis). Seminars will cover the purpose of research, formulating a research question, conducting a literature review and writing a research proposal. Students will learn how to design an appropriate research plan; requirements for scholarly writing will also be discussed and the process of undertaking a research project will be analysed.

Individual results for subjects attempted will not be released. Instead, the final result for CSCI401 will be calculated from the total results for the project and subjects. Set out below are a sample of subjects which may be taken as part of the BCompSc(Hons):

- Topics in Software Engineering

Course Information

- Perception and Planning
- Parallel Architectures and Algorithms
- Multi-Media Studies
- Advanced Topics in Database Management
- Advanced Computer Graphics
- Neural Computing
- Design and Analysis of Algorithms
- Coding for Secure Communication
- Complexity Theory
- Network Security
- Advanced Computer Security

Joint Honours with Computer Science

CSCI405 – Computer Science Joint Honours comprises one half of CSCI401 and is available to students who wish to undertake a joint honours project. This is particularly suited to students who have undertaken a double major in the BCompSc degree. A thesis topic will be determined in consultation with both academic units.

Major Study Areas

Computer Science (code CS18)

Major Study

To satisfy the requirements for a major study in Computer Science, a student shall satisfactorily complete the BCompSc core subjects, as listed above, and an additional 12 credit points of 300-level CSCI subjects.

Double Majors

A major in Computer Science can be combined with Biological Sciences, Business Information Systems, Chemistry, Electronic Commerce, Electronics, English Language Studies, Geosciences, Management, Marketing or Mathematics. Second major requirements are listed below.

Digital Systems Security (code CS42)

Major Study

To satisfy the requirements for a major study in Digital Systems Security, a student shall satisfactorily complete the BCompSc core subjects, as listed above, and the following additional subjects:

Subjects	Session	Credit Points
200-Level		
CSCI214 Distributed Systems	Spring	6
CSCI262 Systems Security	Spring	6
300-Level		
CSCI361 Computer Security	Autumn	6
CSCI368 Network Security	Spring	6

Double Majors

A major in Digital Systems Security can be combined with Distributed Systems (code CS44), Software Development (code CS45) or Computer Science (code CS43). Second major requirements are listed below.

Distributed Systems (code CS19)

Major Study

To satisfy the requirements for a major study in Distributed Systems, a student shall satisfactorily complete the BCompSc core subjects, as listed above, and the following additional subjects:

Subjects	Session	Credit Points
200-Level		
CSCI213 Java Programming and the Internet	Autumn/ Spring	6
CSCI214 Distributed Systems	Spring	6
300-Level		
CSCI322 Systems Administration	Spring	6
CSCI399 Server Technology	Autumn	6

Double Majors

A major in Distributed Systems can be combined with Business Information Systems, Electronic Commerce, Electronics or Software Development (code CS28). Second major requirements are listed below.

Software Development (code CS20)**Major Study**

To satisfy the requirements for a major study in Software Development, a student shall satisfactorily complete the BCompSc core subjects, as listed above, and the following additional subjects:

Subjects	Session	Credit Points
200-Level		
CSCI205 Development Methods and Tools	Spring	6
CSCI235 Databases	Spring	6
300-Level		
CSCI311 Software Process Management	Autumn	6
CSCI325 Software Engineering Formal Methods	Autumn	6

Double Majors

A major in Software Development can be combined with Business Information Systems, Electronic Commerce, Electronics or Distributed Systems (code CS28). Second major requirements are listed above and below.

Computer Science and Biological Sciences (code CS32)

This double major requires satisfactory completion of a major study in Computer Science and satisfactory completion of one of the following 60 credit point majors in Biological Sciences:

Environmental and Ecological Strand

Subjects	Session	Credit Points
100-Level		
BIOL103 Molecules, Cells and Organisms	Spring	6
BIOL104 Evolution, Biodiversity and Environment	Autumn	6
200-Level		
BIOL240 Organisms and their Life Cycles	Autumn	6
BIOL241 Biodiversity: Classification and Sampling	Spring	6
BIOL251 Principles of Ecology and Evolution	Autumn	6
STAT252 Statistics for the Natural Sciences	Spring	6

Note: STAT252 is equivalent to STAT131. Students undertaking this double major may choose to replace STAT131 with STAT252.

300-Level		
BIOL332 Comparative Physiology: Adaptation and Environment	Autumn	8
BIOL351 Conservation Biology: Marine and Terrestrial Populations	Autumn	8
BIOL355 Marine and Terrestrial Ecology	Spring	8

Cell and Molecular Strand

Subjects	Session	Credit Points
100-Level		
BIOL103 Molecules, Cells and Organisms	Spring	6
BIOL104 Evolution, Biodiversity and Environment	Autumn	6
CHEM101 Chemistry 1A: Introductory Physical and General Chemistry	Autumn	6
CHEM102 Chemistry 1B: Introductory Organic and Physical Chemistry	Spring	6
200-Level		
BIOL213 Principles of Biochemistry	Autumn	6
BIOL215 Introductory Genetics	Spring	6
300-Level		
BIOL320 Molecular Cell Biology	Autumn	8
BIOL303 Biotechnology	Autumn	8
BIOL321 Cellular and Molecular Immunology	Spring	8

Computer Science and Business Information Systems (code CS35)**Distributed Systems and Business Information Systems (code CS40)****Software Development and Business Information Systems (code CS41)**

This double major requires satisfactory completion of a major study in Computer Science, Distributed Systems or Software Development and satisfactory completion of a major study in Business Information Systems, as outlined in the Bachelor of

Course Information

Commerce entry. Note, however, that students are not required to complete the core subjects as listed in the Bachelor of Commerce except where those subjects are prerequisites to subjects in the Business Information Systems major. All students must satisfy subject prerequisites except where waivers have been granted.

Computer Science and Chemistry (code CS33)

This double major requires satisfactory completion of a major study in Computer Science and satisfactory completion of the following 60 credit point major in Chemistry:

Subjects	Session	Credit Points
100-Level		
Either		
CHEM101 Chemistry 1A: Introductory Physical and General Chemistry	Autumn	6
or		
CHEM104 Chemistry 1D (Introductory Chemistry)	Autumn	6
Plus either		
CHEM102 Chemistry 1B: Introductory Organic and Physical Chemistry	Spring	6
or		
CHEM105 Chemistry 1E (Introductory Chemistry)	Spring	6
200-Level		
CHEM211 Inorganic Chemistry II	Autumn	6
CHEM212 Organic Chemistry II	Autumn	6
CHEM213 Molecular Structure, Reactivity and Change	Spring	6
CHEM214 Analytical and Environmental Chemistry	Spring	6
300-Level		
At least 3 subjects chosen from the following		
CHEM311 Inorganic Chemistry III	Spring	8
CHEM314 Instrumental Analysis	Autumn	8
CHEM320 Biological Chemistry	Spring	8
CHEM321 Organic Synthesis and Reactivity	Spring	8
CHEM327 Environmental Chemistry	Autumn	8
CHEM340 Chemistry Laboratory Project	Autumn/ Spring/ Summer	8
CHEM364 Molecular Structure and Spectroscopy	Autumn	8

Computer Science and Electronic Commerce (code CS36)

Distributed Systems and Electronic Commerce (code CS30)

Software Development and Electronic Commerce (code CS29)

This double major requires satisfactory completion of a major study in Computer Science, Distributed Systems or Software Development and satisfactory completion of the following 54 credit point major study in Electronic Commerce:

Subjects	Session	Credit Points
200-Level		
IACT201 Information Technology and Citizens' Rights	Autumn	6
Plus		
200-level Electronic Commerce subjects		18
300-Level		
IACT303 World Wide Networking	Spring	6
Plus		
300/400-level Electronic Commerce subjects		18
Plus		
200/300-level Electronic Commerce subject		6

Note: Students should choose electives carefully as many of the following subjects have pre-requisites. Depending upon subject choice, a load of more than four subjects per session may be required to complete this double major within the normal three year period.

Electronic Commerce Subjects

ACCY231 Information Systems in Accounting	Spring	6
ACCY332 Advanced Information Systems in Accounting	Autumn	6
ACCY335 Systems Analysis and Design in Accounting and Finance	Spring	6
BUSS211 Requirements Determination and Systems Analysis	Autumn	6
BUSS212 Database Management Systems	Spring	6
BUSS311 Advanced Database Management Systems	Autumn	6
BUSS312 Distributed Information Systems	Autumn	6
CSCI213 Java Programming and the Internet	Autumn/ Spring	6
CSCI214 Distributed Systems	Spring	6
CSCI236 3D Modelling & Animation	N/A in 2004	6
CSCI311 Software Process Management	Autumn	6
CSCI361 Computer Security	Autumn	6
CSCI399 Server Technology	Autumn	6

ECON230	Quantitative Analysis for Decision Making	Spring	6
ECON312	Industrial Economics	Autumn	6
ECON319	Electronic Commerce and the Economics of Information	Spring	6
FIN353	Global Electronic Finance	Autumn	6
IACT304	eBusiness Fundamentals	Autumn	6
IACT305	eBusiness Technologies	Autumn	6
IACT406	Strategic eBusiness Solutions	Spring	6
IACT417	Information Management	Autumn	6
IACT419	Online Information Services	Spring	6
ITCS436	Detailed Design of Integrated Solutions for eBusiness	Spring	6
ITCS450	Patterns for eBusiness	Autumn	6
ITCS451	Web Services for Dynamic eBusiness	Spring	6
LAW210	Contract Law	Spring	6
LAW317	E-Commerce Law	N/A in 2004	6
LAW331	Intellectual Property Law	N/A in 2004	6
MARK301	Marketing on the Internet	Spring	6
MGMT200	Management and Electronic Business	Spring	6
MGMT300	Innovation and Electronic Commerce	Spring	6

Computer Science and Electronics (code CS37)

Distributed Systems and Electronics (code CS38)

Software Development and Electronics (code CS39)

This double major requires satisfactory completion of a major study in Computer Science, Distributed Systems or Software Development and satisfactory completion of the following 66 credit point major study in Electronics:

Subjects	Session	Credit Points
100-Level		
ECTE101 Electrical Engineering 1	Spring	6
MATH187 Mathematics 1A Part 1	Autumn	6
MATH188 Mathematics 1A Part 2	Spring	6
Note:		
MATH187 may be replaced by MATH141/161		
MATH188 may be replaced by MATH142/162		
200-Level		
ECTE202 Circuits and Systems	Autumn	6
ECTE212 Electronics and Communications	Spring	6
ECTE233 Digital Hardware 1	Autumn	6
MATH283 Mathematics 2E for Engineers Part 1	Autumn	6
300-Level		
ECTE313 Electronics	Autumn/ Spring	6
ECTE333 Digital Hardware 2	Spring	6
ECTE344 Control Theory	Autumn	6
Plus		
ECTE301 Digital Signal Processing 1	Spring	6
or		
ECTE363 Communication Theory	Autumn	6
Note: a load of more than four subjects per session may be required to complete this double major within the normal three year period.		

Computer Science and English Language Studies (code CS08)

This double major requires satisfactory completion of a major study in Computer Science and satisfactory completion of a major study in English Language Studies, as outlined in the Bachelor of Arts entry.

Note that a major in English Language Studies for Non-English Speaking Background (NESB) students consists of 58 credit points, while a major in English Language Studies for English Speaking Background (ESB) students consists of 52 credit points.

Computer Science and Geosciences (code CS34)

This double major requires satisfactory completion of a major study in Computer Science and satisfactory completion of the following 60 credit point major in Geosciences:

Subjects	Session	Credit Points
100-Level		
At least two 100-level subjects chosen from the Earth and Environmental Sciences Schedule		12
200-Level		
At least four 200-level subjects chosen from the Earth and Environmental Sciences Schedule		24
300-Level		
At least three 300-level subjects chosen from the Earth and Environmental Sciences Schedule		24

Computer Science and Management (code CS09)

This double major requires satisfactory completion of a major study in Computer Science and satisfactory completion of a major study in Management, as outlined in the Bachelor of Commerce entry. Note, however, that students are not required to complete the core subjects as listed in the Bachelor of Commerce except where those subjects are prerequisites to subjects in the Management major. All students must satisfy subject prerequisites except where waivers have been granted.

Computer Science and Marketing (code CS10)

This double major requires satisfactory completion of a major study in Computer Science and satisfactory completion of a major study in Marketing, as outlined in the Bachelor of Commerce entry. Note, however, that students are not required to complete the core subjects as listed in the Bachelor of Commerce except where those subjects are prerequisites to subjects in the Marketing major. All students must satisfy subject prerequisites except where waivers have been granted.

Computer Science and Mathematics (code CS01)

This double major requires satisfactory completion of a major study in Computer Science and satisfactory completion of at least 60 credit points of subjects chosen from the Mathematics Schedule, including at least 18 credit points of 200-level MATH/STAT subjects and 24 credit points of 300-level MATH/STAT subjects.

Professional Recognition

The Bachelor of Computer Science has recently been revised, therefore re-accreditation by the Australian Computer Society as meeting requirements for membership at a "Professional level" is currently being sought.

Bachelor of Engineering

Testamur Title of Degree:	Bachelor of Engineering (name of major)
Abbreviation:	BE
Home Faculty:	Informatics
Duration:	4 years or part-time equivalent
Total Credit Points:	192
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Standard Course Fee:	HECS (local); International \$8,900 per session
Location:	Wollongong
UOW Course Code:	722E
UAC Code:	755621, 755622, 755623, 755624.
CRICOS Code:	006985E

Overview

The aim of the Bachelor of Engineering degree is to produce professional engineers, who possess the graduate attributes of the University and Engineers Australia and the requisite knowledge, skills and attitudes to further develop in their chosen careers; and who graduate with the proficiency to compete successfully anywhere in the world. The success of the degree in meeting this aim is evidenced by the number of graduates employed by large corporations in Australia, the United Kingdom, the United States of America, Europe and Asia.

The degree programs offered are enriched by the industry partnerships, which exist between the University and industry. Traditionally, Engineering at Wollongong has had close ties with the Port Kembla Steel Industry and these continue today. Research activities have diversified over the years with the establishment of major research institutes and centres in fields such as Telecommunications and Information Technology and Power Quality.

There are four majors within the degree, viz., Computer, Electrical, Internet and Telecommunications Engineering. For three of the majors, Computer, Electrical and Telecommunications Engineering, the program of study is common until the end of the second year, providing students with the opportunity to finally select the major of their choice at the end of that year. For the Internet Engineering degree specialisation starts in the first year of study. Details of each major are presented in the sections below.

In addition, four double degrees are offered with the Computer, Electrical and Telecommunications Engineering majors. The double degrees provide the opportunity for students to combine their engineering studies with a Bachelor of Arts, Bachelor of Commerce, Bachelor of Mathematics or Bachelor of Science. Full details of the programs of study for the double degrees are presented in the next section.

Entry Requirements / Assumed Knowledge

Approximate UAI: 80

Assumed Knowledge: Any two units of English plus Mathematics and two units of science.

Recommended studies: English Advanced, HSC Mathematics Extension 1 and Physics.

For entry requirements for students 21 & over or international students, please refer to the relevant prospectus.

Advanced Standing

Information about Approved Credit Transfer Arrangements with domestic providers is available at:
<http://www.uow.edu.au/handbook/advancedstanding/>

Information about Approved Credit Transfer Arrangements with international providers is available at:
<http://www.uow.edu.au/discover/international/COURSES/courseset.html#advanced>

Course Requirements

The degree may be completed in a minimum of four years of full-time study, however, subjects are scheduled so that it may also be undertaken on a part-time basis, in which case the duration will depend upon the particular circumstances of the student. Progression is by subject but the various subject pre- and co-requisites must be satisfied.

There is a recommended program for a full-time, four year minimum course and a preferred part-time program for students in approved, full-time professional employment. For holders of TAFE Certificates and Associate Diplomas, programs will be determined on an individual basis but exemptions of up to 48 credit points may apply.

For the recommended full-time program, students are required to complete satisfactorily the first year before beginning the third year and to complete satisfactorily the second year before beginning the fourth year. With the approval of the Head of School, these requirements may be waived.

For the recommended part-time program, students are required to complete satisfactorily the first two stages before beginning the fourth stage and to complete satisfactorily the third stage before beginning the sixth stage. With the approval of the Head of School, these requirements may be waived.

All BE students must sit for and perform satisfactorily in an English Literacy Test organised by the School in association with the Student Learning Development Centre. The test will be held during the first session of a student's enrolment at the University. It is a requirement of the degree that the student perform satisfactorily in at least one such test prior to enrolment in ECTE457 Thesis.

Students who are deemed to require tuition in literacy in order to complete this requirement will be advised accordingly and will be required to repeat the literacy test the following year. Enrolment in and attendance at literacy courses will be the individual responsibility of the students concerned.

Professional Experience

All BE students must accumulate at least 12 weeks of approved professional experience, documented in the form of employment reports and preferably in the period between Years 3 and 4.

Honours

The degree of Bachelor of Engineering (Honours) is awarded for meritorious performance over the course and particularly in the final year. The classes of honours awarded are defined in the Course Rules.

Major Study Areas

Computer Engineering

Recommended Full-Time Program

Subjects		Session	Credit Points
Year 1			
CSCI114	Procedural Programming	Autumn/ Spring	6
ECTE150	Engineering Design and Management 1	Autumn	6
MATH187	Mathematics 1A Part 1	Autumn	6
PHYS141	Fundamentals of Physics A	Autumn	6
CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
MATH188	Mathematics 1A Part 2	Spring	6
PHYS142	Fundamentals of Physics B	Spring	6
Note:			
MATH187 may be replaced by MATH141/161			
MATH188 may be replaced by MATH142/162			
Year 2			
CSCI204	The C Family and Unix	Autumn/ Spring	6
Or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
ECTE250	Engineering Design and Management 2	Annual	6
ECTE233	Digital Hardware 1	Autumn	6

Course Information

MATH283	Mathematics 2E for Engineers Part 1	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
ENGG291	Engineering Fundamentals	Spring	6

Year 3

ECTE313	Electronics	Annual	6
ECTE350	Engineering Design and Management 3	Annual	6
ECTE344	Control Theory	Autumn	6
ECTE363	Communication Theory	Autumn	6
CSCI205	Development Methods and Tools	Spring	6
ECTE301	Digital Signal Processing 1	Spring	6
ECTE333	Digital Hardware 2	Spring	6
Plus	Computer Option	Spring	6

Year 4

ECTE457	Thesis	Annual	18
CSCI311	Software Process Management	Autumn	6
ECTE431	Real-time Computing	Autumn	3
ECTE432	Computer Systems	Autumn	3
Plus	2 Final Year Specialisation Subjects	Autumn	6
	4 Final Year Specialisation Subjects	Spring	12

Recommended Part-Time Program for Students in Full-Time, Approved Professional Employment

Subjects		Session	Credit Points
Stage 1			
ECTE150	Engineering Design and Management 1	Annual	6
MATH187	Mathematics 1A Part 1	Autumn	6
PHYS141	Fundamentals of Physics A	Autumn	6
MATH188	Mathematics 1A Part 2	Spring	6
PHYS142	Fundamentals of Physics B	Spring	6
Note:			
MATH187 may be replaced by MATH141/161			
MATH188 may be replaced by MATH142/162			
Stage 2			
CSCI114	Procedural Programming	Autumn/ Spring	6
ECTE233	Digital Hardware 1	Autumn	6
CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
Stage 3			
CSCI204	The C Family and Unix	Autumn/ Spring	6
Or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
MATH283	Mathematics 2E for Engineers Part 1	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
Stage 4			
ECTE250	Engineering Design and Management 2	Annual	6
ECTE344	Control Theory	Autumn	6
ECTE333	Digital Hardware 2	Spring	6
ENGG291	Engineering Fundamentals	Spring	6
Plus	Computer Option	Autumn/ Spring	6
Stage 5			
ECTE350	Engineering Design and Management 3	Annual	6
ECTE363	Communication Theory	Autumn	6
CSCI205	Development Methods and Tools	Spring	6
ECTE301	Digital Signal Processing 1	Spring	6
Stage 6			
ECTE313	Electronics	Annual	6
CSCI311	Software Process Management	Autumn	6
ECTE431	Real-time Computing	Autumn	3
ECTE432	Computer Systems	Autumn	3
Plus	4 Final Year Specialisation Subjects	Spring	12
Stage 7			
ECTE457	Thesis	Annual	18
Plus	2 Final Year Specialisation Subjects	Autumn	6

Final Year Specialisation Subjects

These will be selected from the following list of subjects. Unless class numbers warrant, only eight subjects will be offered in any year.

Note: A pre-requisite of "all year 2 subjects or equivalent" applies to EACH Final Year Specialisation Subject in addition to any other pre- or co-requisite given.

Subjects		Session	Credit Points
ECTE401	Fast Signal Processing Algorithms	Autumn/ Spring	3
ECTE402	Stochastic Signal Processing	Autumn/ Spring	3
ECTE403	Image and Video Processing	Autumn/ Spring	3
ECTE404	Adaptive Signal Processing	Autumn/ Spring	3
ECTE405	Speech and Audio Processing	Autumn/ Spring	3
ECTE411	AC-Sourced Power Electronics	Autumn/ Spring	3
ECTE412	DC-Sourced Power Electronics	Autumn/ Spring	3
ECTE413	Micro-Electronics	Autumn/ Spring	3
ECTE421	Power Quality	Autumn/ Spring	3
ECTE422	Power Quality Monitoring	Autumn/ Spring	3
ECTE423	Power Systems	Autumn/ Spring	3
ECTE424	Power System Abnormalities	Autumn/ Spring	3
ECTE425	Industrial Drives and Actuators	Autumn/ Spring	3
ECTE426	Power Equipment Design	Autumn/ Spring	3
ECTE441	Intelligent Control	Autumn/ Spring	3
ECTE442	Computer Controlled Systems	Autumn/ Spring	3
ECTE443	Digital Control	Autumn/ Spring	3
ECTE444	Identification and Optimal Control	Autumn/ Spring	3
ECTE461	Telecommunications Queuing Theory	Autumn/ Spring	3
ECTE462	Telecommunications System Modelling	Autumn/ Spring	3
ECTE463	Transmission Systems	Autumn/ Spring	3
ECTE464	Antennas and Propagation	Autumn/ Spring	3
ECTE465	Wireless Communications	Autumn/ Spring	3
ECTE466	Spread Spectrum Communications	Autumn/ Spring	3
ECTE467	Mobile Networks	Autumn/ Spring	3
ECTE468	Error Control Coding	Autumn/ Spring	3
ECTE471	Robotics Manipulators	Autumn/ Spring	3
ECTE472	Robotics Sensory Control	Autumn/ Spring	3
ECTE481	Internet Protocols	Autumn/ Spring	3
ECTE482	Internet Engineering	Autumn/ Spring	3
ECTE483	Computer Networking	Autumn/ Spring	3
ECTE484	Network Design and Analysis	Autumn/ Spring	3
ECTE485	Internet Communications	Autumn/ Spring	3
ECTE486	Telecommunications Network Management	Autumn/ Spring	3

Computer Option

Year 3/Stage 4:

With the approval of the Head of School, students may select:

- (a) one six credit point, 200 or 300 or 400-level subject from those listed in the General Schedule and offered by EITHER:
- (i) the School of Information Technology and Computer Science (CSCI, IACT or ITCS) ; or
 - (ii) the School of Mathematics and Applied Statistics (MATH or STAT).

OR

- (b) ECTE281 Embedded Internet Systems.

Note that this selection may be constrained by pre- and co-requisites and timetabling.

Electrical Engineering

Recommended Full-Time Program

Subjects		Session	Credit Points
Year 1			
CSCI114	Procedural Programming	Autumn/ Spring	6
ECTE150	Engineering Design and Management 1	Autumn	6
MATH187	Mathematics 1A Part 1	Autumn	6
PHYS141	Fundamentals of Physics A	Autumn	6
CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
MATH188	Mathematics 1A Part 2	Spring	6
PHYS142	Fundamentals of Physics B	Spring	6
Note:			
MATH187 may be replaced by MATH141/161			
MATH188 may be replaced by MATH142/162			
Year 2			
CSCI204	The C Family and Unix	Autumn/ Spring	6
or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6

Course Information

ECTE250	Engineering Design and Management 2	Annual	6
ECTE233	Digital Hardware 1	Autumn	6
MATH283	Mathematics 2E for Engineers Part 1	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
ENGG291	Engineering Fundamentals	Spring	6
Year 3			
ECTE313	Electronics	Annual	6
ECTE350	Engineering Design and Management 3	Annual	6
ECTE323	Power Engineering 2	Autumn	6
ECTE344	Control Theory	Autumn	6
ECTE363	Communication Theory	Autumn	6
ECTE301	Digital Signal Processing 1	Spring	6
ECTE333	Digital Hardware 2	Spring	6
Plus	Electrical Option	Spring	
Year 4			
ECTE457	Thesis	Annual	18
Plus	6 Final Year Specialisation Subjects	Autumn	18
	4 Final Year Specialisation Subjects	Spring	12

Recommended Part-Time Program for Students in Full-Time, Approved Professional Employment

Subjects		Session	Credit Points
Stage 1			
ECTE150	Engineering Design and Management 1	Annual	6
MATH187	Mathematics 1A Part 1	Autumn	6
PHYS141	Fundamentals of Physics A	Autumn	6
MATH188	Mathematics 1A Part 2	Spring	6
PHYS142	Fundamentals of Physics B	Spring	6
Note:			
MATH187 may be replaced by MATH141/161			
MATH188 may be replaced by MATH142/162			
Stage 2			
CSCI114	Procedural Programming	Autumn/ Spring	6
ECTE233	Digital Hardware 1	Autumn	6
CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
Stage 3			
CSCI204	The C Family and Unix	Autumn/ Spring	6
or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
MATH283	Mathematics 2E for Engineers Part 1	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
Stage 4			
ECTE250	Engineering Design and Management 2	Annual	6
ECTE323	Power Engineering 2	Autumn	6
ECTE344	Control Theory	Autumn	6
ECTE333	Digital Hardware 2	Spring	6
ENGG291	Engineering Fundamentals	Spring	6
Stage 5			
ECTE350	Engineering Design and Management 3	Annual	6
ECTE363	Communication Theory	Autumn	6
ECTE301	Digital Signal Processing 1	Spring	6
Plus	Electrical Option	Autumn/ Spring	6
Stage 6			
ECTE313	Electronics	Annual	6
Plus	4 Final Year Specialisation Subjects	Autumn	12
	4 Final Year Specialisation Subjects	Spring	12
Stage 7			
ECTE457	Thesis	Annual	18
Plus	2 Final Year Specialisation Subjects	Autumn	6

Final Year Specialisation Subjects

These will be selected from the following list of subjects. Unless class numbers warrant, only 12 subjects will be offered in any year.

Note: A pre-requisite of 'all Year 2 subjects or equivalent' applies to EACH Final Year Specialisation Subject in addition to any other pre- or co-requisite given.

Subjects		Session	Credit Points
ECTE401	Fast Signal Processing Algorithms	Autumn/ Spring	3
ECTE402	Stochastic Signal Processing	Autumn/ Spring	3
ECTE403	Image and Video Processing	Autumn/ Spring	3
ECTE404	Adaptive Signal Processing	Autumn/ Spring	3
ECTE405	Speech and Audio Processing	Autumn/ Spring	3
ECTE411	AC-Sourced Power Electronics	Autumn/ Spring	3
ECTE412	DC-Sourced Power Electronics	Autumn/ Spring	3
ECTE413	Micro-Electronics	Autumn/ Spring	3
ECTE421	Power Quality	Autumn/ Spring	3
ECTE422	Power Quality Monitoring	Autumn/ Spring	3
ECTE423	Power Systems	Autumn/ Spring	3
ECTE424	Power System Abnormalities	Autumn/ Spring	3
ECTE425	Industrial Drives and Actuators	Autumn/ Spring	3
ECTE426	Power Equipment Design	Autumn/ Spring	3
ECTE431	Real-time Computing	Autumn/ Spring	3
ECTE432	Computer Systems	Autumn/ Spring	3
ECTE441	Intelligent Control	Autumn/ Spring	3
ECTE442	Computer Controlled Systems	Autumn/ Spring	3
ECTE443	Digital Control	Autumn/ Spring	3
ECTE444	Identification and Optimal Control	Autumn/ Spring	3
ECTE461	Telecommunications Queuing Theory	Autumn/ Spring	3
ECTE462	Telecommunications System Modelling	Autumn/ Spring	3
ECTE463	Transmission Systems	Autumn/ Spring	3
ECTE464	Antennas and Propagation	Autumn/ Spring	3
ECTE465	Wireless Communications	Autumn/ Spring	3
ECTE466	Spread Spectrum Communications	Autumn/ Spring	3
ECTE467	Mobile Networks	Autumn/ Spring	3
ECTE468	Error Control Coding	Autumn/ Spring	3
ECTE471	Robotics Manipulators	Autumn/ Spring	3
ECTE472	Robotics Sensory Control	Autumn/ Spring	3
ECTE481	Internet Protocols	Autumn/ Spring	3
ECTE482	Internet Engineering	Autumn/ Spring	3
ECTE483	Computer Networking	Autumn/ Spring	3
ECTE484	Network Design and Analysis	Autumn/ Spring	3
ECTE485	Internet Communications	Autumn/ Spring	3
ECTE486	Telecommunications Network Management	Autumn/ Spring	3

With the approval of the School Head, two Final Year Specialisation Subjects may be replaced by a suitable equivalent subject offered by another Department or School.

Electrical Option

Year 3/Stage 5:

With the approval of the Head of School, students may select:

- one six credit point, 200 or 300 or 400-level subject from those listed in the General Schedule and offered by the School of Mathematics and Applied Statistics (MATH or STAT); or
- ECTE281 Embedded Internet Systems.

Note that this selection may be constrained by pre- and co-requisites and timetabling.

Internet Engineering

Recommended Full-Time Program

Subjects		Session	Credit Points
Year 1			
CSCI114	Procedural Programming	Autumn/ Spring	6
ECTE150	Engineering Design and Management 1	Autumn	6
ECTE181	WWW Engineering	Autumn	6
MATH187	Mathematics 1A Part 1	Autumn	6
CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
ECTE182	Internet Technology 1	Spring	6
MATH188	Mathematics 1A Part 2	Spring	6
Note:			
MATH187 may be replaced by MATH141/161			
MATH188 may be replaced by MATH142/162			
Year 2			
ECTE202	Circuits and Systems	Annual	6
ECTE250	Engineering Design and Management 2	Annual	6
ECTE233	Digital Hardware 1	Autumn	6
ECTE282	Internet Systems	Autumn	6

Course Information

MATH283	Mathematics 2E for Engineers Part 1	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
ECTE283	Internet Technology 2	Spring	6
Year 3			
ECTE350	Engineering Design and Management 3	Annual	6
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
ECTE281	Embedded Internet Systems	Autumn	6
ECTE363	Communication Theory	Autumn	6
ECTE301	Digital Signal Processing 1	Spring	6
ECTE381	Internet Engineering 1	Spring	6
Plus	2 Internet Options	Autumn/ Spring	12
Year 4			
ECTE457	Thesis	Annual	18
ECTE481	Internet Protocols	Autumn	3
ECTE482	Internet Engineering	Autumn	3
Plus	4 Final year specialisation subjects	Autumn	12
	4 Final year specialisation subjects	Spring	12

Final Year Specialisation Subjects

These will be selected from the following list of subjects. Unless class numbers warrant, only ten subjects will be offered in any year.

Note: A pre-requisite of 'all Year 2 subjects or equivalent' applies to EACH Final Year Specialisation Subject in addition to any other pre- or co-requisite given.

Subjects		Session	Credit Points
ECTE431	Real-time Computing	Autumn/ Spring	3
ECTE432	Computer Systems	Autumn/ Spring	3
ECTE441	Intelligent Control	Autumn/ Spring	3
ECTE461	Telecommunications Queuing Theory	Autumn/ Spring	3
ECTE462	Telecommunications System Modelling	Autumn/ Spring	3
ECTE465	Wireless Communications	Autumn/ Spring	3
ECTE466	Spread Spectrum Communications	Autumn/ Spring	3
ECTE467	Mobile Networks	Autumn/ Spring	3
ECTE468	Error Control Coding	Autumn/ Spring	3
ECTE484	Network Design and Analysis	Autumn/ Spring	3
ECTE486	Telecommunications Network Management	Autumn/ Spring	3

Internet Option

With the approval of the Head of School, students may select two six credit point, 300-level subjects offered by:

- the School of Information Technology and Computer Science (CSCI, IACT or ITCS); or
- the School of Mathematics and Applied Statistics (MATH or STAT); or
- the School of Electrical, Computer and Telecommunications Engineering (ECTE).

Note that this selection may be constrained by pre- and co-requisites and timetabling.

Telecommunications Engineering

Recommended Full-Time Program

Subjects		Session	Credit Points
Year 1			
CSCI114	Procedural Programming	Autumn/ Spring	6
ECTE150	Engineering Design and Management 1	Autumn	6
MATH187	Mathematics 1A Part 1	Autumn	6
PHYS141	Fundamentals of Physics A	Autumn	6
CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
MATH188	Mathematics 1A Part 2	Spring	6
PHYS142	Fundamentals of Physics B	Spring	6
Note:			
MATH187 may be replaced by MATH141/161			
MATH188 may be replaced by MATH142/162			
Year 2			
CSCI204	The C Family and Unix	Autumn/ Spring	6
Or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
ECTE250	Engineering Design and Management 2	Annual	6
ECTE233	Digital Hardware 1	Autumn	6

MATH283	Mathematics 2E for Engineers Part 1	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
ENGG291	Engineering Fundamentals	Spring	6

Year 3

ECTE301	Digital Signal Processing 1	Spring	6
ECTE313	Electronics	Annual	6
ECTE333	Digital Hardware 2	Autumn	6
ECTE344	Control Theory	Autumn	6
ECTE350	Engineering Design and Management 3	Annual	6
ECTE363	Communication Theory	Autumn	6
ECTE364	Telecommunication Networks 1	Autumn	6
ECTE381	Internet Engineering 1	Spring	6

Year 4

ECTE457	Thesis	Annual	18
ECTE461	Telecommunications Queuing Theory	Autumn	3
ECTE462	Telecommunications System Modelling	Autumn	3
Plus	2 Final Year Specialisation Subjects	Autumn	6
	4 Final Year Specialisation Subjects	Spring	12
	Telecommunications Option	Autumn/ Spring	6

Recommended Part-Time Program for Students in Full-Time, Approved Professional Employment

Subjects	Session	Credit Points
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Stage 1

ECTE150	Engineering Design and Management 1	Annual	6
MATH187	Mathematics 1A Part 1	Autumn	6
PHYS141	Fundamentals of Physics A	Autumn	6
MATH188	Mathematics 1A Part 2	Spring	6
PHYS142	Fundamentals of Physics B	Spring	6

Note:

MATH187 may be replaced by MATH141/161

MATH188 may be replaced by MATH142/162

Stage 2

CSCI114	Procedural Programming	Autumn/ Spring	6
ECTE233	Digital Hardware 1	Autumn	6
CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6

Stage 3

CSCI204	The C Family and Unix	Autumn/ Spring	6
Or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
MATH283	Mathematics 2E for Engineers, Part 1	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6

Stage 4

ECTE250	Engineering Design and Management 2	Annual	6
ECTE333	Digital Hardware 2	Autumn	6
ECTE344	Control Theory	Autumn	6
ECTE381	Internet Engineering 1	Spring	6
ENGG291	Engineering Fundamentals	Spring	6

Stage 5

ECTE350	Engineering Design and Management 3	Annual	6
ECTE363	Communication Theory	Autumn	6
ECTE364	Telecommunication Networks 1	Autumn	6
ECTE301	Digital Signal Processing 1	Spring	6

Stage 6

ECTE313	Electronics	Annual	6
ECTE461	Telecommunications Queuing Theory	Autumn	3
ECTE462	Telecommunications System Modelling	Autumn	3
Plus	4 Final Year Specialisation Subjects	Spring	12
	Telecommunications Option	Autumn/ Spring	6

Stage 7

ECTE457	Thesis	Annual	18
Plus	2 Final Year Specialisation Subjects	Autumn	6

Final Year Specialisations Subjects

These will be selected from the following list of subjects. Unless class numbers warrant, only eight subjects will be offered in any year.

Note: A pre-requisite of 'all Year 2 subjects or equivalent' applies to EACH Final Year Specialisation Subject in addition to any other pre- or co-requisite given.

Subjects		Session	Credit Points
ECTE401	Fast Signal Processing Algorithms	Autumn/ Spring	3
ECTE402	Stochastic Signal Processing	Autumn/ Spring	3
ECTE403	Image and Video Processing	Autumn/ Spring	3
ECTE404	Adaptive Signal Processing	Autumn/ Spring	3
ECTE405	Speech and Audio Processing	Autumn/ Spring	3
ECTE412	DC-Sourced Power Electronics	Autumn/ Spring	3
ECTE413	Micro-Electronics	Autumn/ Spring	3
ECTE431	Real-time Computing	Autumn/ Spring	3
ECTE432	Computer Systems	Autumn/ Spring	3
ECTE441	Intelligent Control	Autumn/ Spring	3
ECTE463	Transmission Systems	Autumn/ Spring	3
ECTE464	Antennas and Propagation	Autumn/ Spring	3
ECTE465	Wireless Communications	Autumn/ Spring	3
ECTE466	Spread Spectrum Communications	Autumn/ Spring	3
ECTE467	Mobile Networks	Autumn/ Spring	3
ECTE468	Error Control Coding	Autumn/ Spring	3
ECTE481	Internet Protocols	Autumn/ Spring	3
ECTE482	Internet Engineering	Autumn/ Spring	3
ECTE484	Network Design and Analysis	Autumn/ Spring	3
ECTE486	Telecommunications Network Management	Autumn/ Spring	3

Telecommunications Option

Year 4/ Stage 6:

With the approval of the Head of School, students may select:

- (a) one six credit point, 200 or 300 or 400-level subject from those listed in the General Schedule and offered by EITHER:
 - (i) the School of Information Technology and Computer Science (CSCI, IACT or ITCS); or
 - (ii) the School of Mathematics and Applied Statistics (MATH or STAT).

OR

- (b) ECTE281 Embedded Internet Systems.

Note that this selection may be constrained by pre- and co-requisites and timetabling.

Professional Recognition

The Bachelor of Engineering (Computer Engineering) degree is accredited by Engineers Australia, the Australian Computer Society and the Singapore Professional Engineers Board.

The Bachelor of Engineering (Electrical Engineering) degree is accredited by Engineers Australia and the Singapore Professional Engineers Board.

The Bachelor of Engineering (Internet Engineering) degree is provisionally accredited by Engineers Australia.

The Bachelor of Engineering (Telecommunications Engineering) degree is accredited by Engineers Australia.

Bachelor of Information and Communication Technology

Testamur Title of Degree:	Bachelor of Information and Communication Technology
Abbreviation:	BInfoTech
Home Faculty:	Informatics
Duration:	4 years or part-time equivalent
Total Credit Points:	192
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Standard Course Fee:	HECS (local); International \$8,900 per session
Location:	Wollongong
UOW Course Code:	706A
UAC Code:	754111, 754112, 754115.
CRICOS Code:	003291D

Overview

This degree is designed to provide graduates with the necessary knowledge and skills to be successful in the dynamic and changing world of Information Technology (IT).

The degree meets the needs of future IT professionals by ensuring students are taught foundation skills in areas such as programming, World Wide Web applications and the technical management of IT. In addition, students are equipped with the

knowledge that enables them to make sense of changing business environments, the role of IT in this change and where this change is likely to lead.

Students undertake a major in one of the following areas:

- Business Information Systems
- eBusiness Management
- eBusiness Technologies
- Network and Systems Management
- Software Engineering

In providing a multi-disciplinary approach to the study of Information Technology (IT), students may combine the major studies listed above or complete a second major in an area such as Electronic Commerce, Data Analysis, Marketing or Modelling.

In addition, students may choose subjects from Multimedia, Management, Law, Communications and Science and Technology Studies.

Students are awarded an Honours degree if they perform at a sufficiently high level throughout their studies and enrol in the research project subjects in their fourth year.

Entry Requirements / Assumed Knowledge

Approximate UAI: 80

Assumed Knowledge: Any two units of English plus Mathematics

For entry requirements for students 21 and over or international students, please refer to the relevant prospectus.

Advanced Standing

Information about Approved Credit Transfer Arrangements with domestic providers is available at:
<http://www.uow.edu.au/handbook/advancedstanding/>

Information about Approved Credit Transfer Arrangements with international providers is available at:
<http://www.uow.edu.au/discover/international/COURSES/courseset.html#advanced>

Course Requirements

A candidate must satisfactorily complete the following requirements to be eligible for the award of the degree of Bachelor of Information and Communication Technology:

1. Candidates must satisfactorily complete at least 192 credit points of subjects prescribed in one of the major studies listed below. The programs listed below are guidelines as to how best to proceed through the course. Candidates may enrol as they see fit, but must satisfactorily complete all prescribed compulsory subjects, and the credit points prescribed for electives, and satisfy all other requirements listed below to be eligible for the award.
2. No more than 60 credit points may be 100-level subjects.
3. At least 36 credit points must be 300-level subjects.
4. At least 42 credit points must be chosen from the IACT 400-Level Subject List.
5. All students must satisfactorily complete one of IACT450 or IACT451 (admission to IACT450 is subject to conditions noted in paragraph 6 below). Students may not gain credit for the completion of both subjects.
6. To be eligible for the award of honours, candidates must satisfactorily complete IACT441 and IACT450 within the 42 credit points prescribed in requirement 4.
7. Subject to any other individual subject pre- and co-requisites, entry into 400-level IACT subjects will be permitted upon satisfactory completion of 120 credit points of subjects approved in this program.
8. Entry to IACT441 will be based on:
 - a) overall academic performance,
 - b) a weighted average mark (WAM) of at least 67.5, and
 - c) approval from the Head of School.

Candidates should refer to the Course Rules for calculations of WAMs.

Industry Placement

BInfoTech students must satisfactorily complete two 8 week periods of approved industry placement, assessed in the form of written reports. These are normally undertaken in the summer sessions at the end of second and third year.

In exceptional circumstances where a student has proven substantive work experience in relevant industry they may apply to be exempted from the Industry placement, but, if approved, will be required to undertake an alternative task(s) as specified by the Head of School.

Major Study Areas

Students enrolled in this degree can must complete one of the following approved major studies or combined major studies:

ITE	Software Engineering
ITB	Network and Systems Management
ITD	Business Information Systems
ITI	eBusiness Management
ITJ	eBusiness Technologies
ITEB	Software Engineering / Network and Systems Management
ITED	Software Engineering / Business Information Systems
ITBD	Network and Systems Management / Business Information Systems
ITEE	Software Engineering / Marketing
ITBE	Network and Systems Management / Marketing
ITDE	Business Information Systems / Marketing
ITEF	Software Engineering / Data Analysis
ITBF	Network and Systems Management / Data Analysis
ITDF	Business Information Systems / Data Analysis
ITEG	Software Engineering / Modelling
ITBG	Network and Systems Management / Modelling
ITDG	Business Information Systems / Modelling
ITEH	Software Engineering / Electronic Commerce
ITBH	Network and Systems Management / Electronic Commerce
ITDH	Business Information Systems / Electronic Commerce
ITDI	Business Information Systems / eBusiness Management
ITDJ	Business Information Systems / eBusiness Technologies
ITIJ	eBusiness Management / eBusiness Technologies

Additional Subjects List

The following subjects are approved for inclusion in the BInfoTech degree.

When choosing subjects from the Additional Subject List, it is recommended that students examine sequences suggested in the handouts produced by the School. Check subject information to ensure that pre- and co-requisites are met.

Subjects	Session	Credit Points	
ACCY100	Accounting IA	Autumn	6
ACCY102	Accounting IB	Spring	6
ACCY231	Information Systems in Accounting	Spring	6
ACCY380	Accounting for Information Technology	Autumn/ Spring	6
BUSS102	Computer Systems	Autumn	6
BUSS111	Business Programming I (not to count with CSCI114)	Spring	6
BUSS201	User-Centered Business Programming	Autumn	6
BUSS211	Requirements Determination and Systems Analysis	Autumn	6
BUSS212	Database Management Systems	Spring	6
BUSS213	Multimedia in Organisations	Spring	6
BUSS214	Business Programming II	Autumn	6
BUSS215	Business Programming III	Spring	6
BUSS218	Systems Design and Architecture	Spring	6
BUSS308	Computer Systems Management	Spring	6
BUSS311	Advanced Database Management Systems	Autumn	6
BUSS312	Distributed Information Systems	Autumn	6
BUSS315	Knowledge-Based Information Systems	Autumn	6
BUSS316	Information Systems Prototyping	Spring	6
BUSS317	Business Programming IV	Spring	6
COMM351	Business Ethics and Governance	N/A in 2004	6
CCS105	Introduction to Communications and Cultural Studies	Autumn	6
CSCI102	Systems	Spring	6
CSCI103	Algorithms and Problem Solving	Autumn/ Spring	6
CSCI112	Fundamentals of Computer Science	Spring	6
CSCI114	Procedural Programming (not to count with BUSS111)	Autumn/ Spring	6
CSCI124	Object Programming	Spring	6
CSCI203	Algorithms and Data Structures	Autumn	6
CSCI204	The C Family and Unix	Autumn/ Spring	6
CSCI205	Development Methods and Tools	Spring	6
CSCI212	Interacting Systems	Autumn	6
CSCI213	Java Programming and The Internet	Autumn/ Spring	6
CSCI214	Distributed Systems	Spring	6
CSCI222	Systems Development	N/A in 2004	6
CSCI235	Databases	Spring	6
CSCI236	3D Modelling and Animation	N/A in 2004	6
CSCI262	Systems Security	Spring	6
CSCI311	Software Process Management	Autumn	6
CSCI313	Professional Programming Practices	N/A in 2004	6
CSCI315	Database design and Implementation	Autumn	6

CSCI317	Database Performance Tuning	Spring	6
CSCI321	Software Project	Annual	12
CSCI322	Systems Administration	Spring	6
CSCI325	Software Engineering Formal Methods	Autumn	6
CSCI333	Compilers	N/A in 2004	6
CSCI334	Interfacing and Real Time Programming	Spring	6
CSCI336	Computer Graphics	Autumn	6
CSCI337	Organisation of Programming Languages	Spring	6
CSCI361	Computer Security	Autumn	6
CSCI368	Network Security	Spring	6
CSCI399	Server Technology	Autumn	6
ECON101	Macroeconomic Essentials for Business	Autumn/ Spring	6
ECON111	Introductory Microeconomics	Autumn/ Spring	6
ECON215	Microeconomic Theory and Policy	Autumn/ Spring	8
ECON319	Electronic Commerce and the Economics of Information	Spring	8
EDUE313	Interactive Multimedia by Design	Autumn	6
EDUE314	Interactivity and The Web	Spring	6
EDUE413	Managing Multimedia Resources	Autumn	6
EDUE414	Cognition, Interface and Interactivity	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
ECTE182	Internet Technology 1	Spring	6
ECTE195	Design and Management	Autumn	6
ECTE233	Digital Hardware I	Autumn	6
ECTE282	Internet Systems	Autumn	6
ECTE283	Internet Technology II	Spring	6
ECTE333	Digital Hardware II	Spring	6
ECTE363	Communication Theory	Autumn	6
ECTE364	Telecommunications Networks 1	Autumn	6
ECTE491	Computer Architectures	Autumn	6
ELS151	Introduction to English for Academic Purposes: Second Language Perspective	Autumn/ Spring	6
ELS152	English Language Studies	Spring	6
ELS161	English for Academic Purposes: First Language Perspective	Autumn	6
IACT303	World Wide Networking	Spring	6
IACT304	eBusiness Fundamentals	Autumn	6
IACT305	eBusiness Technologies	Autumn	6
ITCS201	Markup Languages	Autumn	6
ITCS301	Exploiting Collaborative Technologies	N/A in 2004	6
LAW100	Law in Society	Autumn	6
LAW210	Contract Law	Spring	6
LAW331	Intellectual Property Law	N/A in 2004	6
LAW348	Media Law	Spring	6
MATH121	Discrete Mathematics	Autumn	6
MATH141	Mathematics 1C Part 1	Autumn	6
MATH142	Mathematics 1C Part 2	Spring	6
MATH161	Mathematics 1E Part 1	Spring	6
MATH162	Mathematics 1E Part 2	Summer	6
MATH187	Mathematics 1A Part 1	Autumn	6
MATH188	Mathematics 1A Part 2	Spring	6
MATH201	Multivariate and Vector Calculus	Autumn	6
MATH202	Differential Equations 2	Spring	6
MATH203	Linear Algebra	Autumn	6
MATH212	Applied Mathematical Modelling 2	Spring	6
MATH302	Differential Equations 3	Spring	6
MATH312	Applied Mathematical Modelling 3	Autumn	6
MATH313	Industrial Mathematical Modelling	Spring	6
MGMT102	Business Communications	Autumn	6
MGMT110	Introduction to Management and Employment Relations	Autumn/ Spring	6
MGMT200	Management and Electronic Business	Spring	6
MGMT201	Organisational Behaviour	Autumn	6
MGMT202	Management of Change	Spring	6
MGMT220	Organisational Analysis	Autumn	6
MGMT300	Innovation and Electronic Commerce	Spring	6
MGMT314	Business Policy	Autumn	6
MGMT321	Management of Occupational Health and Safety	Spring	6
MGMT398	Human Resource Management	Autumn	6
MARK101	Marketing Principles	Autumn/ Spring	6
MARK217	Consumer Behaviour	Autumn	6
MARK270	Services Marketing	Autumn	6
MARK301	Marketing on the Internet	Spring	6
MARK317	Business to Business Marketing	Autumn	6
MARK343	International Marketing	Spring	6
MARK344	Marketing Strategy	Spring	6
MARK356	New Product Marketing	Autumn	6
MARK359	Sales Management	Spring	6
MARK397	Retail Marketing Management	Spring	6

Course Information

PHYS142	Fundamentals of Physics B	Spring	6
POL111	Introduction to Politics	Autumn	6
POL224	Politics and the Media	Spring	8
POL225	International Relations: An Introduction	Autumn	8
SOC241	Culture and Communication	N/A in 2004	8
STAT131	Understanding Variation and Uncertainty	Autumn/ Spring	8
STAT231	Probability and Random Variables	Autumn	6
STAT232	Estimation and Hypothesis Testing	Spring	6
STAT332	Multiple Regression And Time Series	Spring	6
STAT304	Operations Research and Applied Probability	Spring	6
STS100	Social Aspects of Science and Technology	Autumn	6
STS116	Environment in Crisis: Technology and Society	Spring	6
STS221	Technology in Society: East and West	Spring	6
STS228	Computers in Society II	Spring	8
STS241	Information and Communication Theory	Spring	6

or any subject approved by the Head of School

IACT 400 level Subjects

Note: pre-requisites for all 400-level subjects is a minimum of 24 credit points at 300-level

Subjects	Session	Credit Points	
IACT401	IT Strategic Planning	Spring	6
IACT402	Applied Project Management	Autumn	6
IACT403	Human Computer Interface	Spring	6
IACT404	International Telecommunications Policy Issues	N/A in 2004	6
IACT405	Information Technology and Innovation	Autumn	6
IACT406	Strategic eBusiness Solutions	Spring	6
IACT416	Organisational Issues in Information Technology	N/A in 2004	6
IACT417	Information Management	Autumn	6
IACT418	Corporate Network Management	Autumn	6
IACT419	On-Line Information Services	Spring	6
IACT422	Case Studies in Information Technology Applications	Spring	6
IACT424	Corporate Network Design and Implementation	Spring	6
IACT426	Information Society, Knowledge Work and Information Technology	N/A in 2004	6
IACT430	Special Topics in Information and Communication Technology	N/A in 2004	6
IACT431	Special Topics in Information and Communication Technology - A	N/A in 2004	6
IACT432	Special Topics in Information and Communication Technology - B	N/A in 2004	6
IACT433	Special Topics in Telecommunications Issues	N/A in 2004	6
IACT441	IT Research Methodology	Autumn	6
IACT450	Research Report	Spring	18
CSCI407	Corba & Enterprise Java	Spring	6
CSCI408	Distributed Java	N/A in 2004	6
CSCI425	Topics in Software Engineering	Autumn	6
CSCI444	Perception and Planning	Spring	6
CSCI445	Parallel Computing	N/A in 2004	6
CSCI446	Multimedia Studies	Autumn	6
CSCI450	Software Engineering Requirements and Specifications	Spring	6
CSCI457	Advanced Topics in Database Management	Spring	6
CSCI463	Advanced Computer Graphics	N/A in 2004	6
CSCI464	Neural Computing	Autumn	6
CSCI465	Design and Analysis of Algorithms	N/A in 2004	6
CSCI466	Coding for Secure Communication	N/A in 2004	6
CSCI467	Complexity Theory	N/A in 2004	6
CSCI471	Advanced Computer Security	Spring	6
INFO411	Data Mining & Knowledge Discovery	Spring	6
INFO412	Mathematics for Cryptography	Autumn	6
INFO413	Information Theory	Spring	6
ITCS429	Concept and Issues in Healthcare Computing	Spring	6
ITCS430	Introduction to Health Informatics	Autumn	6
ITCS431	Advanced Web Application Development	Spring	6
ITCS432	Web Design	Spring	6
ITCS436	Detailed Design of Integrated Solutions for eBusiness	Spring	6
ITCS450	Patterns for eBusiness	Autumn	6
ITCS451	Web Services for Dynamic eBusiness	Spring	6

Note: Not all subjects available every year.

Honours

To qualify for an award of Honours students must satisfactorily complete IACT441 and IACT450 and any other requirements listed in Year 4 (Honours) of one of the Major study programs listed below.

Students intending to do Honours should apply and be accepted by the end of December of the previous year.

Major Study Areas

Software Engineering (code ITE)

Major Study

To satisfy the requirements for a major study in Software Engineering, a student shall satisfactorily complete the following program:

Subjects	Session	Credit Points
Year 1		
CSCI102 Systems	Spring	6
CSCI103 Algorithms and Problem Solving	Autumn	6
CSCI114 Procedural Programming	Autumn	6
CSCI124 Object Programming	Spring	6
STAT131 Understanding Variation and Uncertainty	Autumn/ Spring	6
ECTE182 Internet Technology I	Spring	6
Plus 100-level subjects chosen from the Additional Subjects List, or second major subjects.		12
Year 2		
CSCI204 The C Family and Unix	Autumn/ Spring	6
CSCI205 Development Methods and Tools	Spring	6
CSCI235 Databases	Spring	6
CSCI213 Java Programming and the Internet	Autumn/ Spring	6
IACT201 Information Technology and Citizens' Rights	Autumn	6
IACT202 The Structure and Organisation of Telecommunications	Spring	6
Plus 200-level subjects chosen from the Additional Subjects List, or second major subjects.		12
Year 3		
CSCI311 Software Process Management	Autumn	6
CSCI321 Project	Annual	12
CSCI325 Software Engineering Formal Methods	Autumn	6
IACT301 Information and Communication Security Issues	Spring	6
IACT302 Corporate Network Planning	Autumn	6
Plus 200/300-level subjects chosen from the Additional Subjects List, or second major subjects.		12
Year 4 (non-Honours)		
IACT451 IT Project	N/A in 2004	12
Plus two subjects chosen from:		
CSCI425 Topics in Software Engineering	Autumn	6
CSCI450 Software Requirement and Specifications	Spring	6
IACT402 Applied Project Management	Autumn	6
Plus additional subjects chosen from the IACT400 Level Subjects List		18
Plus one subject chosen from the IACT400 Level Subjects List or the Additional Subjects List		6
Year 4 (Honours)		
IACT441 IT Research Methodology	Autumn	6
IACT450 Research Report	Spring	18
Plus two subjects chosen from:		
CSCI425 Topics in Software Engineering	Autumn	6
CSCI450 Software Requirement and Specifications	Spring	6
IACT402 Applied Project Management	Autumn	6
Plus one subject chosen from the IACT400 Level Subjects List		6
Plus one subject chosen from the IACT400 Level Subjects List or the Additional Subjects List		6

Double Major

A major in Software Engineering can be combined with Network and Systems Management, Business Information Systems, Marketing, Data Analysis, Modelling or Electronic Commerce.

Network and Systems Management (code ITB)

Major Study

To satisfy the requirements for a major study in Network and Systems Management, a student shall satisfactorily complete the following program:

Course Information

Subjects	Session	Credit Points
Year 1		
CSCI102 Systems	Spring	6
CSCI103 Algorithms and Problem Solving	Autumn/ Spring	6
CSCI114 Procedural Programming	Autumn/ Spring	6
CSCI124 Object Programming	Spring	6
STAT131 Understanding Variation and Uncertainty	Autumn/ Spring	6
ECTE182 Internet Technology I	Spring	6
Plus 100-level subjects chosen from the Additional Subjects List, or second major subjects.		12
Year 2		
CSCI204 The C Family and Unix	Autumn/ Spring	6
CSCI212 Interacting Systems	Autumn	6
CSCI213 Java Programming and the Internet	Autumn/ Spring	6
ECTE283 Internet Technology II	Spring	6
IACT201 Information Technology and Citizens' Rights	Autumn	6
IACT202 The Structure and Organisation of Telecommunications	Spring	6
Plus 200-level subjects chosen from the Additional Subjects List, or second major subjects.		12
Year 3		
CSCI322 Systems Administration	Spring	6
CSCI399 Server Technology	Autumn	6
IACT301 Information and Communication Security Issues	Spring	6
IACT302 Corporate Network Planning	Autumn	6
Plus 200/300-level subjects chosen from the Additional Subjects List, or second major subjects.		24
Year 4 (Non-Honours)		
IACT451 IT Project	N/A in 2004	12
IACT418 Corporate Network Management	Autumn	6
IACT424 Corporate Network Design and Implementation	Spring	6
Plus additional subjects chosen from the IACT400 Level Subjects List		18
Plus one subject chosen from the IACT400 Level Subjects List or the Additional Subjects List		6
Year 4 (Honours)		
IACT441 IT Research Methodology	Autumn	6
IACT450 Research Report	Spring	18
IACT418 Corporate Network Management	Autumn	6
IACT424 Corporate Network Design and Implementation	Spring	6
Plus one subject chosen from the IACT400 Level Subjects List		6
Plus one subject chosen from the IACT400 Level Subjects List or the Additional Subjects List		6

Double Major

A major in Network and Systems Management can be combined with Software Engineering, Business Information Systems, Marketing, Data Analysis, Modelling or Electronic Commerce. Second major requirements are listed below.

Business Information Systems (code ITD)

Major Study

To satisfy the requirements for a major study in Business Information Systems, a student shall satisfactorily complete the following program:

Subjects	Session	Credit Points
Year 1		
CSCI102 Systems	Spring	6
STAT131 Understanding Variation and Uncertainty	Autumn/ Spring	6
Plus either: BUSS111 Business Programming I	Spring	6
or CSCI114 Procedural Programming	Autumn/ Spring	6
Plus 100-level subjects chosen from the Additional Subject List, or second major subjects		18
Plus 100-level subjects chosen from the General Schedule		12
Year 2		
BUSS211 Requirements Determination and Systems Analysis	Autumn	6
BUSS212 Database Management Systems	Spring	6
BUSS214 Business Programming II	Autumn	6
IACT201 Information Technology and Citizens' Rights	Autumn	6
IACT202 The Structure and Organisation of Telecommunications	Spring	6
Plus 200-level subjects chosen from the Additional Subject List, or second major subjects		18
Note: BUSS218 is strongly recommended by not mandatory		
Year 3		
BUSS311 Advanced Database Management Systems	Autumn	6

BUSS312	Distributed Information Systems	Autumn	6
BUSS316	Information Systems Prototyping	Spring	6
IACT301	Information and Communication Security Issues	Spring	6
IACT302	Corporate Network Planning	Autumn	6
Plus either:			
BUSS317	Business Programming IV	Spring	6
or			
BUSS308	Computer Systems Management	Spring	6
Plus 200/300-level subjects chosen from the Additional Subject List, or second major subjects			12

Year 4(Non-Honours)

IACT451	IT Project	N/A in 2004	12
Plus additional subjects chosen from the IACT400 Level Subjects List			30
Plus one subject chosen from the IACT400 Level Subjects List or the Additional Subjects List			6

Year 4 (Honours)

IACT441	IT Research Methodology	Autumn	6
IACT450	Research Report	Spring	18
Plus additional subjects chosen from the IACT400 Level Subjects List			18
Plus one subject chosen from the IACT400 Level Subjects List or the Additional Subjects List			6

Double Major

A major in Business Information Systems can be combined with Software Engineering, Network and Systems Management, eBusiness Management, eBusiness Technologies, Marketing, Data Analysis, Modelling or Electronic Commerce. Second major requirements are listed below.

eBusiness Management (code ITI)

Conducting business online is an increasingly essential feature of an organisation's operation, and the challenges faced are an integrated mix of adaptive business strategies that exploit rapidly evolving technologies. This new major emphasises the business strategy perspective, while providing an understanding of the relevance of both business strategy and IT.

Major Study

To satisfy the requirements for a major study in eBusiness Management, a student shall satisfactorily complete the following program:

Subjects	Session	Credit Points	
Year 1			
MGMT102	Business Communications	Spring	6
CSCI102	Systems	Spring	6
ECTE182	Internet Technology 1	Spring	6
Plus either:			
BUSS111	Business Programming I	Spring/ Summer	6
or			
CSCI114	Procedural Programming	Autumn/ Spring	6
Plus 100-level subjects chosen from the Additional Subject List, or second major subjects			12
Plus 100-level subjects chosen from the General Schedule			12

Note: Students are advised that when choosing subjects at 100-level they should plan ahead and carefully consider the impact on their 200-level choices. Some subjects at 200-level have specific pre-requisites.

Year 2

IACT201	Information Technology and Citizens' Rights	Autumn	6
IACT202	The Structure and Organisation of Telecommunications	Spring	6
ITCS201	Markup Languages	Autumn	6
Plus at least one of the following subjects:			
BUSS211	Requirements Determination and Systems Analysis	Autumn	6
CSCI205	Development Methods & Tools	Spring	6
Plus at least one of the following subjects:			
BUSS212	Database Management Systems	Spring	6
CSCI235	Databases	Spring	6
Plus at least one of the following subjects:			
MGMT200	Management & Electronic Business	Spring	6
MGMT201	Organisational Behaviour	Autumn	6
MGMT220	Organisational Studies	Autumn	6
Plus 200-level subjects chosen from the Additional Subject List, or second major subjects			12

Year 3

IACT301	Information and Communication Security Issues	Spring	6
IACT302	Corporate Network Planning	Autumn	6
IACT304	eBusiness Fundamentals	Autumn	6

Course Information

Plus at least one of the following subjects:

MGMT300	Innovation & Electronic Commerce	Spring	6
MGMT309	Supply Chain Management	Spring	6
MGMT311	Management of Change	Spring	6
Plus 300-level subjects chosen from the Additional Subject List, or second major subjects			24

Year 4(Non-Honours)

ITCS450	Patterns for eBusiness	Autumn	6
IAC406	Strategic eBusiness Solutions	Spring	6
IAC451	IT Project	N/A in 2004	12
Plus additional subjects chosen from the IACT400 Level Subjects List			18
Plus one subject chosen from the IACT400 Level Subjects List or the Additional Subjects List			6

Year 4 (Honours)

ITCS450	Patterns for eBusiness	Autumn	6
IAC406	Strategic eBusiness Solutions	Spring	6
IAC441	IT Research Methodology	Autumn	6
IAC450	Research Report	Spring	18
Plus one subject chosen from the IACT400 Level Subjects List			6
Plus one subject chosen from the IACT400 Level Subjects List or the Additional Subjects List			6

Double Major

A major in eBusiness Management can be combined with Business Information Systems or eBusiness Technologies. Second major requirements are listed above and below.

eBusiness Technologies (code ITJ)

Conducting business online is an increasingly essential feature of an organisation's operation, and the challenges faced are an integrated mix of adaptive business strategies that exploit rapidly evolving technologies. This new major emphasises a hands-on system development perspective, while providing an understanding of the relevance of both business strategy and IT.

Major Study

To satisfy the requirements for a major study in eBusiness Technologies, a student shall satisfactorily complete the following program:

Subjects	Session	Credit Points	
Year 1			
MGMT102	Business Communications	Spring	6
CSCI102	Systems	Spring	6
ECTE182	Internet Technology 1	Spring	6
Plus either:			
BUSS111	Business Programming I	Spring	6
or			
CSCI114	Procedural Programming	Autumn/Spring	6
Plus 100-level subjects chosen from the Additional Subject List, or second major subjects			12
Plus 100-level subjects chosen from the General Schedule			12

Note: Students are advised that when choosing subjects at 100-level they should plan ahead and carefully consider the impact on their 200-level choices. Some subjects at 200-level have specific pre-requisites.

Year 2

IAC201	Information Technology and Citizens' Rights	Autumn	6
IAC202	The Structure and Organisation of Telecommunications	Spring	6
ITCS201	Markup Languages	Autumn	6
Plus at least one of the following subjects:			
BUSS211	Requirements Determination and Systems Analysis	Autumn	6
CSCI205	Development Methods & Tools	Spring	6
Plus at least one of the following subjects:			
BUSS212	Database Management Systems	Spring	6
CSCI235	Databases	Spring	6
Plus either:			
BUSS214	Business Programming II	Autumn	6
or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus 200-level subjects chosen from the Additional Subject List, or second major subjects			12

Year 3

IAC301	Information and Communication Security Issues	Spring	6
IAC302	Corporate Network Planning	Autumn	6
IAC305	eBusiness Technologies	Autumn	6
ITCS301	Exploiting Collaborative Technologies	Spring	6
Plus 300-level subjects chosen from the Additional Subject List, or second major subjects			24

Year 4 (Non-Honours)

ITCS450	Patterns for eBusiness	Autumn	6
IACT451	IT Project	N/A in 2004	12
Plus one subject chosen from the following:			
ITCS436	Detailed Design of Integrated Solutions for eBusiness	Spring	6
ITCS451	Web Services for Dynamic eBusiness	Spring	6
Plus additional subjects chosen from the IACT400 Level Subjects List			18
Plus one subject chosen from the IACT400 Level Subjects List or the Additional Subjects List			6

Year 4 (Honours)

ITCS450	Patterns for eBusiness	Autumn	6
IACT441	IT Research Methodology	Autumn	6
IACT450	Research Report	Spring	18
Plus one subjects chosen from the following:			
ITCS436	Detailed Design of Integrated Solutions for eBusiness	Spring	6
ITCS451	Web Services for Dynamic eBusiness	Spring	6
Plus one subject chosen from the IACT400 Level Subjects List			6
Plus one subject chosen from the IACT400 Level Subjects List or the Additional Subjects List			6

Double Major

A major in eBusiness Technologies can be combined with Business Information Systems or eBusiness Management. Second major requirements are listed above.

Marketing Combined Major Study (Code ITEE, ITBE or ITDE)

This double major requires satisfactory completion of a major study in Business Information Systems, Network and Systems Management or Software Engineering and satisfactory completion of a major study in Marketing, as outlined in the Bachelor of Commerce entry. Note, however, that students are not required to complete the core subjects as listed in the Bachelor of Commerce except where those subjects are prerequisites to subjects in the Marketing major. All students must satisfy subject prerequisites except where waivers have been granted.

Data Analysis Combined Major study (Code ITEF, ITBF or ITDF)

This double major requires satisfactory completion of a major study in Business Information Systems, Network and Systems Management or Software Engineering and satisfactory completion of the following approved 54 credit point major in Data Analysis:

Subjects	Session	Credit Points	
Year 1			
MATH187	Mathematics 1A Part 1	Autumn	6
MATH188	Mathematics 1A Part 2	Spring	6
Year 2			
STAT231	Probability and Random Variables	Autumn	6
STAT232	Estimation and Hypothesis Testing	Spring	6
MATH203	Linear Algebra	Autumn	6
Year 3			
STAT332	Multiple Regression and Time Series	Spring	6
STAT335	Sample Surveys and Experimental Design	Autumn	6
STAT304	Operations Research and Applied Probability	Spring	6

Modelling Combined Major study (Code ITEG, ITBG or ITDG)

This double major requires satisfactory completion of a major study in Business Information Systems, Network and Systems Management or Software Engineering and satisfactory completion of the following approved 54 credit point major in Modelling:

Subjects	Session	Credit Points	
Year 1			
MATH187	Mathematics 1A Part 1	Autumn	6
MATH188	Mathematics 1A Part 2	Spring	6
Year 2			
MATH201	Multivariate and Vector Calculus	Autumn	6
MATH202	Differential Equations 2	Spring	6
MATH212	Applied Mathematical Modelling 2	Spring	6

Year 3

MATH302	Differential Equations 3	Spring	6
MATH312	Applied Mathematical Modelling 3	Autumn	6
MATH313	Industrial Mathematical Modelling	Spring	6

Electronic Commerce Combined Major study (code ITEH, ITBH or ITDH)

This double major requires satisfactory completion of a major study in Business Information Systems, Network and Systems Management or Software Engineering and satisfactory completion of the following approved 48 credit point major in Electronic Commerce:

Subjects	Session	Credit Points
200-Level		
200-level Electronic Commerce subjects		18
300-Level		
IACT303 World Wide Networking	Spring	6
Plus 300-level Electronic Commerce subjects		18
400-Level		
400-level Electronic Commerce subject		6
Electronic Commerce Subjects		
ACCY231 Information Systems in Accounting	Spring	6
ACCY332 Advanced Information Systems in Accounting	Autumn	6
ACCY335 Systems Analysis and Design in Accounting and Finance	Spring	6
BUSS211 Requirements Determination and Systems Analysis	Autumn	6
BUSS212 Database Management Systems	Spring	6
BUSS311 Advanced Database Management Systems	Autumn	6
BUSS312 Distributed Information Systems	Autumn	6
CSCI213 Java Programming and the Internet	Autumn/ Spring	6
CSCI214 Distributed Systems	Spring	6
CSCI236 3D Modelling and Animation	N/A in 2004	6
CSCI311 Software Process Management	Autumn	6
CSCI361 Computer Security	Autumn	6
CSCI399 Server Technology	Autumn	6
ECON230 Quantitative Analysis for Decision Making	Spring	6
ECON312 Industrial Economics	Autumn	6
ECON319 Electronic Commerce and the Economics of Information	Spring	6
FIN353 Global Electronic Finance	Autumn	6
IACT201 Information Technology and Citizens' Rights	Autumn	6
IACT304 eBusiness Fundamentals	Autumn	6
IACT305 eBusiness Technologies	Autumn	6
IACT406 Strategic eBusiness Solutions	Spring	6
IACT417 Information Management	Autumn	6
IACT419 Online Information Services	Spring	6
ITCS436 Detailed Design of Integrated Solutions for eBusiness	Spring	6
ITCS450 Patterns for eBusiness	Autumn	6
ITCS451 Web Services for Dynamic eBusiness	Spring	6
LAW210 Contract Law	Spring	6
LAW317 E-Commerce Law	N/A in 2004	6
LAW331 Intellectual Property Law	N/A in 2004	6
MARK301 Marketing on the Internet	Spring	6
MGMT200 Management and Electronic Business	Spring	6
MGMT300 Innovation and Electronic Commerce	Spring	6

Professional Recognition

The major studies in Business Information Systems, Network and Systems Management and Software Engineering have recently been revised, therefore re-accreditation by the Australian Computer Society as meeting requirements for membership at a 'Professional' level is currently being sought.

Accreditation for the new major studies in eBusiness Management and eBusiness Technologies is also being sought.

Bachelor of Information Technology

Testamur Title of Degree:	Bachelor of Information Technology
Abbreviation:	BIT
Home Faculty:	Informatics
Duration:	3 years or part-time equivalent
Total Credit Points:	144
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Standard Course Fee:	HECS (local); International \$8,900 per session
Location:	Year 1 – Off-shore; Years 2 and 3 Wollongong or off-shore depending on the overseas institution.
UOW Course Code:	868, SN868
UAC Code:	N/A
CRICOS Code:	031440G

Overview

This three-year full-time degree is designed for offshore delivery. Entry into Year 2 or 3 (on-shore Wollongong Campus) is possible for students who have completed a recognised offshore program, or who have at least 48 credit points of appropriate advanced standing, including specified credit for all Year 1 core subjects, from another recognised institution.

The degree has two major studies: Information Systems and Computing.

Entry Requirements / Assumed Knowledge

Entry into Years 2 or 3 (Wollongong Campus), is conditional on successful completion of a recognised overseas program or other approved advanced standing.

Advanced Standing

Information about Approved Credit Transfer Arrangements with domestic providers is available at:
<http://www.uow.edu.au/handbook/advancedstanding/>

Information about Approved Credit Transfer Arrangements with international providers is available at:
<http://www.uow.edu.au/discover/international/COURSES/courseset.html#advanced>

Course Requirements

To qualify for the award of the degree of Bachelor of Information Technology, candidates must satisfactorily complete at least 144 credit points as set out in one of the course structures below. Note that no more than 24 credit points (i.e. 1/6) of subjects can be at PC grade.

Computing Major

Subjects	Session	Credit Points
Year 1 -(not available onshore)		
CSCI102 Systems	Spring	6
CSCI103 Algorithms and Problem Solving	Autumn/ Spring	6
CSCI114 Procedural Programming	Autumn/ Spring	6
CSCI124 Object Programming	Spring	6
MATH121 Discrete Mathematics	Autumn	6
STAT131 Understanding Variation and Uncertainty	Autumn/ Spring	6
Plus 100-level subjects chosen from the BIT Electives Schedule or General Schedule		12
Year 2		
CSCI203 Algorithms and Data Structures	Autumn	6
CSCI204 The C Family and Unix	Autumn/ Spring	6
CSCI212 Interacting Systems	Autumn	6
CSCI213 Java Programming and the Internet	Autumn/ Spring	6
CSCI222 Systems Development	N/A in 2004	6
CSCI235 Databases	Spring	6
IACT201 Information Technology and Citizens Rights	Autumn	6
IACT202 The Structure and Organisation of Telecommunications	Spring	6

Year 3

CSCI321	Project	Annual	12
CSCI311	Software Process Management	Autumn	6
IACT302	Corporate Network Planning	Spring	6
CSCI315	Database Design and Implementation	Spring	6
IACT301	Information and Communication Security Issues	Autumn	6
Plus 200/300-level subjects chosen from the BIT Electives Schedule.			12

Information Systems Major

Subjects	Session	Credit Points	
Year 1			
CSCI102	Systems	Spring	6
CSCI103	Algorithms and Problem Solving	Autumn/ Spring	6
CSCI114	Procedural Programming	Autumn/ Spring	6
CSCI124	Object Programming	Spring	6
MATH121	Discrete Mathematics	Autumn	6
STAT131	Understanding Variation and Uncertainty	Autumn/ Spring	6
Plus 100-level subjects chosen from the BIT Electives Schedule or General Schedule			12

Year2

BUSS201	User-Centred Business Programming	Autumn	6
BUSS211	Requirements Determination and Systems Analysis	Autumn	6
BUSS214	Business Programming II	Autumn	6
IACT201	Information Technology and Citizens' Rights	Autumn	6
BUSS212	Database Management Systems	Spring	6
BUSS213	Multimedia in Organisations	Spring	6
BUSS215	Business Programming III	Spring	6
IACT202	The Structure and Organisation of Telecommunications	Spring	6

Year 3

BUSS311	Advanced Database Management Systems	Autumn	6
BUSS312	Distributed Information Systems	Autumn	6
BUSS315	Knowledge-Based Information Systems	Autumn	6
IACT302	Corporate Network Planning	Autumn	6
BUSS316	Information Systems Prototyping	Spring	6
BUSS317	Business Programming IV	Spring	6
BUSS318	Information Systems Project	Spring	6
IACT301	Information and Communication Security Issues	Spring	6

BIT Electives Schedule

Subjects	Session	Credit Points	
BUSS201	User-Centred Business Programming	Autumn	6
BUSS211	Requirements Determination and Systems Analysis	Autumn	6
BUSS212	Database Management Systems	Spring	6
BUSS213	Multimedia in Organisations	Spring	6
BUSS214	Business Programming II	Autumn	6
BUSS215	Business Programming III	Spring	6
BUSS218	Systems Design and Architecture	Spring	6
BUSS308	Computer Systems Management	Spring	6
BUSS311	Advanced Database Management Systems	Autumn	6
BUSS312	Distributed Information Systems	Autumn	6
BUSS315	Knowledge-Based Information Systems	Autumn	6
BUSS316	Information Systems Prototyping	Spring	6
BUSS317	Business Programming IV	Spring	6
BUSS318	Information Systems Project	Spring	6
CSCI112	Fundamentals of Computer Science	Spring	6
CSCI203	Algorithms and Data Structures	Autumn	6
CSCI204	The C Family and Unix	Autumn/ Spring	6
CSCI205	Development Methods and Tools	Spring	6
CSCI212	Interacting Systems	Autumn	6
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
CSCI214	Distributed Systems	Spring	6
CSCI222	Systems Development	N/A in 2004	6
CSCI235	Databases	Spring	6
CSCI236	3D Modelling and Animation	N/A in 2004	6
CSCI262	Systems Security	Spring	6
CSCI311	Software Process Management	Autumn	6

CSCI315	Database Design and Implementation	Autumn	6
CSCI317	Database Performance Tuning	Spring	6
CSCI322	Systems Administration	Spring	6
CSCI324	Human Computer Interface	Spring	6
CSCI325	Software Engineering Formal Methods	Autumn	6
CSCI334	Interface Real Time Programming	Spring	6
CSCI336	Computer Graphics	Autumn	6
CSCI361	Computer Security	Autumn	6
CSCI368	Network Security	Spring	6
CSCI399	Server Technology	Autumn	6
IACT201	Information Technology and Citizens Rights	Autumn	6
IACT202	The Structure and Organisation of Telecommunications	Spring	6
IACT301	Information and Communication Security Issues	Spring	6
IACT302	Corporate Network Planning	Autumn	6
IACT303	World Wide Networking	Spring	6
ITCS201	Markup Languages	Autumn	6
ITCS301	Exploiting Collaborative Technologies	N/A in 2004	6

Professional Recognition

The Bachelor of Information Technology has recently been revised, therefore re-accreditation by the Australian Computer Society as meeting requirements for membership at a 'professional level' is currently being sought.

Bachelor of Internet Science and Technology

Testamur Title of Degree:	Bachelor of Internet Science and Technology
Abbreviation:	BIST
Home Faculty:	Informatics
Duration:	3 years or part-time equivalent
Total Credit Points:	144
Delivery Mode:	Face-to -face
Starting Session(s):	Autumn/Spring
Standard Course Fee:	HECS (local); International \$8,900 per session
Location:	Wollongong; Batemans Bay, Bega, Shoalhaven, Moss Vale;* Dubai; Harbridge, Singapore.
UOW Course Code:	785, BB785, BE785, SH785, MV785, DB785, SN785.
UAC Code:	754114, 754116, 754117, 754118, 754119.
CRICOS Code:	032444G

* The full three years of the Internet Commerce major will be available at Batemans Bay, Bega, Shoalhaven and Moss Vale. Only the first year of the Internet Technology and Internet Applications majors will be offered at these sites.

Overview

The Internet and World Wide Web have revolutionised the way business is conducted and the way information, education and entertainment services are delivered.

In addition, the internet is being upgraded and increasingly being incorporated into public telecommunications systems. With more people using the internet, there is a greater demand for services and information. The next generation of Internet technologies is expected to become a major motivator for on-going business reform over the next five to ten years. The Federal Government has targeted the Internet and the on-line economy as a priority.

This degree provides students with the technical background required to lead the next generation of Internet developments. The degree uses a mix of problem-based learning and more traditional methods used in science and engineering programs. Through collaborative, multidisciplinary project-based learning, students will develop competency in Internet science and technology skills, teamwork and management, giving them a competitive advantage in industry.

This degree has four majors to choose from:

- Internet Technology
- Internet Applications
- Internet Commerce
- Internet Science

All majors include a substantial amount of programming. Common subjects across the majors ensure that students have an understanding of the basics of hardware and some of the legal and social aspects of the Internet.

Entry Requirements / Assumed Knowledge

Approximate UAI: 75

Assumed Knowledge: Any two units of English plus Mathematics

Recommended Studies: HSC Mathematics Extension 1

For entry requirements for students 21 & over or international students, please refer to the relevant prospectus.

Advanced Standing

Information about Approved Credit Transfer Arrangements with domestic providers is available at:
<http://www.uow.edu.au/handbook/advancedstanding/>

Information about Approved Credit Transfer Arrangements with international providers is available at:
<http://www.uow.edu.au/discover/international/COURSES/courseset.html#advanced>

Course Requirements

To be eligible for the award of the degree of Bachelor of Internet Science and Technology, candidates must:

- a) satisfactorily complete at least 144 credit points of subjects prescribed in one of the majors listed below
- b) undertake no more than 60 credit points at 100-level
- c) undertake at least 36 credit points at 300-level

Note: The programs listed below are guidelines as to how best to proceed through the course. Subjects can be undertaken in a different order, however all subjects must be successfully completed to be awarded the degree.

Honours

Candidates who achieve a credit average or better in the Bachelor of Internet Science and Technology are eligible to enrol in an additional year's study towards a Bachelor of Internet Science and Technology (Honours) (BIST (Hons)).

To qualify for the award of Bachelor of Internet Science and Technology (Honours), candidates must complete BIST400. The level of honours awarded at the completion of the course is determined in accordance with the University Course Rule 8.4(2).

The program of study for BIST(Hons), (i.e., BIST400 Internet Science & Technology IV Honours) is 48 credit points and will normally include:

1. an 18 credit point project; and
2. 30 credit points of coursework. This coursework component will consist of individual subjects, including:
 - (a) a research methodology subject, as determined by the Course Coordinator and
 - (b) other subjects, of which 18 credit points must be at 400 level, as approved by the Course Coordinator.

Note: Individual results for the coursework subjects attempted and the project will not be released. Instead, the final result for BIST400 will be calculated by weighting the coursework and project components according to their credit point value.

Major Study Areas

Internet Technology (code IS01)

Major Study

To satisfy the requirements for a major study in Internet Technology, a student shall satisfactorily complete the following approved program:

Subjects	Session	Credit Points
Year 1		
CSCI102 Systems	Spring	6
CSCI103 Algorithms and Problem Solving	Autumn	6
CSCI114 Procedural Programming	Autumn	6
CSCI124 Object Programming	Spring	6
ECTE195 Design and Management	Autumn	6
ECTE182 Internet Technology 1	Spring	6
STAT131 Understanding Variation and Uncertainty	Autumn/ Spring	6
One of the following subjects is recommended, but may be replaced by an approved BIST Year 1 Elective subject:		
MATH141 Mathematics 1C Part 1	Autumn	6
MATH161 Mathematics 1E Part 1	Spring	6
MATH187 Mathematics 1A Part 1	Autumn	6

Year 1 Electives

ACCY100	Accounting 1A	Autumn	6
ACCY102	Accounting 1B	Spring	6
ECON101	Macroeconomic Essentials for Business	Autumn/ Spring	6
ECON111	Introductory Micro Economics	Autumn/ Spring	6
ECTE181	WWW Engineering	Autumn	6
LAW100	Law in Society	Autumn	6
MARK101	Marketing Principles	Autumn/ Spring	6
MATH121	Discrete Mathematics	Autumn	6
MATH151	General Mathematics 1A	Autumn/ Summer	6
MGMT110	Introduction to Management and Employment Relations	Autumn/ Spring	6

Year 2

CSCI213	Java Programming and the Internet	Autumn/ Spring	6
ECTE233	Digital Hardware I	Autumn	6
ECTE282	Internet Systems	Autumn	6
ECTE283	Internet Technology 2	Spring	6
INFO202	Project	Annual	6
Plus three Year 2 Electives			18

Year 2 Electives

CSCI204	The C Family and Unix	Autumn/ Spring	6
CSCI214	Distributed Systems	Spring	6
CSCI235	Databases	Spring	6
DESN211	Introduction to Web Design	Autumn	6
DESN212	Advanced Web Design	Spring	6
DESN290	Introduction to Graphic Design	Spring	6
IACT201	Information Technology and Citizens' Rights	Autumn	6
IACT202	The Structure and Organisation of Telecommunications	Spring	6
MATH141	Mathematics 1C Part 1	Autumn	6
MATH161	Mathematics 1E Part 1	Spring	6
MATH187	Mathematics 1A Part 1	Autumn	6

Year 3

ECTE333	Digital Hardware 2	Spring	6
ECTE364	Telecommunication Networks 1	Autumn	6
ECTE392	Wireless Internet	Autumn	6
IACT303	World Wide Networking	Spring	6
Students must choose one of the following subjects:			
CSCI399	Server Technology	Autumn	6
ECTE281	Embedded Internet Systems	Spring	6
Plus three Year 3 Elective subjects, or a combination of INFO303, ECTE391 and/or Year 3 elective subjects to equal 18 credit points.			

Students with a WAM of 70 + at 200 level are strongly recommended to take:

INFO303	Advanced Project	Annual	12
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Students with a WAM of 70 + at 200 level may choose to take:

ECTE391	Internet Technology Project	N/A in 2004	6
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Year 3 Electives

CSCI311	Software Process Management	Autumn	6
CSCI315	Database Design and Implementation	Autumn	6
CSCI324	Human Computer Interface	Spring	6
CSCI361	Computer Security	Autumn	6
CSCI446	Multimedia Studies	Autumn	6
DESN311	Interactive Multimedia Design	Autumn	6
ECTE301	Digital Signal Processing 1	Spring	6
ECTE363	Communication Theory	Autumn	6
IACT302	Corporate Network Planning	Autumn	6
IACT406	Strategic eBusiness Solutions	Spring	6
ITCS432	Web Design	Spring	6

Note that because of pre-requisites, some third year electives are dependent on the choice of electives at second year.

Internet Applications (code ISO2)**Major Study**

To satisfy the requirements for a major study in Internet Applications, a student shall satisfactorily complete the following approved program:

Subjects	Session	Credit Points	
Year 1			
CSCI102	Systems	Spring	6
CSCI103	Algorithms and Problem Solving	Autumn	6

Course Information

CSCI114	Procedural Programming	Autumn	6
CSCI124	Object Programming	Spring	6
ECTE195	Design and Management	Autumn	6
ECTE182	Internet Technology 1	Spring	6
STAT131	Understanding Variation and Uncertainty	Autumn/ Spring	6
Plus one Year 1 Elective subject			6

Year 1 Electives

ACCY100	Accounting 1A	Autumn	6
ACCY102	Accounting 1B	Spring	6
ECON101	Macroeconomic Essentials for Business	Autumn/ Spring	6
ECON111	Introductory Micro-Economics	Autumn/ Spring	6
ECTE181	WWW Engineering	Autumn	6
LAW100	Law in Society	Autumn	6
MARK101	Marketing Principles	Autumn/ Spring	6
MATH121	Discrete Mathematics	Autumn	6
MATH151	General Mathematics 1A	Autumn/ Summer	6
MGMT110	Introduction to Management and Employment Relations	Autumn/ Spring	6

Year 2

CSCI213	Java Programming and the Internet	Autumn/ Spring	6
ECTE282	Internet Systems	Autumn	6
IACT201	Information Technology and Citizens' Rights	Autumn	6
INFO202	Project	Annual	6
Plus four Year 2 Elective subjects			24

Year 2 Electives

CSCI204	The C Family and Unix	Autumn/ Spring	6
CSCI205	Development Methods and Tools	Spring	6
CSCI214	Distributed Systems	Spring	6
CSCI235	Databases	Spring	6
DESN211	Introduction to Web Design	Autumn	6
DESN212	Advanced Web Design	Spring	6
DESN290	Introduction to Graphic Design	Spring	6
ECTE202	Circuits and Systems	Annual	6
ECTE212	Electronics and Communications	Spring	6
ECTE233	Digital Hardware 1	Autumn	6
ECTE281	Embedded Internet Systems	Spring	6
ECTE283	Internet Technology 2	Spring	6
IACT202	The Structure and Organisation of Telecommunications	Spring	6

Note that the availability of electives in Year 3 depends on the choices made in Year 2. To have maximum flexibility it is recommended that students choose CSCI204.

Year 3

IACT303	World Wide Networking	Spring	6
Plus seven Year 3 Elective subjects, or five Year 3 Elective subjects if students complete INFO303.			
Students with a WAM of 70+ at 200 level are strongly recommended to take:			
INFO303	Advanced Project	Annual	12

Year 3 Electives

CSCI212	Interacting Systems	Autumn	6
CSCI311	Software Process Management	Autumn	6
CSCI315	Database Design and Implementation	Autumn	6
CSCI322	Systems Administration	Spring	6
CSCI324	Human Computer Interface	Spring	6
CSCI336	Computer Graphics	Autumn	6
CSCI399	Server Technology	Autumn	6
CSCI407	Corba & Enterprise Java	Spring	6
CSCI408	Distributed Java	N/A in 2004	6
CSCI446	Multimedia Studies	Autumn	6
DESN311	Interactive Multimedia Design	Autumn	6
ECTE333	Digital Hardware 2	Spring	6
ECTE364	Telecommunications Networks 1	Autumn	6
ECTE392	Wireless Internet	Autumn	6
IACT301	Information and Communication Security Issues	Spring	6
IACT302	Corporate Network Planning	Autumn	6
IACT304	eBusiness Fundamentals	Autumn	6
IACT305	eBusiness Technologies	Autumn	6
IACT406	Strategic eBusiness Solutions	Spring	6
ITCS432	Web Design	Spring	6
ITCS450	Patterns for eBusiness	Autumn	6
ITCS451	Web Services for Dynamic eBusiness	Spring	6

Internet Commerce (code IS03)

Students enrolling in this major may need to make a choice about 3rd year electives during the first year. If they wish to study 300 level Accounting or Finance subjects, then they must study both ACCY100 and ACCY102 in the first year and FIN221 and/or ACCY231 in the second year.

In the standard program (see below) this would be possible only for students who might be willing to study in summer session or undertake more than 4 subjects per session. Accordingly a modified program is also presented. This has the disadvantage of restricting some of the choices of CSCI subjects at 300 level.

A recommended program of study for students studying at Batemans Bay, Bega, Shoalhaven and Moss Vale is also provided.

Major Study

To satisfy the requirements for a major study in Internet Commerce, a student shall satisfactorily complete one of the following recommended programs:

Standard Program

Subjects	Session	Credit Points
Year 1		
CSCI102 Systems	Spring	6
CSCI103 Algorithms and Problem Solving	Autumn	6
CSCI114 Procedural Programming	Autumn	6
CSCI124 Object Programming	Spring	6
ECTE195 Design and Management	Autumn	6
ECTE182 Internet Technology 1	Spring	6
STAT131 Understanding Variation and Uncertainty	Autumn/ Spring	6
Plus one Year 1 Elective subject		6
Year 1 Electives		
ACCY100 Accounting 1A	Autumn	6
ACCY102 Accounting 1B	Spring	6
ECON101 Macroeconomic Essentials for Business	Autumn/ Spring	6
ECON111 Introductory Micro-Economics	Autumn/ Spring	6
ECTE181 WWW Engineering	Autumn	6
LAW100 Law in Society	Autumn	6
MARK101 Marketing Principles	Autumn/ Spring	6
MATH121 Discrete Mathematics	Autumn	6
MATH151 General Mathematics 1A	Autumn/ Summer	6
MGMT110 Introduction to Management and Employment Relations	Autumn/ Spring	6
Year 2		
CSCI213 Java Programming and the Internet	Autumn/ Spring	6
ECTE282 Internet Systems	Autumn	6
IACT201 Information Technology and Citizens' Rights	Autumn	6
INFO202 Project	Annual	6
Plus four Year 2 Elective subjects		24
Year 2 Electives		
ACCY231 Information Systems in Accounting	Spring	6
BUSS211 Requirements Determination and Systems Analysis	Autumn	6
BUSS212 Database Management Systems	Spring	6
BUSS213 Multimedia in Organisations	Spring	6
CSCI204 The C Family and Unix	Autumn/ Spring	6
CSCI205 Development Methods and Tools	Spring	6
CSCI214 Distributed Systems	Spring	6
CSCI235 Databases	Spring	6
DESN211 Introduction to Web Design	Autumn	6
DESN212 Advanced Web Design	Spring	6
DESN290 Introduction to Graphic Design	Spring	6
ECTE281 Embedded Internet Systems	Spring	6
FIN221 Business Finance 1	Autumn/ Summer	6
IACT202 The Structure and Organisation of Telecommunications	Spring	6
LAW210 Contract Law	Spring	6
MGMT200 Management and Electronic Business	Spring	6
Year 3		
IACT303 World Wide Networking	Spring	6
Plus at least one of:		
CSCI446 Multimedia Studies	Autumn	6
IACT301 Information and Communication Security Issues	Spring	6
IACT302 Corporate Network Planning	Spring	6
IACT406 Strategic eBusiness Solutions	Spring	6
Plus six Year 3 Elective subjects, or five Year 3 Elective subjects if students complete INFO303.		
INFO303 Advanced Project	Annual	12

Course Information

Year 3 Electives

ACCY332	Advanced Information Systems in Accounting	Autumn	6
ACCY335	System Analysis and Design in Accounting and Finance	Spring	6
FIN353	Global Electronic Finance	Autumn	6
BUSS308	Computer Systems Management	Spring	6
BUSS312	Distributed Information Systems	Autumn	6
CSCI311	Software Process Management	Autumn	6
CSCI315	Database Design and Implementation	Autumn	6
CSCI324	Human Computer Interface	Spring	6
CSCI336	Computer Graphics	Autumn	6
CSCI399	Server Technology	Autumn	6
CSCI407	Corba & Enterprise Java	Spring	6
CSCI408	Distributed Java	N/A in 2004	6
CSCI446	Multimedia Studies	Autumn	6
DESN311	Interactive Multimedia Design	Autumn	6
ECON319	Electronic Commerce and the Economics of Information	Spring	6
ECTE392	Wireless Internet	Autumn	6
IACT301	Information and Communication Security Issues	Spring	6
IACT302	Corporate Network Planning	Autumn	6
IACT304	eBusiness Fundamentals	Autumn	6
IACT305	eBusiness Technologies	Autumn	6
IACT406	Strategic eBusiness Solutions	Spring	6
ITCS432	Web Design	Spring	6
ITCS450	Patterns for eBusiness	Autumn	6
ITCS451	Web Services for Dynamic eBusiness	Spring	6
LAW331	Intellectual Property Law	N/A in 2004	6
MARK301	Marketing on the Internet	Spring	6
MGMT300	Innovation and Electronic Commerce	Spring	6

Modified Program

The following modified program is designed to allow easy access to 300 level Accounting or Finance subjects.

Subjects **Session** **Credit Points**

Year 1

ACCY100	Accounting 1A	Autumn	6
ACCY102	Accounting 1B	Spring	6
CSCI102	Systems	Spring	6
CSCI103	Algorithms and Problem Solving	Autumn/ Spring	6
ECTE195	Design and Management	Autumn	6
ECTE182	Internet Technology 1	Spring	6
STAT131	Understanding Variation and Uncertainty	Autumn/ Spring	6
Plus one Year 1 Elective subject			6

Year 1 Electives

ECON101	Macroeconomic Essentials for Business	Autumn/ Spring	6
ECON111	Introductory Micro-Economics	Autumn/ Spring	6
ECTE181	WWW Engineering	Autumn	6
LAW100	Law in Society	Autumn	6
MARK101	Marketing Principles	Autumn/ Spring	6
MATH121	Discrete Mathematics	Autumn	6
MATH151	General Mathematics 1A	Autumn/ Summer	6
MGMT110	Introduction to Management and Employment Relations	Autumn/ Spring	6

Year 2

CSCI114	Procedural Programming	Autumn	6
CSCI124	Object Programming	Spring	6
ECTE282	Internet Systems	Autumn	6
IACT201	Information Technology and Citizens' Rights	Autumn	6
IACT303	World Wide Networking	Spring	6

Plus three Year 2 Elective subjects 18

Year 2 Electives

FIN221	Business Finance 1	Autumn/ Summer	6
ACCY231	Information Systems in Accounting	Spring	6
BUSS211	Requirements Determination and Systems Analysis	Autumn	6
BUSS212	Database Management Systems	Spring	6
BUSS213	Multimedia in Organisations	Spring	6
DESN211	Introduction to Web Design	Autumn	6
DESN212	Advanced Web Design	Spring	6

DESN290	Introduction to Graphic Design	Spring	6
ECTE281	Embedded Internet Systems	Spring	6
IACT202	The Structure and Organisation of Telecommunications	Spring	6
LAW210	Contract Law	Spring	6
MGMT200	Management and Electronic Business	Spring	6

Note that students must choose one or both FIN221 and ACCY231 in order to study ACCY or FIN subjects at 300 level.

Year 3

CSCI213	Java Programming and the Internet	Autumn/ Spring	6
INFO202	Project	Annual	6

Plus at least one of:

CSCI446	Multimedia Studies	Autumn	6
IACT301	Information and Communication Security Issues	Spring	6
IACT302	Corporate Network Planning	Autumn	6
IACT406	Strategic eBusiness Solutions	Spring	6

Plus five Year 3 Elective subjects, or three Year 3 Elective subjects if students complete INFO303.

Students with a WAM of 70+ at 200 level are strongly recommended to take:

INFO303	Advanced Project	Annual	12
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Year 3 Electives

ACCY332	Advanced Information Systems in Accounting	Autumn	6
ACCY335	System Analysis and Design in Accounting and Finance	Spring	6
FIN353	Global Electronic Finance	Autumn	6
BUSS308	Computer Systems Management	Spring	6
BUSS312	Distributed information Systems	Autumn	6
CSCI204	The C Family and Unix	Autumn/ Spring	6
CSCI205	Development Methods and Tools	Spring	6
CSCI214	Distributed Systems	Spring	6
CSCI235	Databases	Spring	6
CSCI311	Software Process Management	Autumn	6
CSCI315	Database Design and Implementation	Autumn	6
CSCI324	Human Computer Interface	Spring	6
CSCI336	Computer Graphics	Autumn	6
CSCI399	Server Technology	Autumn	6
CSCI407	Corba & Enterprise Java	Spring	6
CSCI408	Distributed Java	N/A in 2004	6
CSCI446	Multimedia Studies	Autumn	6
DESN311	Interactive Multimedia Design	Autumn	6
ECON319	Electronic Commerce and the Economics of Information	Spring	6
IACT301	Information and Communication Security Issues	Spring	6
IACT302	Corporate Network Planning	Autumn	6
IACT304	eBusiness Fundamentals	Autumn	6
IACT305	eBusiness Technologies	Autumn	6
IACT406	Strategic eBusiness Solutions	Spring	6
ITCS432	Web Design	Spring	6
ITCS450	Patterns for eBusiness	Autumn	6
ITCS451	Web Services for Dynamic eBusiness	Spring	6
LAW331	Intellectual Property Law	N/A in 2004	6
MARK301	Marketing on the Internet	Spring	6
MGMT300	Innovation and Electronic Commerce	Spring	6

*Program for students studying at Batemans Bay, Bega, Shoalhaven or Moss Vale***

Subjects **Session** **Credit Points**

Year 1

MGMT110	Introduction to Management and Employment Relations	Autumn	6
CSCI103	Algorithms and Problem Solving	Autumn	6
CSCI114	Procedural Programming	Autumn	6
CSCI102	Systems	Spring	6
CSCI121	Computer Science 1B	Spring	6
ECTE182	Internet Technology 1	Spring	6

Plus one or two Elective subjects at 100-level, depending upon sequence of electives chosen. 6 or 12

Year 2

CSCI213	Java Programming and the Internet	Autumn	6
ECTE282	Internet Systems	Autumn	6
IACT201	Information Technology and Citizens' Rights	Autumn	6
INFO202	Project	Annual	6
ECON121	Quantitative Methods	Spring	6
IACT202	The Structure and Organisation of Telecommunications	Spring	6
ECTE281	Embedded Internet Systems	Spring	6

Plus one or two Elective subject at 200-level, depending upon sequence of electives chosen 6 or 12

Course Information

Year 3*

IACT302	Corporate Network Planning	Autumn	6
BUSS211	Requirements Determinants and Systems Analysis	Autumn	6
BUSS308	Computer Systems Management	Spring	6
IACT301	Information and Communication Security Issues	Spring	6
IACT303	World Wide Networking	Spring	6
Plus one Elective subject at 200/300-level			6
Plus two Elective subjects at 300-level			12

* subject to approval. Further information available during 2004.

Electives

Students should consult staff at the relevant Campus/Centre regarding which elective subjects are available.

** Students must seek academic advice regarding an appropriate sequence of elective subjects and have a program of study approved.

Internet Science (code IS04)

Major Study

To satisfy the requirements for a major study in Internet Science, a student shall satisfactorily complete the following recommended program:

Subjects	Session	Credit Points	
Year 1			
CSCI102	Systems	Spring	6
CSCI103	Algorithms and Problem Solving	Autumn	6
CSCI114	Procedural Programming	Autumn	6
CSCI124	Object Programming	Spring	6
ECTE195	Design and Management	Autumn	6
ECTE182	Internet Technology 1	Spring	6
MATH187	Mathematics 1A Part 1	Autumn	6
MATH188	Mathematics 1A Part 2	Spring	6
Year 2			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
ECTE282	Internet Systems	Autumn	6
IACT201	Information Technology and Citizens' Rights	Autumn	6
INFO202	Project	Annual	6
STAT231	Probability and Random Variables	Autumn	6
Plus three Year 2 Elective subjects			18
Year 2 Electives			
CSCI204	The C Family and Unix	Autumn/ Spring	6
CSCI205	Development Methods and Tools	Spring	6
CSCI214	Distributed Systems	Spring	6
CSCI235	Databases	Spring	6
DESN211	Introduction to Web Design	Autumn	6
DESN212	Advanced Web Design	Spring	6
DESN290	Introduction to Graphic Design	Spring	6
ECTE281	Embedded Internet Systems	Spring	6
IACT202	The Structure and Organisation of Telecommunications	Spring	6
MATH121	Discrete Mathematics	Autumn	6
MATH201	Multivariate and Vector Calculus	Autumn	6
MATH204	Complex Variables and Group Theory	Spring	6
MATH222	Continuous and Finite Mathematics	Autumn	6
STAT131	Understanding Variation and Uncertainty	Autumn/ Spring	6
STAT232	Estimation and Hypothesis Testing	Spring	6
STAT252	Statistics for the Natural Sciences	Spring	6
Note: STAT131 is not to count with STAT252			
Year 3			
IACT303	World Wide Networking	Spring	6
INFO413	Information Theory	Spring	6
Plus six Year 3 Elective subjects, or four Year 3 Elective subjects if students complete INFO303.			
Students with a WAM of 70+ at 200 level are strongly recommended to take:			
INFO303	Advanced Project	Annual	12

Year 3 Electives

CSCI311	Software Process Management	Autumn	6
CSCI315	Database Design and Implementation	Autumn	6
CSCI324	Human Computer Interface	Spring	6
CSCI336	Computer Graphics	Autumn	6
CSCI399	Server Technology	Autumn	6
CSCI407	Corba & Enterprise Java	Spring	6
CSCI408	Distributed Java	N/A in 2004	6
CSCI446	Multimedia Studies	Autumn	6
DESN311	Interactive Multimedia Design	Autumn	6
ECTE363	Communication Theory	Autumn	6
IACT301	Information and Communication Security Issues	Spring	6
IACT302	Corporate Network Planning	Autumn	6
IACT304	eBusiness Fundamentals	Autumn	6
IACT305	eBusiness Technologies	Autumn	6
IACT406	Strategic eBusiness Solutions	Spring	6
INFO412	Mathematics for Cryptography	Autumn	6
ITCS432	Web Design	Spring	6
ITCS450	Patterns for eBusiness	Autumn	6
ITCS451	Web Services for Dynamic eBusiness	Spring	6
MATH203	Linear Algebra	Autumn	6
MATH372	Special Topics in Mathematical Analysis 3	Autumn	6

Professional Recognition

The Bachelor of Internet Science and Technology has recently been revised, therefore re-accreditation by the Australian Computer Society as meeting requirements for membership at a "Professional level" is currently being sought.

Bachelor of Mathematics

Testamur Title of Degree:	Bachelor of Mathematics
Abbreviation:	BMath
Home Faculty:	Informatics
Duration:	3 years or part-time equivalent
Total Credit Points:	144
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Standard Course Fee:	HECS (local); International \$7,700 per session
Location:	Wollongong
UOW Course Code:	762
UAC Code:	756511
CRICOS Code:	002936B

Overview

This degree is designed to give the graduate a solid foundation in all the skills needed to work as a professional mathematician or statistician. It is flexible enough to allow students to specialise in an area that is of particular interest, or to gain an introduction to a wide variety of topics. One third of the subjects taken may be from other disciplines, such as computer science, management, finance or science.

Entry Requirements / Assumed Knowledge

Approximate UAI: 75

Assumed knowledge: Any two units of English plus HSC Mathematics.

Recommended studies: HSC Mathematics Extension 1.

For entry requirements for students 21 & over or international students, please refer to the relevant prospectus.

Course Requirements

The following requirements for the Bachelor of Mathematics degree are to be read in conjunction with University Course Rule 108.

To qualify for the award of the degree of Bachelor of Mathematics, candidates must satisfactorily complete at least 144 credit points from either or both the subjects prescribed for the Bachelor of Mathematics and the General Schedule, including:

- 1) MATH187 Mathematics 1A Part 1 and MATH188 Mathematics 1A Part 2

Course Information

- 2) MATH111 Applied Mathematical Modelling 1 or MATH212 Applied Mathematical Modelling 2
- 3) MATH121 Discrete Mathematics or MATH222 Continuous and Finite Mathematics
- 4) STAT131 Understanding Variation and Uncertainty or STAT231 Probability and Random Variables
- 5) CSC1114 Procedural Programming
- 6) each of the subjects:
 - MATH201 Multivariate and Vector Calculus
 - MATH202 Differential Equations 2
 - MATH203 Linear Algebra
 - MATH204 Complex Variables and Group Theory
- 7) at least one of the subjects:
 - MATH212 Applied Mathematical Modelling 2
 - MATH222 Continuous and Finite Mathematics
 - STAT231 Probability and Random Variables (not additional to 2 or 3 or 4)
- 8) 300-level subjects from the Mathematics Schedule of subjects with a value of at least:
 - a) 36 credit points, or
 - b) 24 credit points, should a major study in Computer Science also be satisfactorily completed, or
 - c) 30 credit points, should any other major study also be satisfactorily completed
- 9) within requirements 1. to 8., a major study in either Mathematics or Applied Statistics, and
- 10) no more than 60 credit points at the 100-level.

Areas of Major Study

Within the Bachelor of Mathematics, a major study in either Mathematics or Applied Statistics can be combined with a major study in the following disciplines:

Computer Science
Economics
Econometrics
Accountancy
Business Information Systems
Management
Marketing
Finance
Biomedical Sciences

Candidates wishing to major in Mathematics and/or Applied Statistics and a discipline not listed above are advised to first consult with the Sub-Dean of the Faculty of Informatics for verification of their intended program.

Candidates may also study a major in the following areas of science, but this will necessitate completing more than the standard 144 credit points in the degree:

Biological Sciences
Chemistry
Geology
Human Geography
Physical Geography
Geoscience
Physics

Mathematics Schedule of Subjects

The following subjects are approved for inclusion in the Bachelor of Mathematics degree.

Subjects	Session	Credit Points
100-Level		
MATH187 Mathematics 1A Part 1	Autumn	6
MATH188 Mathematics 1A Part 2	Spring	6

MATH111	Applied Mathematical Modelling 1	Spring	6
MATH121	Discrete Mathematics	Autumn	6
CSCI114	Procedural Programming	Autumn/ Spring	6
STAT131	Understanding Variation and Uncertainty	Autumn/ Spring	6

200-Level

MATH201	Multivariate and Vector Calculus	Autumn	6
MATH202	Differential Equations 2	Spring	6
MATH203	Linear Algebra	Autumn	6
MATH204	Complex Variables and Group Theory	Spring	6
MATH212	Applied Mathematical Modelling 2	Spring	6
MATH222	Continuous and Finite Mathematics	Autumn	6
STAT231	Probability and Random Variables	Autumn	6
STAT232	Estimation and Hypothesis Testing	Spring	6

300-Level

MATH302	Differential Equations 3	Spring	6
MATH305	Partial Differential Equations	Autumn	6
MATH312	Applied Mathematical Modelling 3	Autumn	6
MATH313	Industrial Mathematical Modelling	Spring	6
MATH316	Applied Dynamics	N/A in 2004	6
MATH317	Financial Calculus and Logistics	Autumn	6
MATH321	Numerical Analysis	Spring	6
MATH322	Algebra	Autumn	6
MATH323	Topology and Chaos	Spring	6
MATH325	Wavelets	N/A in 2004	6
MATH371	Special Topics in Industrial and Applied Mathematics 3	Autumn/ Spring	6
MATH372	Special Topics in Mathematical Analysis 3	Autumn	6
STAT304	Operations Research and Applied Probability	Spring	6
STAT332	Multiple Regression and Time Series	Spring	6
STAT333	Statistical Inference and Multivariate Analysis	Autumn	6
STAT335	Sample Surveys and Experimental Design	Autumn	6
STAT373	Special Topics in Probability and Statistics 3	Autumn/ Spring	6

400-Level

INFO411	Data Mining and Knowledge Discovery	Spring	6
INFO412	Mathematics for Cryptography	Autumn	6
INFO413	Information Theory	Spring	6

Honours

A fourth year of study, Honours, is available to students who have achieved a Credit average or better in the BMath. It is a more challenging program that includes a research project. Students who wish to enter the Honours program should obtain the approval of the Honours Coordinator at the end of their third year.

Major Study Areas**Mathematics (code MATH)****Major Study**

To satisfy the requirements for a major study in Mathematics, a student shall satisfactorily complete (at a grade of Pass or better) any MATH or STAT subjects listed in the Mathematics Schedule, to a total of at least 48 credit points; of which at least 18 credit points must be at 200 level and at least 24 credit points must be at 300 level.

The following suggested programs are intended as a guideline only in selecting suitable supplementary subjects to make a reasonable pattern for Mathematics degrees in the various fields of Mathematics.

All candidates are expected to consult with the School and Faculty advisers before committing themselves completely to any particular pattern, whether outlined below or not.

Double Major

A major in Mathematics can be combined with Applied Statistics, Computer Science, Economics, Econometrics, Accountancy, Business Information Systems, Management, Marketing, Finance or Biomedical Sciences. Second major requirements are listed below.

Suggested Program in Industrial and Applied Mathematics (Including Numerical Analysis)

Subjects	Session	Credit Points	
Year 1			
MATH187	Mathematics 1A Part 1	Autumn	6
MATH188	Mathematics 1A Part 2	Spring	6

Course Information

MATH111	Applied Mathematical Modelling 1	Spring	6
MATH121	Discrete Mathematics	Autumn	6
STAT131	Understanding Variation and Uncertainty	Autumn/ Spring	6
CSCI114	Procedural Programming	Autumn/ Spring	6
Plus			
PHYS141	Fundamentals of Physics A	Autumn	6
PHYS142	Fundamentals of Physics B	Spring	6
or			
Subjects chosen from the Mathematics or General Schedules			12

Year 2

MATH201	Multivariate and Vector Calculus	Autumn	6
MATH202	Differential Equations	Spring	6
MATH203	Linear Algebra	Autumn	6
MATH204	Complex Variables and Group Theory	Spring	6
MATH212	Applied Mathematical Modelling 2	Spring	6
Plus			
Subjects chosen from the Mathematics or General Schedules			18

Year 3

MATH302	Differential Equations 3	Spring	6
MATH305	Partial Differential Equations	Autumn	6
Plus at least two of the following subjects:			
MATH312	Applied Mathematical Modelling 3	Autumn	6
MATH313	Industrial Mathematical Modelling	Spring	6
MATH316	Applied Dynamics	N/A in 2004	6
MATH317	Financial Calculus and Logistics	Autumn	6
MATH321	Numerical Analysis	Spring	6
Plus			
Subjects chosen from the Mathematics Schedule			12
Plus			
Subjects chosen from the Mathematics or General Schedules			12

Suggested Program in Mathematical Analysis

Subjects	Session	Credit Points	
Year 1			
MATH187	Mathematics 1A Part 1	Autumn	6
MATH188	Mathematics 1A Part 2	Spring	6
MATH111	Applied Mathematical Modelling 1	Spring	6
MATH121	Discrete Mathematics	Autumn	6
STAT131	Understanding Variation and Uncertainty	Autumn/ Spring	6
CSCI114	Procedural Programming	Autumn/ Spring	6
Plus			
Subjects chosen from the Mathematics or General Schedules		12	
Year 2			
MATH201	Multivariate and Vector Calculus	Autumn	6
MATH202	Differential Equations	Spring	6
MATH203	Linear Algebra	Autumn	6
MATH204	Complex Variables and Group Theory	Spring	6
MATH222	Continuous and Finite Mathematics	Autumn	6
Plus			
Subjects chosen from the Mathematics or General Schedules		18	
Year 3			
MATH302	Differential Equations 3	Spring	6
Plus at least three of the following subjects:			
MATH321	Numerical Analysis	Spring	6
MATH322	Algebra	Autumn	6
MATH323	Topology and Chaos	Spring	6
Plus			
Subjects chosen from the Mathematics Schedule		12	
Plus			
Subjects chosen from the Mathematics or General Schedules		12	

Suggested Program for Mathematics Teaching

The minimum requirement for employment as a Mathematics teacher is 60 credit points of Mathematics, including a major study at 300-level, however candidates are encouraged to complete a full Mathematics degree.

Subjects	Session	Credit Points
Year 1		
MATH187 Mathematics 1A Part 1	Autumn	6
MATH188 Mathematics 1A Part 2	Spring	6
MATH111 Applied Mathematical Modelling 1	Spring	6
MATH121 Discrete Mathematics	Autumn	6
STAT131 Understanding Variation and Uncertainty	Autumn/ Spring	6
CSCI114 Procedural Programming	Autumn/ Spring	6
Plus		
Subjects chosen from the Mathematics or General Schedules		12
Year 2		
MATH201 Multivariate and Vector Calculus	Autumn	6
MATH202 Differential Equations	Spring	6
MATH203 Linear Algebra	Autumn	6
MATH204 Complex Variables and Group Theory	Spring	6
Plus		
200-level Mathematics subjects chosen from the Mathematics Schedule		12
Plus		
Subjects chosen from the Mathematics or General Schedules		12
Year 3		
300-level subjects chosen from the Mathematics Schedule		36
Plus		
Subjects chosen from the Mathematics or General Schedules		12

Applied Statistics (code STAT)

Major Study

To satisfy the requirements for a major study in Applied Statistics, a student shall satisfactorily complete (at a grade of Pass or better) any MATH or STAT subjects listed above, to a total of at least 48 credit points; of which at least 12 credit points must be at 200 level and must include STAT231 and STAT232; and at least 24 credit points must be of 300 level STAT subjects.

The following suggested program is intended as a guideline only in selecting suitable supplementary subjects to make a reasonable pattern for a major in Applied Statistics.

All candidates are expected to consult with the School and Faculty advisers before committing themselves completely to any particular pattern, whether outlined below or not.

Double Major

A major in Applied Statistics can be combined with Mathematics, Computer Science, Economics, Econometrics, Accountancy, Business Information Systems, Management, Marketing, Finance or Biomedical Sciences. Second major requirements are listed below.

Suggested Program in Applied Statistics

Subjects	Session	Credit Points
Year 1		
MATH187 Mathematics 1A Part 1	Autumn	6
MATH188 Mathematics 1A Part 2	Spring	6
MATH111 Applied Mathematical Modelling 1	Spring	6
MATH121 Discrete Mathematics	Autumn	6
STAT131 Understanding Variation and Uncertainty	Autumn/ Spring	6
CSCI114 Procedural Programming	Autumn/ Spring	6
Plus		
Subjects chosen from the Mathematics or General Schedules		12
Year 2		
MATH201 Multivariate and Vector Calculus	Autumn	6
MATH202 Differential Equations	Spring	6
MATH203 Linear Algebra	Autumn	6
MATH204 Complex Variables and Group Theory	Spring	6
STAT231 Probability and Random Variables	Autumn	6
STAT232 Estimation and Hypothesis Testing	Spring	6
Plus		
Subjects chosen from the Mathematics or General Schedules		12

Year 3

STAT304	Operations Research and Applied Probability	Spring	6
STAT332	Multiple Regression and Time Series	Spring	6
STAT333	Statistical Inference and Multivariate Analysis	Autumn	6
STAT335	Sample Surveys and Experimental Design	Autumn	6
Plus			
	Subjects chosen from the Mathematics Schedule		12
Plus			
	Subjects chosen from the Mathematics or General Schedules		12

Mathematics and Computer Science (code MA01)**Applied Statistics and Computer Science (code ST01)**

This double major requires satisfactory completion of a major study in Mathematics or Applied Statistics and satisfactory completion of the following approved 48 credit point major study in Computer Science:

Subjects	Session	Credit Points	
CSCI103	Algorithms & Problem Solving	Autumn/ Spring	6
CSCI114	Procedural Programming	Autumn/ Spring	6
CSCI124	Object Programming	Spring	6
CSCI204	The C Family and Unix	Autumn/ Spring	6
Plus	300-level CSCI subjects		24

To ensure a wider range of options at 300-level, students are advised to undertake at least one additional CSCI subject at 200-level.

Mathematics and Economics (code MA03)**Applied Statistics and Economics (code ST03)**

This double major requires satisfactory completion of a major study in Mathematics or Applied Statistics and satisfactory completion of a major study in Economics, as outlined in the Bachelor of Commerce entry. Note, however, that students are not required to complete the core subjects as listed in the Bachelor of Commerce except where those subjects are prerequisites to subjects in the Economics major. All students must satisfy subject prerequisites except where waivers have been granted.

Alternatively candidates may wish to consider enrolling in the Bachelor of Mathematics and Economics or the Bachelor of Mathematics and Finance.

Mathematics and Econometrics (code MA04)**Applied Statistics and Econometrics (code ST04)**

This double major requires satisfactory completion of a major study in Mathematics or Applied Statistics and satisfactory completion of the following approved 48 credit point major study in Econometrics.

Subjects	Session	Credit Points	
ECON221	Econometrics	Autumn	6
ECON231	Business Statistics and Forecasting	Autumn	6
ECON230	Quantitative Analysis for Decision Making	Spring	6
ECON322	Mathematical Economics	Spring	6
ECON327	Advanced Econometrics	Spring	6
Plus			
	200/300-level Economics subject		6
Plus			
	Two 300-level Economics subjects		12

Mathematics and Accountancy (code MA05)**Applied Statistics and Accountancy (code ST05)**

This double major requires satisfactory completion of a major study in Mathematics or Applied Statistics and satisfactory completion of a major study in Accountancy, as outlined in the Bachelor of Commerce entry. Note, however, that students are not required to complete the core subjects as listed in the Bachelor of Commerce except where those subjects are prerequisites to subjects in the Accountancy major. All students must satisfy subject prerequisites except where waivers have been granted.

Mathematics and Business Information Systems (code MA06)**Applied Statistics and Business Information Systems (code ST06)**

This double major requires satisfactory completion of a major study in Mathematics or Applied Statistics and satisfactory completion of a major study in Business Information Systems, as outlined in the Bachelor of Commerce entry. Note, however, that students are not required to complete the core subjects as listed in the Bachelor of Commerce except where those subjects are prerequisites to subjects in the Business Information Systems major. All students must satisfy subject prerequisites except where waivers have been granted.

Mathematics and Management (code MA12)**Applied Statistics and Management (code ST12)**

This double major requires satisfactory completion of a major study in Mathematics or Applied Statistics and satisfactory completion of a major study in Management, as outlined in the Bachelor of Commerce entry. Note, however, that students are not required to complete the core subjects as listed in the Bachelor of Commerce except where those subjects are prerequisites to subjects in the Management major. All students must satisfy subject prerequisites except where waivers have been granted.

Mathematics and Marketing (code MA13)**Applied Statistics and Marketing (code ST13)**

This double major requires satisfactory completion of a major study in Mathematics or Applied Statistics and satisfactory completion of a major study in Marketing, as outlined in the Bachelor of Commerce entry. Note, however, that students are not required to complete the core subjects as listed in the Bachelor of Commerce except where those subjects are prerequisites to subjects in the Marketing major. All students must satisfy subject prerequisites except where waivers have been granted.

Mathematics and Finance (code MA14)**Applied Statistics and Finance (code ST14)**

This double major requires satisfactory completion of a major study in Mathematics or Applied Statistics and satisfactory completion of a major study in Finance, as outlined in the Bachelor of Commerce entry. Note, however, that students are not required to complete the core subjects as listed in the Bachelor of Commerce except where those subjects are prerequisites to subjects in the Finance major. All students must satisfy subject prerequisites except where waivers have been granted.

Alternatively candidates may wish to consider enrolling in the Bachelor of Mathematics and Economics or the Bachelor of Mathematics and Finance.

Mathematics and Biomedical Sciences (code MA15)**Applied Statistics and Biomedical Sciences (code ST15)**

This double major requires satisfactory completion of a major study in Mathematics or Applied Statistics and satisfactory completion of the following approved 54-56 credit point major study in Biomedical Science.

Subjects	Session	Credit Points
BMS101 Systemic Anatomy	Autumn	6
BMS112 Human Physiology 1: Principles and Systems	Spring	6
BMS202 Human Physiology II: Control Mechanisms	Autumn	6
BMS242 Exercise Physiology	Spring	6
BMS342 Advanced Exercise Physiology	Autumn	8
BMS344 Cardiorespiratory Physiology	Autumn	8
and either BMS211 Foundations of Biomechanics	Autumn	6
or BMS352 Fundamentals of Neuroscience	Autumn	8
and either BMS341 Clinical Biomechanics	Spring	8
or BMS346 Motor Control and Dysfunction	Spring	8

Mathematics/Statistics and Various Sciences

Students should refer to an Academic Adviser in the school of Maths and Applied Statistics for assistance with choice of subjects.

code MA07	Mathematics and Biology
code MA08	Mathematics and Chemistry

Course Information

code MA02	Mathematics and Geography
code MA09	Mathematics and Geology
code MA10	Mathematics and Physics
code MA11	Mathematics and Ecology and Biogeography
code ST07	Applied Statistics and Biology
code ST08	Applied Statistics and Chemistry
code ST02	Applied Statistics and Geography
code ST09	Applied Statistics and Geology
code ST10	Applied Statistics and Physics
code ST11	Applied Statistics and Ecology and Biogeography

Bachelor of Mathematics (Advanced)

Testamur Title of Degree:	Bachelor of Mathematics (Advanced)
Abbreviation:	BMathAdv
Home Faculty:	Informatics
Duration:	3 years part-time equivalent
Total Credit Points:	144
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Standard Course Fee:	HECS (local); International \$7,700 per session
Location:	Wollongong
UOW Course Code:	762A
UAC Code:	756512
CRICOS Code:	036040F

Overview

This challenging Bachelor degree is available to students who have superior mathematical knowledge on entry, allowing the amount of first year mathematics subjects to be significantly reduced. This enables students to take enrichment projects, which provide opportunities to build links with industry and to understand the interaction between mathematics and society. Students will also have close interaction with active academic researchers.

Entry Requirements / Assumed Knowledge

Approximate UAI: 95

Assumed Knowledge: HSC Mathematics Extension 2

For entry requirements for students 21 & over or international students, please refer to the relevant prospectus.

Course Requirements

To qualify for the award of the degree of Bachelor of Mathematics (Advanced), candidates must satisfactorily complete at least 144 credit points from either or both the Mathematics and the General Schedule including:

- (i) MATH110
- (ii) CSCI114
- (iii) Each of the subjects MATH201, MATH202, MATH203 and MATH204
- (iv) Each of the subjects MATH212, MATH222 and STAT231
- (v) the subject MATH235 or STAT235
- (vi) the subject MATH345 or STAT345
- (vii) 300 level subjects from the Mathematics Schedule with a value of at least:
 - 36 credit points, or
 - 24 credit points, if there is a major study in Computer Science
 - 30 credit points, if there is any other major study
- (viii) a major study in Mathematics or Statistics (apart from MATH345 and STAT345)
- (ix) no more than 60 credit points at 100 level.

- (x) continuation in the Bachelor of Mathematics (Advanced) (code 762A) will normally be dependent upon achieving an average of at least 75% each year. Students who do not meet the required average will be transferred to the Bachelor of Mathematics degree (code 762).

Note that a student could do some 300 level subjects in second year.

Course Program

Recommended Program in Mathematics, Statistics plus another discipline

The following is a possible enrolment program for someone doing a "major" in a discipline other than Mathematics, Statistics or Computer Science. [NOTE that a program like this does not mean that the formal requirements for a major in the other discipline will be satisfied. Candidates are advised to check the requirements for a major in other disciplines listed under the Bachelor of Mathematics degree regulations.] Considerable variation is possible.

Subjects		Session	Credit Points
Year 1			
MATH110	Advanced Mathematics 1	Autumn	6
MATH201	Multivariate and Vector Calculus	Autumn	6
MATH203	Linear Algebra	Autumn	6
MATH202	Differential Equations 2	Spring	6
CSCI114	Procedural Programming	Autumn/ Spring	6
Plus	Other subjects		18
Year 2			
MATH235/ STAT235	Project A	Autumn/ Spring	6
STAT231	Probability and Random Variables	Autumn	6
MATH204	Complex Variables and Group Theory	Spring	6
MATH212	Applied Mathematical Modelling 2	Spring	6
MATH222	Continuous and Finite Mathematics	Autumn	6
Plus	Other subjects		18
Year 3			
MATH345/ STAT345	Project B	Autumn/ Spring	6
Plus	MATH/STAT 300 level subjects		24
Plus	Other Major subjects		18

Recommended Program in Industrial and Applied Mathematics

Subjects		Session	Credit Points
Year 1			
MATH110	Advanced Mathematics 1	Autumn	6
MATH201	Multivariate and Vector Calculus	Autumn	6
MATH203	Linear Algebra	Autumn	6
MATH202	Differential Equations 2	Spring	6
CSCI114	Procedural Programming	Autumn/ Spring	6
Plus	Other subjects		18
Year 2			
MATH235	Project A	Autumn/ Spring	6
STAT231	Probability and Random Variables	Autumn	6
MATH204	Complex Variables and Group Theory	Spring	6
MATH212	Applied Mathematical Modelling 2	Spring	6
MATH222	Continuous and Finite Mathematics	Autumn	6
Plus	Other subjects		18
Year 3			
MATH302	Differential Equations 3	Spring	6
MATH305	Partial Differential Equations	Autumn	6
MATH345	Project B	Autumn/ Spring	6
Plus at least two subjects chosen from:			
MATH312	Applied Mathematical Modelling 3	Autumn	6
MATH313	Industrial Mathematical Modelling	Spring	6
MATH317	Financial Calculus and Logistics	Autumn	6
MATH321	Numerical Analysis	Spring	6
Plus one 300-level subject chosen from the Mathematics Schedule			
Plus	Other subjects		12

Recommended Program in Mathematical Analysis

Subjects	Session	Credit Points	
Year 1			
MATH110	Advanced Mathematics 1	Autumn	6
MATH201	Multivariate and Vector Calculus	Autumn	6
MATH203	Linear Algebra	Autumn	6
MATH202	Differential Equations 2	Spring	6
CSCI114	Procedural Programming	Autumn/ Spring	6
Plus	Other subjects		18
Year 2			
STAT231	Probability and Random Variables	Autumn	6
MATH204	Complex Variables and Group Theory	Spring	6
MATH212	Applied Mathematical Modelling 2	Spring	6
MATH222	Continuous and Finite Mathematics	Autumn	6
MATH235	Project A	Autumn/ Spring	6
Plus	Other subjects		18
Year 3			
MATH302	Differential Equations 3	Spring	6
MATH345	Mathematics Project B	Autumn/ Spring	6
Plus at least three subjects chosen from:			
MATH321	Numerical Analysis	Spring	6
MATH322	Algebra	Autumn	6
MATH323	Topology and Chaos	Spring	6
Plus one 300-level subject chosen from the Mathematics Schedule			6
Plus	Other subjects		12

Recommended Program in Applied Statistics

Subjects	Session	Credit Points	
Year 1			
MATH110	Advanced Mathematics 1	Autumn	6
MATH201	Multivariate and Vector Calculus	Autumn	6
MATH203	Linear Algebra	Autumn	6
MATH202	Differential Equations 2	Spring	6
CSCI114	Procedural Programming	Autumn/ Spring	6
Plus	Other subjects		18
Year 2			
STAT231	Probability and Random Variables	Autumn	6
STAT232	Estimation and Hypothesis Testing	Spring	6
STAT235	Statistics Project A	Autumn/ Spring	6
MATH204	Complex Variables and Group Theory	Spring	6
MATH212	Applied Mathematical Modelling 2	Spring	6
MATH222	Continuous and Finite Mathematics	Autumn	6
Plus	Other subjects		12
Year 3			
STAT304	Operations Research and Applied Probability	Spring	6
STAT332	Multiple Regression and Time Series	Spring	6
STAT333	Statistical Inference and Multivariate Analysis	Autumn	6
STAT335	Sample Surveys and Experimental Design	Autumn	6
STAT345	Statistics Project B	Autumn/ Spring	6
Plus one 300-level subject chosen from the Mathematics Schedule			6
Plus	Other subjects		12

Honours

A fourth year of study, Honours, is available to students who have achieved a Distinction average or better in the BMath(Adv). It is a challenging program, that includes a research project. Students who wish to enter the Honours program should obtain the approval of the Honours Coordinator at the end of their third year.

Bachelor of Mathematics and Economics

Testamur Title of Degree:	Bachelor of Mathematics and Economics
Abbreviation:	BMathEcon
Home Faculty:	Informatics
Duration:	4 years or part-time equivalent
Total Credit Points:	192
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Standard Course Fee:	HECS (local); International \$7,700 per session
Location:	Wollongong
UOW Course Code:	767A
UAC Code:	756502
CRICOS Code:	017733A

Overview

The Bachelor of Mathematics and Economics is an elite course that provides high-level training in both disciplines, and equips graduates for careers in a wide variety of fields. It is also a significant advantage for graduates who wish to pursue higher degrees or research in economics to have a strong background in mathematics.

Entry Requirements / Assumed Knowledge

Approximate UAI: 82

Assumed knowledge: Any two units of English plus HSC Mathematics

Recommended study: HSC Mathematics Extension 1

For entry requirements for students 21 & over or international students, please refer to the relevant prospectus.

Course Requirements

To qualify for the award of the degree of Bachelor of Mathematics and Economics a candidate shall satisfactorily complete at least 192 credit points of prescribed subjects, together with the requirements prescribed for this program.

The following program of study is recommended to satisfy the requirements in minimum time. The subjects listed are compulsory.

Course Program

Subjects	Session	Credit Points
Year 1		
ACCY100 Accounting 1A	Autumn	6
ECON101 Macroeconomic Essentials for Business	Autumn	6
MATH187 Mathematics 1A Part 1	Autumn	6
STAT131 Understanding Variation and Uncertainty	Autumn	6
ECON111 Introductory Microeconomics	Spring	6
MATH111 Applied Mathematical Modelling 1	Spring	6
MATH188 Mathematics 1A Part 2	Spring	6
Plus either		6
BUSS111 Business Programming I	Spring	6
or		
CSCI114 Procedural Programming	Spring	6
Year 2		
ECON205 Macroeconomic Theory and Policy	Autumn/ Spring	6
ECON215 Microeconomic Theory and Policy	Autumn/ Spring	6
MATH201 Multivariate and Vector Calculus	Autumn	6
MATH202 Differential Equations 2	Spring	6
MATH203 Linear Algebra	Autumn	6
Plus		
200-level MATH/STAT subjects from List of Electives		12
Plus		
ACCY/ECON subject from List of Electives		6
Note: Students interested in Statistics are recommended to take STAT231, STAT232 and STAT332.		
Year 3		
ECON221 Econometrics	Autumn	6
ECON322 Mathematical Economics	Spring	6
MATH302 Differential Equations 3	Spring	6

Course Information

MATH317	Financial Calculus and Logistics	Autumn	6
Plus either			
300 level ECON subject from List of Electives			6
or			
STAT232	Estimation & Hypothesis Testing	Spring	6
Plus			
300-level MATH/STAT subject from List of Electives			6
Plus			
ACCY/BUSS/ECON subject from List of Electives			6
Plus			
Any 200/300-level subject from List of Electives			6

Year 4 (Non Honours)

ECON327	Advanced Econometrics	Spring	6
MGMT308	Introduction to Management for Professionals A	Autumn	6
Plus either			
300-level ECON subjects from List of Electives			12
or			
300-level ECON subject from List of Electives			6
and			
STAT232	Estimation & Hypothesis Testing	Spring	6
Plus			
300/400-level INFO/MATH/STAT subjects from List of Electives			24

Year 4 (Honours)

Entry to this program is restricted to candidates who satisfy the pre-requisite to INFO402

ECON327	Advanced Econometrics	Spring	6
MATH471	Honours Topics in Mathematics A (see Note 1)	Autumn/ Spring	6
MATH472	Honours Topics in Mathematics B (see Note 1)	Autumn/ Spring	6
INFO402	Mathematics and Economics Honours Project (see Note 2)	Autumn/ Spring	12
MGMT308	Introduction to Management for Professionals A	Autumn	6
Plus			
300 - level ECON subject from the List of Electives			6
Plus			
300/400-level INFO/MATH/ECON/STAT subject from the List of Electives.			6

Note 1: Enrolment in MATH471 or MATH472 is restricted to those candidates who have a WAM greater than or equal to 67.5 on satisfactory completion of 144 credit points of the course, or permission of the Head of the School of Mathematics and Applied Statistics.

Note 2: Enrolment in INFO402 is restricted to those candidates who have a WAM greater than or equal to 67.5 on satisfactory completion of 144 credit points of the course, or permission of Course Coordinator.

List of Electives

ACCY102	Accounting 1B	Spring	6
FIN241	International Financial Management	Autumn	6
BUSS110	Introduction to Business Information Systems	Autumn/ Summer	6
BUSS201	User- Centred Business Programming	Autumn	6
BUSS211	Requirements Determination and Systems Analysis	Autumn	6
ECON301	Monetary Economics	Autumn	6
ECON305	Economic Policy	Spring	6
ECON309	Environmental Economics	Spring	6
ECON310	Cost Benefit Analysis	Spring	6
ECON317	Economics of Health Care	Autumn	8
ECON322	Mathematical Economics	Spring	6
ECON331	Financial Economics	Spring	6
INFO411	Data Mining and Knowledge Discovery	Spring	6
INFO412	Mathematics for Cryptography	Autumn	6
MATH204	Complex Variable and Group Theory	Spring	6
MATH212	Applied Mathematical Modelling 2	Spring	6
MATH222	Continuous and Finite Mathematics	Autumn	6
MATH305	Partial Differential Equations	Autumn	6
MATH321	Numerical Analysis	Spring	6
MATH322	Algebra	Autumn	6
MATH323	Topology and Chaos	Spring	6
MATH371	Special Topics in Industrial and Applied Mathematics 3	Autumn/ Spring	6
MATH372	Special Topics in Mathematical Analysis 3	Autumn	6
MATH473	Honours Topics in Mathematics C	N/A in 2004	6
MATH474	Honours Topics in Mathematics D	N/A in 2004	6
STAT231	Probability and Random Variables	Autumn	6
STAT232	Estimation and Hypothesis Testing	Spring	6
STAT304	Operation Research and Applied Probability	Spring	6
STAT332	Multiple Regression and Time Series	Spring	6

STAT333	Statistical Inference and Multivariate Analysis	Autumn	6
STAT335	Sample Surveys and Experimental Design	Autumn	6
STAT373	Special Topics in Probability and Statistics 3	Autumn/ Spring	6
STAT471	Honours Topics in Statistics A	Autumn/ Spring	6
STAT472	Honours Topics in Statistics B	Autumn/ Spring	6

Honours

To qualify for an award of Honours, students must satisfactorily complete the requirements listed in Year 4 (Honours) of the Course Program above. The classes of Honours awarded are defined in the Course Rules.

Bachelor of Mathematics and Finance

Testamur Title of Degree:	Bachelor of Mathematics and Finance
Abbreviation:	BMathFin
Home Faculty:	Informatics
Duration:	4 years or part-time equivalent
Total Credit Points:	192
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Standard Course Fee:	HECS (local); International \$7,700 per session
Location:	Wollongong
UOW Course Code:	767
UAC Code:	756503
CRICOS Code:	016107B

Overview

The Bachelor of Mathematics and Finance is an elite degree that provides graduates with a firm foundation in both mathematics and finance.

The degree covers the basics of corporate finance, financial institutions and investments, and allows students to specialise through the choice of elective subjects.

Entry Requirements / Assumed Knowledge

Approximate UAI: 82

Assumed Knowledge: Any two units of English plus HSC Mathematics

Recommended Studies: HSC Mathematics Extension 1

For entry requirements for students 21 & over or international students, please refer to the relevant prospectus.

Course Requirements

To qualify for the award of the degree of Bachelor of Mathematics and Finance a candidate shall satisfactorily complete at least 192 credit points of prescribed subjects, together with the requirements prescribed for the program.

Of the 192 credit points:

- i) the subjects listed in the Recommended Program are compulsory unless explicitly stated otherwise;
- ii) at least 168 credit points shall be for MATH, STAT, ACCY, ECON, FIN and MGMT subjects;
- iii) no more than 66 credit points shall be for 100-level subjects;
- iv) for the non-Honours strand, at least 60 credit points shall be for 300- and/or 400-level subjects; including at least 24 credit points of MATH/STAT subjects and at least 24 credit points of ACCY/FIN subjects and
- v) for the Honours strand, at least 72 credit points shall be for 300- and/or 400-level subjects, including at least 24 credit points of MATH/STAT subjects and at least 24 credit points of ACCY/FIN subjects. At least 36 of these 72 credit points shall be for 400-level subjects including at least one 6 credit point MATH or STAT subject.

The following program of study is recommended to satisfy the requirements in minimum time.

Course Program

Subjects	Session	Credit Points	
Year 1			
ACCY100	Accounting 1A	Autumn	6
ACCY102	Accounting 1B	Spring	6
ECON101	Macroeconomic Essentials for Business	Autumn	6
MATH187	Mathematics 1A Part 1	Autumn	6
MATH188	Mathematics 1A Part 2	Spring	6
MATH111	Applied Mathematical Modelling 1	Spring	6
STAT131#	Understanding Variation and Uncertainty	Autumn	6
Plus either			
BUSS111	Business Programming I	Spring	6
or			
CSCI114	Procedural Programming	Spring	6
# Not compulsory, but still recommended. Students may select an alternative subject from the List of Electives or enrol in a compulsory subject from a later year of the program			
Year 2			
FIN221	Business Finance I	Autumn/ Summer	6
ECON111	Introductory Microeconomics	Autumn/ Spring	6
MATH201	Multivariate and Vector Calculus	Autumn	6
MATH202	Differential Equations 2	Spring	6
FIN223	Investments I	Spring	6
STAT231	Probability and Random Variables	Autumn	6
STAT232	Estimation and Hypothesis Testing	Spring	6
Plus			
Subject chosen from List of Electives			6
Year 3			
FIN322	Business Finance II	Spring	6
FIN323	Investments II	Autumn	6
ECON331	Financial Economics	Spring	6
MATH203	Linear Algebra	Autumn	6
MATH317	Financial Calculus and Logistics	Autumn	6
STAT332	Multiple Regression and Time Series	Spring	6
Plus			
Subjects chosen from List of Electives			12
Year 4 (Non Honours)			
Subjects chosen from List of Electives			48
Year 4 (Honours)			
Entry to this program is restricted to candidates who satisfy the prerequisite to INFO401			
ACCY407	Empirical Research Methods	N/A in 2004	6
INFO401	Mathematics and Finance Honours Project (see Note 4)	Spring/ Annual	12
Plus			
Subjects chosen from List of Electives			30
Note 4: Enrolment in INFO401 is restricted to those candidates who have a WAM greater than or equal to 67.5 on satisfactory completion of 144 credit points of the course.			
List of Electives			
ACCY201	Financial Accounting IIB	Spring	6
ACCY202	Financial Accounting IIA	Autumn	6
ACCY407	Empirical Research Methods	N/A in 2004	6
BUSS110	Introduction to Business Information Systems	Autumn/ Summer	6
BUSS211	Requirements Determination and Systems Analysis	Autumn	6
BUSS212	Database Management Systems	Spring	6
CSCI102	Systems	Spring	6
CSCI103	Algorithms and Problem Solving	Autumn/ Spring	6
CSCI124	Object Programming	Spring	6
CSCI204	The C Family and Unix	Autumn/ Spring	6
CSCI235	Databases	Spring	6
ECON215	Microeconomic Theory and Policy	Autumn/ Spring	6
ECON216	International Trade Theory and Policy	Spring	6
ECON301	Monetary Economics	Autumn	6
ECON305	Economic Policy	Spring	6
ECON307	International Monetary Economics	Spring	6
FIN226	Financial Institutions	Spring	6
FIN320	Risk and Insurance	Spring	6
FIN324	Financial Statement Analysis	Autumn	6
FIN325	Banking Practice	Autumn	6

FIN351	International Business Finance	Spring	6
FIN359	Selected Issues in Finance	N/A in 2004	6
FIN422	Investment Analysis	N/A in 2004	6
FIN423	Investment Management	N/A in 2004	6
FIN424	Corporate Financial Information Analysis	N/A in 2004	6
FIN425	Banking Theory and Practice	Autumn	6
FIN426	Studies in Business Finance	Autumn	6
FIN487	Special Topic in Finance	Autumn/ Spring	6
IACT201	Information Technology and Citizens' Rights	Autumn	6
INFO411	Data Mining and Knowledge Discovery	Spring	6
INFO412	Mathematics for Cryptography	Autumn	6
LAW100	Law in Society	Autumn	6
LAW210	Contract Law	Spring	6
MATH121	Discrete Mathematics	Autumn	6
MATH204	Complex Variables and Group Theory	Spring	6
MATH222	Continuous and Finite Mathematics	Autumn	6
MATH302	Differential Equations 3	Spring	6
MATH305	Partial Differential Equations	Autumn	6
MATH321	Numerical Analysis	Spring	6
MATH322	Algebra	Autumn	6
MATH323	Topology and Chaos	Spring	6
MATH371	Special Topics in Industrial and Applied Mathematics 3	Autumn/ Spring	6
MATH372	Special Topics in Mathematical Analysis 3	Autumn	6
MATH471	Honours Topics in Mathematics A	Autumn/ Spring	6
MATH472	Honours Topics in Mathematics B	Autumn/ Spring	6
MGMT308	Introduction to Management for Professionals A	Autumn	6
STAT131	Understanding Variation and Uncertainty	Autumn/ Spring	6
STAT304	Operations Research and Applied Probability	Spring	6
STAT333	Statistical Inference and Multivariate Analysis	Autumn	6
STAT335	Sample Surveys and Experimental Design	Autumn	6
STAT373	Special Topics in Probability and Statistics 3	Autumn/ Spring	6
STAT471	Honours Topics in Statistics A	Autumn/ Spring	6
STAT472	Honours Topics in Statistics B	Autumn/ Spring	6

Honours

To qualify for an award of Honours, students must satisfactorily complete the requirements listed in Year 4 (Honours) of the Course Program above. The classes of Honours awarded are defined in the Course Rules.

Bachelor of Mathematics Education

Refer to the Faculty of Education section for details of this program.

Bachelor of Mathematical Sciences

Refer to the Faculty of Science section for details of this program.

Bachelor of Computer Science – Bachelor of Laws

Refer to the Faculty of Law section for details of this double degree program.

Bachelor of Computer Science - Bachelor of Science

Testamur Title of Degree:	Bachelor of Computer Science (name of major) Bachelor of Science (name of major)
Abbreviation:	BCompSc/BSc
Home Faculty:	Informatics
Duration:	4 years of part-time equivalent
Total Credit Points:	216
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn
Standard Course Fee:	HECS (local); International \$8,900 per session
Location:	Wollongong
UOW Course Code:	768
UAC Code:	751402
CRICOS Code:	017737G

Overview

Please refer to the entries for the Bachelor of Computer Science and Bachelor of Science (in Faculties of Science and Engineering).

Entry Requirements / Assumed Knowledge

Please refer to the entry requirements/assumed knowledge for the Bachelor of Computer Science and Bachelor of Science (in Faculties of Science and Engineering).

Advanced Standing

Information about Approved Credit Transfer Arrangements with domestic providers is available at:
<http://www.uow.edu.au/handbook/advancedstanding/>

Information about Approved Credit Transfer Arrangements with international providers is available at:
<http://www.uow.edu.au/discover/international/COURSES/courseset.html#advanced>

Course Requirements

To qualify for the award of the double degree of Bachelor of Computer Science and Bachelor of Science, candidates must satisfactorily complete the subjects and credit points as prescribed in the following Program, and in so doing, satisfy the requirements of Course Rules 107 and 109 for the Bachelor of Computer Science and the Bachelor of Science, respectively.

Minimum Performance Requirement

Candidates must maintain a weighted average mark (WAM) of at least 65 at the end of each year, otherwise they must show cause as to why they should be permitted to remain registered for the two courses.

Candidates who, at the end of any year of registration, have satisfied the minimum rate of progress requirements under General Course Rule 8.8, but who do not have a WAM of at least 65 and who have not given adequate reason as to why they should be permitted to continue with registration for the joint course, will be required to transfer into either a Bachelor of Computer Science or a Bachelor of Science.

Course Program

Subjects	Session	Credit Points
Year 1		
CSCI103 Algorithms and Problem Solving	Autumn	6
CSCI114 Procedural Programming	Autumn	6
CSCI124 Object Programming	Spring	6
MATH121 Discrete Mathematics	Autumn	6

Plus 24 credit points from 100-level BIOL and/or CHEM and/or EESC and/or PHYS subjects selected from the Science Schedule

Year 2		
CSCI102 Systems	Autumn	6
CSCI203 Algorithms and Data Structures	Autumn	6
CSCI204 The C Family and Unix	Spring	6
STAT131 Understanding Variation and Uncertainty	Autumn/ Spring	6

Plus at least 18 credit points from 100- and/or 200-level BIOL and/or CHEM and/or EESC and/or PHYS subjects selected from the Science Schedule.

Plus at least 18 credit points selected from the Computer Science, Science and/or General Schedules.

Year 3

CSCI212	Interacting Systems	Autumn	6
CSCI222	Systems Development	N/A in 2004	6

Plus at least 12 credit points of 300-level subjects selected from the Computer Science Schedule.

Plus at least 24 credit points from 200- and/or 300-level BIOL and/or CHEM and/or EESC and/or PHYS subjects selected from the Science Schedule.

Plus at least 12 credit points selected from the Computer Science, Science and/or General Schedules.

Year 4

CSCI321	Project	Annual	12
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Plus at least 12 credit points of 300-level subjects selected from the Computer Science Schedule.

Plus at least 24 credit points from 200- and/or 300-level BIOL and/or CHEM and/or EESC and/or PHYS subjects selected from the Science Schedule.

If the Science major study is Physics, please refer to your coordinator for details of MATHS subject selection.

Major Study Areas

Please refer to the separate entries for the Bachelor of Computer Science and the Bachelor of Science (in Faculties of Science and Engineering).

Honours

Candidates may apply, within normal procedures, to register for either, or consecutively, both, the Bachelor of Computer Science (Honours) or the Bachelor of Science (Honours) after the satisfactory completion of the joint program.

Professional Recognition

The Bachelor of Computer Science has recently been revised, therefore re-accreditation by the Australian Computer Society as meeting requirements for membership at a "Professional level" is currently being sought.

Bachelor of Creative Arts - Bachelor of Computer Science

Testamur Title of Degree:	Bachelor of Creative Arts (major study) Bachelor of Computer Science (major study)
Abbreviation:	BCA/BCompSc
Home Faculty:	Creative Arts
Duration:	4 years or part-time equivalent
Total Credit Points:	216
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn
Standard Course Fee:	HECS (local); International \$8,900 per session
Location:	Wollongong
UOW Course Code:	844
UAC Code:	751503
CRICOS Code:	031166K

Overview

Please refer to the entries for the Bachelor of Creative Arts and the Bachelor of Computer Science.

Entry Requirements / Assumed Knowledge

Please refer to the entry requirements/assumed knowledge for the Bachelor of Creative Arts and the Bachelor of Computer Science.

Advanced Standing

Information about Approved Credit Transfer Arrangements with domestic providers is available at:
<http://www.uow.edu.au/handbook/advancedstanding/>

Information about Approved Credit Transfer Arrangements with international providers is available at:
<http://www.uow.edu.au/discover/international/COURSES/courseset.html#advanced>

Course Requirements

To qualify for award of the double degree of Bachelor of Creative Arts - Bachelor of Computer Science, a candidate must satisfactorily complete at least 216 credit points from the Computer Science Schedule, the Creative Arts Schedule and the General Schedule.

The 216 credit points must include:

- no more than 96 credit points at 100 level;
- no more than 36 credit points (ie 1/6) of subjects at PC grade.

The 108 credit points for Creative Arts must include a major study for the Bachelor of Creative Arts comprising 108 credit points of compulsory subjects as listed in the Bachelor of Creative Arts course structure.

The 108 credit points for Computer Science must include:

- the following core subjects:

CSCI102	Systems
CSCI103	Algorithms & Problem Solving
CSCI114	Procedural Programming
CSCI124	Object Programming
MATH121	Discrete Mathematics
STAT131	Understanding Variation & Uncertainty
CSCI203	Algorithms and Data Structures
CSCI204	The C Family and Unix
CSCI212	Interacting Systems
CSCI222	Systems Development
CSCI321	Project
- An additional 24 credit points of 300-level subjects, of which 12 credit points must be CSCI subjects. Note that at least 24 credit points of 300-level subjects, including CSCI321, must be at pass grade or better.
- Elective subjects from the Computer Science Schedule, the Creative Arts Schedule or the General Schedule to the value of at least 12 credit points.

Course Program

The following program of study is recommended to satisfy the requirements in minimum time

Subjects	Session	Credit Points
Year 1		
CSCI103 Algorithms and Problem Solving	Autumn/Spring	6
CSCI114 Procedural Programming	Autumn/Spring	6
Plus up to 36 credit points of prescribed subjects for a Major Study selected from the Creative Arts course structure.		
Year 2		
CSCI102 Systems	Autumn	6
CSCI124 Object Programming	Spring	6
CSCI212 Interacting Systems	Autumn	6
CSCI222 Systems Development	N/A in 2004	6
MATH121 Discrete Mathematics	Autumn	6
STAT131 Understanding Variation and Uncertainty	Autumn/ Spring	6
Plus up to 24 credit points of prescribed subjects for a Major Study selected from the Creative Arts course structure.		
Year 3		
CSCI203 Algorithms and Data Structures	Autumn	6
CSCI204 The C Family and Unix	Autumn/ Spring	6
Plus 12 credit points selected from the Computer Science Schedule, the Creative Arts Schedule or the General Schedule.		
Plus 12 credit points of 300-level subjects (Noting that CSCI336 Computer Graphics is required for the students enrolled in the Visual or Graphic Arts Studies programme in the Creative Arts degree.)		
Plus up to 24 credit points of prescribed subjects for a Major Study selected from the Creative Arts course structure.		
Year 4		
CSCI321 Project	Annual	12
Plus 12 credit points of 300 level Computer Science subjects		
Plus 24 credit points of subjects from Creative Arts Schedule		

Major Study Areas

Please refer to the entries for the Bachelor of Creative Arts and the Bachelor of Computer Science

Honours

Subject to satisfactory performance, existing 48 credit point end-on honours courses will be available for either the Bachelor of Computer Science or the Bachelor of Creative Arts, or sequentially for both degrees. Please refer the entries for each degree for further details.

Professional Recognition

The Bachelor of Computer Science has recently been revised, therefore re-accreditation by the Australian Computer Society as meeting requirements for membership at a "Professional level" is currently being sought.

Bachelor of Engineering – Bachelor of Arts

Testamur Title of Degree:	Bachelor of Engineering (name of major) Bachelor of Arts (name of major)
Abbreviation:	BE,BA
Home Faculty:	Informatics
Duration:	5 years or part-time equivalent
Total Credit Points:	274
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Standard Course Fee:	HECS (local); International \$8,900 per session
Location:	Wollongong
UOW Course Code:	704E, 704F
UAC Code:	751303
CRICOS Code:	048492A

Overview

There is a high demand in industry and commerce for quality graduates who have expertise in more than one discipline. The double degree program Bachelor of Engineering-Bachelor of Arts combines the aims of the BE with those of the BA.

It offers the opportunity for professional engineering students, who have a flair for languages, history, philosophy, etc., to combine their interest with their professional engineering studies in computer, electrical or telecommunications engineering.

Please refer to the entries for the Bachelor of Engineering and the Bachelor of Arts for further details.

Entry Requirements/Assumed Knowledge

Approximate UAI: 90

Assumed Knowledge: Any two units of English plus Mathematics and two units of Science.

Recommended Studies: English Advanced, HSC Mathematics Extension 1, Physics.

For entry requirements for students 21 & over or international students, please refer to the relevant prospectus.

Advanced Standing

Information about Approved Credit Transfer Arrangements with domestic providers is available at:
<http://www.uow.edu.au/handbook/advancedstanding/>

Information about Approved Credit Transfer Arrangements with international providers is available at:
<http://www.uow.edu.au/discover/international/COURSES/courseset.html#advanced>

Course Requirements

Students are required to satisfactorily complete one of the programs in Computer Engineering, Electrical Engineering or Telecommunications Engineering listed below.

Normally a double degree program requires students to complete 264 credit points, in some cases, however, depending upon the program of study chosen, this number may be exceeded.

Generally, there is a minimum requirement of 72 credit points in subjects from the Arts Schedule for the BA. In most cases, however, students should expect to be required to take up to 90 credit points from the Arts Schedule.

The choice of Arts subjects will be constrained by the requirements for a BA degree as set out in the Course Rules and is subject to the approval of the Head of the School of Electrical, Computer and Telecommunications Engineering and the Sub-Dean of the Faculty of Arts.

All BE,BA students must sit for and perform satisfactorily in an English Literacy Test organised by the School in association with the Student Learning Development Centre. The test will be held during the first session of a student's enrolment at the University. It is a requirement of the BE degree that the student perform satisfactorily in at least one such test prior to enrolment in ECTE457 Thesis. Students who are deemed to require tuition in literacy in order to complete this requirement will be advised accordingly and will be required to repeat the literacy test the following year. Enrolment in and attendance at literacy courses will be the individual responsibility of the students concerned.

As indicated in the individual subject pre-requisites, students are required to complete satisfactorily the recommended first year before beginning the recommended third year and to complete satisfactorily the recommended second year before beginning the recommended fifth year. With the approval of the Head of the School of Electrical, Computer and Telecommunications Engineering, these requirements may be waived.

It is a requirement of the BE,BA that all students enrolled maintain weighted average mark of 67.5% or better throughout the course or they will be transferred to the BE Course.

Professional Experience

All BE,BA students must accumulate at least 12 weeks of approved professional engineering experience, documented in the form of employment reports and preferably in the period between Years 4 and 5.

Honours

The degree of Bachelor of Engineering (Honours) is awarded for meritorious performance over the course and particularly in the final year thesis subject. The classes of honours awarded are defined in the Course Rules.

Please refer to the Bachelor of Arts entry for detail regarding the Bachelor of Arts (Honours).

Professional Recognition

The Bachelor of Engineering (Computer Engineering) degree is accredited by Engineers Australia, the Australian Computer Society and the Singapore Professional Engineers Board.

The Bachelor of Engineering (Electrical Engineering) degree is accredited by Engineers Australia and the Singapore Professional Engineers Board.

The Bachelor of Engineering (Telecommunications Engineering) degree is accredited by Engineers Australia.

Other Information

With the approval of the Head of the School of Electrical, Computer and Telecommunications Engineering and the Sub-Dean of the Faculty of Arts, students who have completed the recommended first year program of the Bachelor of Engineering (Computer Engineering or Electrical Engineering or Telecommunications Engineering) course and who have gained a weighted average mark of 67.5% or better may transfer to the BE,BA.

Further information is available from <http://www.informatics.uow.edu.au/> or contact the School of Electrical, Computer and Telecommunications Engineering on +61 2 4221 3065.

Bachelor of Engineering (Computer Engineering) – Bachelor of Arts

To qualify for award of the degrees of Bachelor of Engineering (Computer Engineering) and Bachelor of Arts, a candidate must complete satisfactorily and independently each of (a) and (b) as follows:

- (a) all subjects prescribed for the Bachelor of Engineering (Computer Engineering), (except the Computer Option) having a value of 186 credit points; and
- (b) the requirements for the Bachelor of Arts.

To qualify for the award of the degree of Bachelor of Arts only, a candidate must satisfy requirements stipulated in Course Rule 105.

Recommended Full-Time Program

Subjects	Session	Credit Points
Year 1		
CSCI114 Procedural Programming	Autumn	6
ECTE150 Engineering Design and Management 1	Autumn	6
MATH187 Mathematics 1A Part 1	Autumn	6

PHYS141	Fundamentals of Physics A	Autumn	6
CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
MATH188	Mathematics 1A Part 2	Spring	6
PHYS142	Fundamentals of Physics B	Spring	6

Note:

MATH187 may be replaced by MATH141/161

MATH188 may be replaced by MATH142/162

Year 2

CSCI204	The C Family and Unix	Autumn/ Spring	6
or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
ECTE233	Digital Hardware 1	Autumn	6
MATH283	Mathematics 2E for Engineers Part 1	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
Plus	Choice of 100/200-level Arts Subjects	Autumn/ Spring	18

Year 3

ECTE250	Engineering Design and Management 2	Annual	6
ECTE344	Control Theory	Autumn	6
ECTE333	Digital Hardware 2	Spring	6
ENGG291	Engineering Fundamentals	Spring	6
Plus	Choice of 200/300-level Arts Subjects	Autumn/ Spring	30

Year 4

ECTE313	Electronics	Annual	6
ECTE350	Engineering Design and Management 3	Annual	6
ECTE363	Communication Theory	Autumn	6
CSCI205	Development Methods and Tools	Spring	6
ECTE301	Digital Signal Processing 1	Spring	6
Plus	Choice of 200/300-level Arts Subjects	Autumn/ Spring	32

Year 5

ECTE457	Thesis	Annual	18
CSCI311	Software Process Management	Autumn	6
ECTE431	Real-time Computing	Autumn	3
ECTE432	Computer Systems	Autumn	3
Plus	2 Final Year Specialisation Subjects	Autumn	6
	4 Final Year Specialisation Subjects	Spring	12
	Choice of 300-level Arts Subjects	Autumn/ Spring	8

Bachelor of Engineering (Electrical Engineering) – Bachelor of Arts

To qualify for award of the degrees of Bachelor of Engineering (Electrical Engineering) and Bachelor of Arts a candidate must complete satisfactorily and independently each of (a) and (b) as follows:

- all subjects prescribed for the Bachelor of Engineering (Electrical Engineering), (except the Electrical Option) and having a value of 186 credit points; and
- the requirements for the Bachelor of Arts.

To qualify for the award of the degree of Bachelor of Arts only, a candidate must satisfy requirements stipulated in Course Rule 105.

Recommended Full-Time Program

Subjects	Session	Credit Points	
Year 1			
CSCI114	Procedural Programming	Autumn	6
ECTE150	Engineering Design and Management 1	Autumn	6
MATH187	Mathematics 1A Part 1	Autumn	6
PHYS141	Fundamentals of Physics A	Autumn	6
CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
MATH188	Mathematics 1A Part 2	Spring	6
PHYS142	Fundamentals of Physics B	Spring	6

Note:

MATH187 may be replaced by MATH141/161

MATH188 may be replaced by MATH142/162

Course Information

Year 2			
CSCI204	The C Family and Unix	Autumn/ Spring	6
or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
ECTE233	Digital Hardware 1	Autumn	6
MATH283	Mathematics 2E for Engineers Part 1	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
Plus	Choice of 100/200-level Arts Subjects	Autumn/ Spring	18
Year 3			
ECTE250	Engineering Design and Management 2	Annual	6
ECTE344	Control Theory	Autumn	6
ECTE333	Digital Hardware 2	Spring	6
ENGG291	Engineering Fundamentals	Spring	6
Plus	Choice of 200/300-level Arts Subjects	Autumn/ Spring	30
Year 4			
ECTE313	Electronics	Annual	6
ECTE350	Engineering Design and Management 3	Annual	6
ECTE323	Power Engineering 2	Autumn	6
ECTE363	Communication Theory	Autumn	6
ECTE301	Digital Signal Processing 1	Spring	6
Plus	Choice of 200/300-level Arts Subjects	Autumn/ Spring	32
Year 5			
ECTE457	Thesis	Annual	18
Plus	6 Final Year Specialisation Subjects	Autumn	18
Plus	4 Final Year Specialisation Subjects	Autumn	12
Plus	Choice of 300-level Arts Subjects	Autumn/ Spring	8

Bachelor of Engineering (Telecommunications Engineering) – Bachelor of Arts

To qualify for award of the degrees of Bachelor of Engineering (Telecommunications Engineering) and Bachelor of Arts a candidate must complete satisfactorily and independently each of (a) and (b) as follows:

- all subjects prescribed for the Bachelor of Engineering (Telecommunications Engineering), (except the Telecommunications Option) and having a value of 186 credit points; and
- the requirements for the Bachelor of Arts.

To qualify for the award of the degree of Bachelor of Arts only, a candidate must satisfy requirements stipulated in Course Rule 105.

Recommended Full-Time Program

Subjects	Session	Credit Points	
Year 1			
CSCI114	Procedural Programming	Autumn	6
ECTE150	Engineering Design and Management 1	Autumn	6
MATH187	Mathematics 1A Part 1	Autumn	6
PHYS141	Fundamentals of Physics A	Autumn	6
CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
MATH188	Mathematics 1A Part 2	Spring	6
PHYS142	Fundamentals of Physics B	Spring	6
Note:			
MATH187 may be replaced by MATH141/161			
MATH188 may be replaced by MATH142/162			
Year 2			
CSCI204	The C Family and Unix	Autumn/ Spring	6
or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
ECTE233	Digital Hardware 1	Autumn	6
MATH283	Mathematics 2E for Engineers, Part 1	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
Plus	Choice of 100/200-level Arts Subjects	Autumn/ Spring	18

Year 3

ECTE250	Engineering Design and Management 2	Annual	6
ECTE333	Digital Hardware 2	Spring	6
ECTE344	Control Theory	Autumn	6
ENGG291	Engineering Fundamentals	Spring	6
Plus	Choice of 200/300-level Arts Subjects	Autumn/ Spring	30

Year 4

ECTE313	Electronics	Annual	6
ECTE350	Engineering Design and Management 3	Annual	6
ECTE363	Communication Theory	Autumn	6
ECTE364	Telecommunication Networks 1	Autumn	6
ECTE301	Digital Signal Processing 1	Spring	6
ECTE381	Internet Engineering 1	Spring	6
Plus	Choice of 200/300-level Arts Subjects	Autumn/ Spring	24

Year 5

ECTE457	Thesis	Annual	18
ECTE461	Telecommunications Queuing Theory	Autumn	3
ECTE462	Telecommunications System Modelling	Autumn	3
Plus	2 Final Year Specialisation Subjects	Autumn	6
	4 Final Year Specialisation Subjects	Spring	12
	Choice of 300-level Arts Subjects	Autumn/ Spring	16

Bachelor of Engineering – Bachelor of Commerce

Testamur Title of Degree:	Bachelor of Engineering (name of major) Bachelor of Commerce (name of major)
Abbreviation:	BE,BCom
Home Faculty:	Informatics
Duration:	5 years or part-time equivalent
Total Credit Points:	264
Delivery Mode:	Face-to face
Starting Session(s):	Autumn/Spring
Standard Course Fee:	HECS (local); International \$8,900 per session
Location:	Wollongong
UOW Course Code:	727F
UAC Code:	751602
CRICOS Code:	042625G

Overview

There is a high demand in industry and commerce for quality graduates who have expertise in more than one discipline. The double degree program Bachelor of Engineering-Bachelor of Commerce combines the aims of the BE with those of the BCom. It offers the opportunity for professional engineering students, who have a flair for business, finance, management, marketing, etc., to combine their interest with their professional engineering studies in computer, electrical or telecommunications engineering. It is likely to be of particular interest to those students who wish to undertake a career in management.

Please refer to the entries for the Bachelor of Engineering and the Bachelor of Commerce for further details.

Entry Requirements / Assumed Knowledge

Approximate UAI: 90

Assumed Knowledge: Any two units of English plus Mathematics and two units of Science.

Recommended Studies: English Advanced, HSC Mathematics Extension 1, Physics.

For entry requirements for students 21 & over or international students, please refer to the relevant prospectus.

Advanced Standing

Information about Approved Credit Transfer Arrangements with domestic providers is available at:
<http://www.uow.edu.au/handbook/advancedstanding/>

Information about Approved Credit Transfer Arrangements with international providers is available at:
<http://www.uow.edu.au/discover/international/COURSES/courseset.html#advanced>

Course Requirements

Students are required to satisfactorily complete one of the programs in Computer Engineering, Electrical Engineering or Telecommunications Engineering listed below. Normally a double degree program requires students to complete 264 credit points, in some cases, however, depending upon the program of study chosen, this number may be exceeded.

To assist students to complete their program, some Commerce subjects are available in Summer Session. Students should consult the timetable for details.

The choice of Commerce subjects will be constrained by the requirements for a BCom degree as set out in the Course Rules and is subject to the approval of the Head of the School of Electrical, Computer and Telecommunications Engineering and the Sub-Dean of the Faculty of Commerce.

All BE,BCom students must sit for and perform satisfactorily in an English Literacy Test organised by the School in association with the Student Learning Development Centre. The test will be held during the first session of a student's enrolment at the University. It is a requirement of the BE degree that the student perform satisfactorily in at least one such test prior to enrolment in ECTE457 Thesis. Students who are deemed to require tuition in literacy in order to complete this requirement will be advised accordingly and will be required to repeat the literacy test the following year. Enrolment in and attendance at literacy courses will be the individual responsibility of the students concerned.

As indicated in the individual subject pre-requisites, students are required to complete satisfactorily the recommended first year before beginning the recommended third year and to complete satisfactorily the recommended second year before beginning the recommended fifth year. With the approval of the Head of the School of Electrical, Computer and Telecommunications Engineering, these requirements may be waived.

It is a requirement of the BE,BCom that all students enrolled maintain a weighted average mark of 67.5% or better throughout the course or they will be transferred to the BE Course.

Professional Experience

All BE,BCom students must accumulate at least 12 weeks of approved professional engineering experience, documented in the form of employment reports and preferably in the period between Years 4 and 5.

Honours

The degree of Bachelor of Engineering (Honours) is awarded for meritorious performance over the course and particularly in the final year thesis subject. The classes of honours awarded are defined in the Course Rules.

Please refer to the Bachelor of Commerce entry for detail regarding the Bachelor of Commerce (Honours).

Professional Recognition

The Bachelor of Engineering (Computer Engineering) degree is accredited by Engineers Australia, the Australian Computer Society and the Singapore Professional Engineers Board.

The Bachelor of Engineering (Electrical Engineering) degree is accredited by Engineers Australia and the Singapore Professional Engineers Board.

The Bachelor of Engineering (Telecommunications Engineering) degree is accredited by Engineers Australia.

Other Information

With the approval of the Head of the School of Electrical, Computer and Telecommunications Engineering and the Sub-Dean of the Faculty of Commerce, students who have completed the recommended first year program of the Bachelor of Engineering (Computer Engineering or Electrical Engineering or Telecommunications Engineering) course and who have gained a weighted average mark of 67.5% or better may transfer to the BE,BCom.

Further information is available from <http://www.informatics.uow.edu.au/> or contact the School of Electrical, Computer and Telecommunications Engineering on +61 2 4221 3065.

Bachelor of Engineering (Computer Engineering) – Bachelor of Commerce

To qualify for award of the degrees of Bachelor of Engineering (Computer Engineering) and Bachelor of Commerce a candidate must complete satisfactorily and independently each of (a) and (b) as follows:

- (a) all subjects prescribed for the Bachelor of Engineering (Computer Engineering), (except ECTE150 Engineering Design and Management 1, ECTE250 Engineering Design and Management 2 and the Computer Option) and having a value of 174 credit points; and
- (b) the requirements for the Bachelor of Commerce.

To qualify for the award of the degree of Bachelor of Commerce only, a candidate must satisfy requirements stipulated in Course Rule 106.

Recommended Full-Time Program

Subjects	Session	Credit Points
Year 1		
CSCI114 Procedural Programming	Autumn/ Spring	6
MATH187 Mathematics 1A Part 1	Autumn	6
PHYS141 Fundamentals of Physics A	Autumn	6
CSCI121 Computer Science 1B	Spring	6
ECTE101 Electrical Engineering 1	Spring	6
MATH188 Mathematics 1A Part 2	Spring	6
PHYS142 Fundamentals of Physics B	Spring	6
Plus Choice of 100-level Commerce Subjects	Autumn	6
Note: MATH187 may be replaced by MATH141/161 MATH188 may be replaced by MATH142/162		
Year 2		
CSCI204 The C Family and Unix	Autumn/ Spring	6
or CSCI213 Java Programming and the Internet	Autumn/ Spring	6
Plus ECTE202 Circuits and Systems	Annual	6
ECTE233 Digital Hardware 1	Autumn	6
MATH283 Mathematics 2E for Engineers Part 1	Autumn	6
ECTE212 Electronics and Communications	Spring	6
ECTE222 Power Engineering 1	Spring	6
Plus Choice of 100/200-level Commerce Subjects	Autumn/ Spring	18
Year 3		
ECTE313 Electronics	Annual	6
ECTE344 Control Theory	Autumn	6
ECTE333 Digital Hardware 2	Spring	6
ENGG291 Engineering Fundamentals	Spring	6
Plus Choice of 200/300-level Commerce Subjects	Autumn/ Spring	30
Year 4		
ECTE350 Engineering Design and Management 3	Annual	6
ECTE363 Communication Theory	Autumn	6
CSCI205 Development Methods and Tools	Spring	6
ECTE301 Digital Signal Processing 1	Spring	6
Plus Choice of 200/300-level Commerce Subjects	Autumn/ Spring	30
Year 5		
ECTE457 Thesis	Annual	18
CSCI311 Software Process Management	Autumn	6
ECTE431 Real-time Computing	Autumn	3
ECTE432 Computer Systems	Autumn	3
Plus 2 Final Year Specialisation Subjects	Autumn	6
4 Final Year Specialisation Subjects	Spring	12
300-level Commerce Subject	Autumn/ Spring	6

Bachelor of Engineering (Electrical Engineering) – Bachelor of Commerce

To qualify for award of the degrees of Bachelor of Engineering (Electrical Engineering) and Bachelor of Commerce a candidate must complete satisfactorily and independently each of (a) and (b) as follows:

- all subjects prescribed for the Bachelor of Engineering (Electrical Engineering), (except ECTE150 Engineering Design and Management 1, ECTE250 Engineering Design and Management 2 and the Electrical Option) and having a value of 174 credit points; and
- the requirements for the Bachelor of Commerce.

To qualify for the award of the degree of Bachelor of Commerce only, a candidate must satisfy requirements stipulated in Course Rule 106.

Recommended Full-Time Program

Subjects	Session	Credit Points
Year 1		
CSCI114 Procedural Programming	Autumn/ Spring	6
MATH187 Mathematics 1A Part 1	Autumn	6
PHYS141 Fundamentals of Physics A	Autumn	6
CSCI121 Computer Science 1B	Spring	6
ECTE101 Electrical Engineering 1	Spring	6
MATH188 Mathematics 1A Part 2	Spring	6
PHYS142 Fundamentals of Physics B	Spring	6
Plus Choice of 100-level Commerce Subjects	Autumn	6

Course Information

Note:

MATH187 may be replaced by MATH141/161

MATH188 may be replaced by MATH142/162

Year 2

CSCI204	The C Family and Unix	Autumn/ Spring	6
or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
ECTE233	Digital Hardware 1	Autumn	6
MATH283	Mathematics 2E for Engineers Part 1	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
Plus	Choice of 100/200-level Commerce Subjects	Autumn/ Spring	18

Year 3

ECTE313	Electronics	Annual	6
ECTE344	Control Theory	Autumn	6
ECTE333	Digital Hardware 2	Spring	6
ENGG291	Engineering Fundamentals	Spring	6
Plus	Choice of 200/300-level Commerce Subjects	Autumn/ Spring	30

Year 4

ECTE350	Engineering Design and Management 3	Annual	6
ECTE323	Power Engineering 2	Autumn	6
ECTE363	Communication Theory	Autumn	6
ECTE301	Digital Signal Processing 1	Spring	6
Plus	Choice of 200/300-level Commerce Subjects	Autumn/ Spring	30

Year 5

ECTE457	Thesis	Annual	18
Plus	6 Final Year Specialisation Subjects	Autumn	18
	4 Final Year Specialisation Subjects	Spring	12
	300-level Commerce Subject	Autumn/ Spring	6

Bachelor of Engineering (Telecommunications Engineering) – Bachelor of Commerce

To qualify for award of the degrees of Bachelor of Engineering (Telecommunications Engineering) and Bachelor of Commerce a candidate must complete satisfactorily and independently each of (a) and (b) as follows:

- all subjects prescribed for the Bachelor of Engineering (Telecommunications Engineering), (except ECTE150 Engineering Design and Management 1, ECTE250 Engineering Design and Management 2 and the Telecommunications Option) and having a value of 174 credit points; and
- the requirements for the Bachelor of Commerce.

To qualify for the award of the degree of Bachelor of Commerce only, a candidate must satisfy requirements stipulated in Course Rule 106.

Recommended Full-Time Program

Subjects	Session	Credit Points	
Year 1			
CSCI114	Procedural Programming	Autumn/ Spring	6
CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
MATH187	Mathematics 1A Part 1	Autumn	6
MATH188	Mathematics 1A Part 2	Spring	6
PHYS141	Fundamentals of Physics A	Autumn	6
PHYS142	Fundamentals of Physics B	Spring	6
Plus	Choice of 100-level Commerce Subjects	Autumn	6
Note:			
MATH187 may be replaced by MATH141/161			
MATH188 may be replaced by MATH142/162			
Year 2			
CSCI204	The C Family and Unix	Autumn/ Spring	6
or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
ECTE233	Digital Hardware 1	Autumn	6
MATH283	Mathematics 2E for Engineers Part 1	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
Plus	Choice of 100/200-level Commerce Subjects	Autumn/ Spring	18

Year 3

ECTE313	Electronics	Annual	6
ECTE344	Control Theory	Autumn	6
ECTE333	Digital Hardware 2	Spring	6
ENGG291	Engineering Fundamentals	Spring	6
Plus	Choice of 200/300-level Commerce Subjects	Autumn/ Spring	30

Year 4

ECTE350	Engineering Design and Management 3	Annual	6
ECTE363	Communication Theory	Autumn	6
ECTE364	Telecommunication Networks 1	Autumn	6
ECTE301	Digital Signal Processing 1	Spring	6
ECTE381	Internet Engineering 1	Spring	6
Plus	Choice of 200/300-level Commerce Subjects	Autumn/ Spring	24

Year 5

ECTE457	Thesis	Annual	18
ECTE461	Telecommunications Queuing Theory	Autumn	3
ECTE462	Telecommunications System Modelling	Autumn	3
Plus	2 Final Year Specialisation Subjects	Autumn	6
	4 Final Year Specialisation Subjects	Spring	12
	300-level Commerce Subject	Autumn/ Spring	12

Bachelor of Engineering – Bachelor of Mathematics

Testamur Title of Degree:	Bachelor of Engineering (name of major) Bachelor of Mathematics (name of major)
Abbreviation:	BE, BMath
Home Faculty:	Informatics
Duration:	5 years or part-time equivalent
Total Credit Points:	264
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Standard Course Fee:	HECS (local); International \$8,900 per session
Location:	Wollongong
UOW Course Code:	738
UAC Code:	751611
CRICOS Code:	-

Overview

There is a high demand in industry and commerce for quality graduates who have expertise in more than one discipline. The double degree program Bachelor of Engineering-Bachelor of Mathematics combines the aims of the BE with those of the BMath. It offers the opportunity for professional engineering students, who have a flair for mathematics or statistics, to combine their interest with their professional engineering studies in computer, electrical or telecommunications engineering. It is likely to be of particular interest to those students who wish to undertake a career in research.

Please refer to the entries for the Bachelor of Engineering and the Bachelor of Mathematics for further details.

Entry Requirements/Assumed Knowledge

Approximate UAI: 90

Assumed Knowledge: Any two units of English plus Mathematics and two units of Science.

Recommended Studies: English Advanced, HSC Mathematics Extension 1, Physics.

For entry requirements for students 21 & over or international students, please refer to the relevant prospectus.

Advanced Standing

Information about Approved Credit Transfer Arrangements with domestic providers is available at:
<http://www.uow.edu.au/handbook/advancedstanding/>

Information about Approved Credit Transfer Arrangements with international providers is available at:
<http://www.uow.edu.au/discover/international/COURSES/courseset.html#advanced>

Course Requirements

Students are required to satisfactorily complete one of the programs in Computer Engineering, Electrical Engineering or Telecommunications Engineering listed below. Normally a double degree program requires students to complete 264 credit points, in some cases, however, depending upon the program of study chosen, this number may be exceeded.

The choice of Mathematics or Statistics subjects will be constrained by the requirements for a BMath degree as set out in the Course Rules and is subject to the approval of the Head of the School of Electrical, Computer and Telecommunications Engineering and the Head of the School of Mathematics and Applied Statistics.

All BE,BMath students must sit for and perform satisfactorily in an English Literacy Test organised by the School in association with the Student Learning Development Centre. The test will be held during the first session of a student's enrolment at the University. It is a requirement of the BE degree that the student perform satisfactorily in at least one such test prior to enrolment in ECTE457 Thesis. Students who are deemed to require tuition in literacy in order to complete this requirement will be advised accordingly and will be required to repeat the literacy test the following year. Enrolment in and attendance at literacy courses will be the individual responsibility of the students concerned.

As indicated in the individual subject pre-requisites, students are required to complete satisfactorily the recommended first year before beginning the recommended third year and to complete satisfactorily the recommended second year before beginning the recommended fifth year. With the approval of the Head of the School of Electrical, Computer and Telecommunications Engineering, these requirements may be waived.

It is a requirement of the BE,BMath that all students enrolled maintain a weighted average mark of 67.5% or better throughout the course or they will be transferred to the BE Course.

Professional Experience

All BE,BMath students must accumulate at least 12 weeks of approved professional experience, documented in the form of employment reports and preferably in the period between Years 4 and 5.

Honours

The degree of Bachelor of Engineering (Honours) is awarded for meritorious performance over the course and particularly in the final year thesis subject. The classes of honours awarded are defined in the Course Rules.

Please refer to the Bachelor of Mathematics entry for detail regarding the Bachelor of Mathematics (Honours).

Professional Recognition

The Bachelor of Engineering (Computer Engineering) degree is accredited by Engineers Australia, the Australian Computer Society and the Singapore Professional Engineers Board.

The Bachelor of Engineering (Electrical Engineering) degree is accredited by Engineers Australia and the Singapore Professional Engineers Board.

The Bachelor of Engineering (Telecommunications Engineering) degree is accredited by Engineers Australia.

Other Information

With the approval of the Head of the School of Electrical, Computer and Telecommunications Engineering and the Sub-Dean of the Faculty of Mathematics, students who have completed the recommended first year program of the Bachelor of Engineering (Computer Engineering or Electrical Engineering or Telecommunications Engineering) course and who have gained a weighted average mark of 67.5% or better may transfer to the BE,BMath.

Further information is available from <http://www.informatics.uow.edu.au/> or contact the School of Electrical, Computer and Telecommunications Engineering on +61 2 4221 3065.

Bachelor of Engineering (Computer Engineering) – Bachelor of Mathematics

To qualify for award of the degrees of Bachelor of Engineering (Computer Engineering) and Bachelor of Mathematics a candidate must complete satisfactorily and independently each of (a) and (b) as follows:

- (a) all subjects prescribed for the Bachelor of Engineering (Computer Engineering), (except MATH283 Mathematics 2E for Engineers Part 1 and replacing the Computer Option with an Informatics Option) and having a value of 186 credit points;
- (b) Requirements 2, 3, 6, 8(c) and 9, for the Bachelor of Mathematics, including no more than 18 credit points at 100-level.

To qualify for the award of the degree of Bachelor of Mathematics only, a candidate must satisfy requirements stipulated in Course Rule 108.

Recommended Full-Time Program

Subjects	Session	Credit Points
Year 1		
CSCI114 Procedural Programming	Autumn/ Spring	6
ECTE150 Engineering Design and Management 1	Autumn	6
MATH187 Mathematics 1A Part 1	Autumn	6
PHYS141 Fundamentals of Physics A	Autumn	6
CSCI121 Computer Science 1B	Spring	6
ECTE101 Electrical Engineering 1	Spring	6
MATH188 Mathematics 1A Part 2	Spring	6

PHYS142	Fundamentals of Physics B	Spring	6
Year 2			
CSCI204	The C Family and Unix	Autumn/ Spring	6
or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
ECTE233	Digital Hardware 1	Autumn	6
MATH201	Multivariate and Vector Calculus	Autumn	6
MATH203	Linear Algebra	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
MATH202	Differential Equations 2	Spring	6
MATH204	Complex Variables and Group Theory	Spring	6
Year 3			
ECTE250	Engineering Design and Management 2	Annual	6
ECTE333	Digital Hardware 2	Spring	6
ECTE344	Control Theory	Autumn	6
ENGG291	Engineering Fundamentals	Spring	6
STAT231	Probability and Random Variables	Autumn	6
Plus	Choice of 200/300 level Mathematics or Statistics Subjects	Autumn/ Spring	24
Year 4			
ECTE313	Electronics	Annual	6
ECTE350	Engineering Design and Management 3	Annual	6
ECTE363	Communication Theory	Autumn	6
CSCI205	Development Methods and Tools	Spring	6
ECTE301	Digital Signal Processing 1	Spring	6
Plus	Choice of 300-level Mathematics or Statistics Subjects	Autumn/ Spring	24
Year 5			
CSCI311	Software Process Management	Autumn	6
ECTE431	Real-time Computing	Autumn	3
ECTE432	Computer Systems	Autumn	3
ECTE457	Thesis	Annual	18
Plus	2 Final Year Specialisation Subjects	Autumn	6
Plus	4 Final Year Specialisation Subjects	Spring	12
Plus	Informatics Option	Autumn/ Spring	6

Informatics Option

Year 5:

With the approval of the Head of School, students may select:

- (a) one six credit point, 200 or 300 or 400-level subject from those listed in the General Schedule and offered by EITHER
- (i) the School of Information Technology and Computer Science (CSCI, IACT or ITCS); or
 - (ii) the School of Mathematics and Applied Statistics (MATH or STAT).

OR

- (b) ECTE281 Embedded Internet Systems

Note that this selection may be constrained by pre- and co-requisites and timetabling.

Bachelor of Engineering (Electrical Engineering) – Bachelor of Mathematics

To qualify for award of the degrees of Bachelor of Engineering (Electrical Engineering)-Bachelor of Mathematics a candidate must complete satisfactorily and independently each of (a) and (b) as follows:

- (a) all subjects prescribed for the Bachelor of Engineering (Electrical Engineering) (except MATH283 Mathematics 2E for Engineers Part 1 and replacing the Electrical Option with an Informatics Option) and having a value of 186 credit points;
- (b) Requirements 2, 3, 6, 8(c) and 9, for the Bachelor of Mathematics, including no more than 18 credit points at 100-level.

To qualify for the award of the degree of Bachelor of Mathematics only, a candidate must satisfy requirements stipulated in Course Rule 108.

Recommended Full-Time Program

Subjects	Session	Credit Points
Year 1		
CSCI114	Procedural Programming	Autumn/ Spring
ECTE150	Engineering Design and Management 1	Autumn
MATH187	Mathematics 1A Part 1	Autumn
PHYS141	Fundamentals of Physics A	Autumn

Course Information

CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
MATH188	Mathematics 1A Part 2	Spring	6
PHYS142	Fundamentals of Physics B	Spring	6
Year 2			
CSCI204	The C Family and Unix	Autumn/ Spring	6
or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
ECTE233	Digital Hardware 1	Autumn	6
MATH201	Multivariate and Vector Calculus	Autumn	6
MATH203	Linear Algebra	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
MATH202	Differential Equations 2	Spring	6
MATH204	Complex Variables and Group Theory	Spring	6
Year 3			
ECTE250	Engineering Design and Management 2	Annual	6
ECTE344	Control Theory	Autumn	6
STAT231	Probability and Random Variables	Autumn	6
ECTE333	Digital Hardware 2	Spring	6
ENGG291	Engineering Fundamentals	Spring	6
Plus	Choice of 200/300 level Mathematics or Statistics Subjects	Autumn/ Spring	24
Year 4			
ECTE313	Electronics	Annual	6
ECTE350	Engineering Design and Management 3	Annual	6
ECTE323	Power Engineering 2	Autumn	6
ECTE363	Communication Theory	Autumn	6
ECTE301	Digital Signal Processing 1	Spring	6
Plus	Choice of 300-level Mathematics or Statistics Subjects	Autumn/ Spring	24
Year 5			
ECTE457	Thesis	Annual	18
Plus	6 Final Year Specialisation Subjects	Autumn	18
	4 Final Year Specialisation Subjects	Spring	12
	Informatics Option	Autumn/ Spring	6

Informatics Option

Year 5:

With the approval of the Head of School, students may select:

- (a) one six credit point, 200 or 300 or 400-level subject from those listed in the General Schedule and offered by EITHER:
 - (i) the School of Information Technology and Computer Science (CSCI, IACT or ITCS); or
 - (ii) the School of Mathematics and Applied Statistics (MATH or STAT).
- OR
- (b) ECTE281 Embedded Internet Systems.

Note that this selection may be constrained by pre- and co-requisites and timetabling.

Bachelor of Engineering (Telecommunications Engineering) – Bachelor of Mathematics

To qualify for award of the degrees of Bachelor of Engineering (Telecommunications Engineering)-Bachelor of Mathematics a candidate must complete satisfactorily and independently each of (a) and (b) as follows:

- (a) all subjects prescribed for the Bachelor of Engineering (Telecommunications Engineering), (except MATH283 Mathematics 2E for Engineers Part 1 and replacing one Telecommunications Option with an Informatics Option) and having a value of 186 credit points;
- (b) Requirements 2, 3, 6, 8(c) and 9 for the Bachelor of Mathematics, including no more than 18 credit points at 100-level.

To qualify for the award of the degree of Bachelor of Mathematics only, a candidate must satisfy requirements stipulated in Course Rule 108.

Recommended Full-Time Program

Subjects	Session	Credit Points	
Year 1			
CSCI114	Procedural Programming	Autumn/ Spring	6
ECTE150	Engineering Design and Management 1	Autumn	6
MATH187	Mathematics 1A Part 1	Autumn	6

PHYS141	Fundamentals of Physics A	Autumn	6
CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
MATH188	Mathematics 1A Part 2	Spring	6
PHYS142	Fundamentals of Physics B	Spring	6
Year 2			
CSCI204	The C Family and Unix	Autumn/ Spring	6
or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
ECTE233	Digital Hardware 1	Autumn	6
MATH201	Multivariate and Vector Calculus	Autumn	6
MATH203	Linear Algebra	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
MATH202	Differential Equations 2	Spring	6
MATH204	Complex Variables and Group Theory	Spring	6
Year 3			
ECTE250	Engineering Design and Management 2	Annual	6
ECTE344	Control Theory	Autumn	6
STAT231	Probability and Random Variables	Autumn	6
ECTE333	Digital Hardware 2	Spring	6
ENGG291	Engineering Fundamentals	Spring	6
Plus	Choice of 200/300 level Mathematics or Statistics Subjects	Autumn/ Spring	24
Year 4			
ECTE301	Digital Signal Processing 1	Spring	6
ECTE313	Electronics	Annual	6
ECTE350	Engineering Design and Management 3	Annual	6
ECTE363	Communication Theory	Autumn	6
ECTE364	Telecommunication Networks 1	Autumn	6
ECTE381	Internet Engineering 1	Spring	6
Plus	Choice of 300-level Mathematics or Statistics Subjects	Autumn/ Spring	18
Year 5			
ECTE457	Thesis	Annual	18
ECTE461	Telecommunications Queuing Theory	Autumn	3
ECTE462	Telecommunications System Modelling	Autumn	3
Plus	2 Final Year Specialisation Subjects	Autumn	6
	4 Final Year Specialisation Subjects	Spring	12
	Informatics Option	Autumn/ Spring	6
	Choice of 300-level Mathematics or Statistics Subjects	Autumn/ Spring	6

Informatics Option

Year 5:

With the approval of the Head of School, students may select:

(a) one six credit point, 200 or 300 or 400-level subject from those listed in the General Schedule and offered by EITHER:

- (i) the School of Information Technology and Computer Science (CSCI, IACT or ITCS); or
- (ii) the School of Mathematics and Applied Statistics (MATH or STAT).

OR

(b) ECTE281 Embedded Internet Systems.

Note that this selection may be constrained by pre- and co-requisites and timetabling.

Bachelor of Engineering – Bachelor of Science

Testamur Title of Degree:	Bachelor of Engineering (name of major) Bachelor of Science (name of major)
Abbreviation:	BE,BSc
Home Faculty:	Informatics
Duration:	5 years or part-time equivalent
Total Credit Points:	264
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn/Spring
Standard Course Fee:	HECS (local); International \$8,900 per session
Location:	Wollongong
UOW Course Code:	739
UAC Code:	751621
CRICOS Code:	028398J

Overview

There is a high demand in industry and commerce for quality graduates who have expertise in more than one discipline. The double degree program Bachelor of Engineering-Bachelor of Science combines the aims of the BE with those of the BSc. It offers the opportunity for professional engineering students, who have a flair for the sciences, for example, physics, to combine their interest with their professional engineering studies in computer, electrical or telecommunications engineering. It is likely to be of particular interest to those students who wish to undertake a career in research.

Please refer to the entries for the Bachelor of Engineering and the Bachelor of Science (in Faculties of Science and Engineering) for further details.

Entry Requirements / Assumed Knowledge

Approximate UAI: 90

Assumed Knowledge: Any two units of English plus Mathematics and two units of Science.

Recommended Studies: English Advanced, HSC Mathematics Extension 1, Physics and two other units of Science.

For entry requirements for students 21 & over or international students, please refer to the relevant prospectus.

Advanced Standing

Information about Approved Credit Transfer Arrangements with domestic providers is available at:
<http://www.uow.edu.au/handbook/advancedstanding/>

Information about Approved Credit Transfer Arrangements with international providers is available at:
<http://www.uow.edu.au/discover/international/COURSES/courseset.html#advanced>

Course Requirements

Students are required to satisfactorily complete one of the programs in Computer Engineering, Electrical Engineering or Telecommunications Engineering listed below. Normally a double degree program requires students to complete 264 credit points, in some cases, however, depending upon the program of study chosen, this number may be exceeded.

The choice of Science subjects will be constrained by the requirements for a BSc degree as set out in the Course Rules and is subject to the approval of the Head of the School of Electrical, Computer and Telecommunications Engineering and the Head of the Department of Engineering Physics or the Sub-Dean, Faculty of Science.

All BE,BSc students must sit for and perform satisfactorily in an English Literacy Test organised by the School in association with the Student Learning Development Centre. The test will be held during the first session of a student's enrolment at the University. It is a requirement of the BE degree that the student perform satisfactorily in at least one such test prior to enrolment in ECTE457 Thesis. Students who are deemed to require tuition in literacy in order to complete this requirement will be advised accordingly and will be required to repeat the literacy test the following year. Enrolment in and attendance at literacy courses will be the individual responsibility of the students concerned.

As indicated in the individual subject pre-requisites, students are required to complete satisfactorily the recommended first year before beginning the recommended third year and to complete satisfactorily the recommended second year before beginning the recommended fifth year. With the approval of the Head of the School of Electrical, Computer and Telecommunications Engineering, these requirements may be waived.

It is a requirement of the BE,BA that all students enrolled maintain a weighted average mark of 67.5% or better throughout the course or they will be transferred to the BE Course.

Professional Experience

All BE,BSc students must accumulate at least 12 weeks of approved professional experience, documented in the form of employment reports and preferably in the period between Years 4 and 5.

Honours

The degree of Bachelor of Engineering (Honours) is awarded for meritorious performance over the course and particularly in the final year thesis subject. The classes of honours awarded are defined in the Course Rules.

Please refer to the Bachelor of Arts entry for detail regarding the Bachelor of Arts (Honours).

Professional Recognition

The Bachelor of Engineering (Computer Engineering) degree is accredited by Engineers Australia, the Australian Computer Society and the Singapore Professional Engineers Board.

The Bachelor of Engineering (Electrical Engineering) degree is accredited by Engineers Australia and the Singapore Professional Engineers Board.

The Bachelor of Engineering (Telecommunications Engineering) degree is accredited by Engineers Australia.

Other Information

With the approval of the Head of the School of Electrical, Computer and Telecommunications Engineering and the Sub-Dean of the Faculty of Arts, students who have completed the recommended first year program of the Bachelor of Engineering (Computer Engineering or Electrical Engineering or Telecommunications Engineering) course and who have gained a weighted average mark of 67.5% or better may transfer to the BE,BA.

Further information is available from <http://www.informatics.uow.edu.au/> or contact the School of Electrical, Computer and Telecommunications Engineering on +61 2 4221 3065.

Bachelor of Engineering (Computer Engineering) – Bachelor of Science

To qualify for award of the degrees of Bachelor of Engineering (Computer Engineering) and Bachelor of Science a candidate must complete satisfactorily and independently each of (a) and (b) as follows:

- all subjects prescribed for the Bachelor of Engineering (Computer Engineering), (replacing MATH283 Mathematics 2E for Engineers Part 1 with MATH201 Multivariate and Vector Calculus and MATH202 Differential Equations 2 and replacing the Computer Option with an Informatics Option) and having a value of 198 credit points;
- Requirements for the Bachelor of Science or the Bachelor of Science (Physics).

To qualify for the award of the degree of Bachelor of Science or Bachelor of Science (Physics) only, a candidate must satisfy requirements stipulated in Course Rule 110.

Recommended Full-Time Program

Subjects	Session	Credit Points
Year 1		
CSCI114 Procedural Programming	Autumn/ Spring	6
ECTE150 Engineering Design and Management 1	Autumn	6
MATH187 Mathematics 1A Part 1	Autumn	6
PHYS141 Fundamentals of Physics A	Autumn	6
CSCI121 Computer Science 1B	Spring	6
ECTE101 Electrical Engineering 1	Spring	6
MATH188 Mathematics 1A Part 2	Spring	6
PHYS142 Fundamentals of Physics B	Spring	6
Year 2		
CSCI204 The C Family and Unix	Autumn/ Spring	6
or CSCI213 Java Programming and the Internet	Autumn/ Spring	6
Plus		
ECTE202 Circuits and Systems	Annual	6
ECTE233 Digital Hardware 1	Autumn	6
MATH201 Multivariate and Vector Calculus	Autumn	6
ECTE212 Electronics and Communications	Spring	6
ECTE222 Power Engineering 1	Spring	6
MATH202 Differential Equations 2	Spring	6
Plus Choice of 100/200-level Science Subjects	Autumn/ Spring	12
Year 3		
ECTE250 Engineering Design and Management 2	Annual	6
ECTE344 Control Theory	Autumn	6
STAT231 Probability and Random Variables	Autumn	6
ECTE333 Digital Hardware 2	Spring	6
ENGG291 Engineering Fundamentals	Spring	6
Plus Choice of 200/300-level Science Subjects	Autumn/ Spring	24
Year 4		
ECTE313 Electronics	Annual	6
ECTE350 Engineering Design and Management 3	Annual	6

Course Information

ECTE363	Communication Theory	Autumn	6
CSCI205	Development Methods and Tools	Spring	6
ECTE301	Digital Signal Processing 1	Spring	6
Plus	Choice of 300-level Science Subjects	Autumn/ Spring	24

Year 5

CSCI311	Software Process Management	Autumn	6
ECTE431	Real-time Computing	Autumn	3
ECTE432	Computer Systems	Autumn	3
ECTE457	Thesis	Annual	18
Plus	2 Final Year Specialisation Subjects	Autumn	6
	4 Final Year Specialisation Subjects	Spring	12
	Informatics Option	Autumn/ Spring	6

Informatics Option

Year 5:

With the approval of the Head of School, students may select:

- (a) one six credit point, 200 or 300 or 400-level subject from those listed in the General Schedule and offered by EITHER
- the School of Information Technology and Computer Science (CSCI, IACT or ITCS); or
 - the School of Mathematics and Applied Statistics (MATH or STAT).

OR

- (b) ECTE281 Embedded Internet Systems.

Note that this selection may be constrained by pre- and co-requisites and timetabling.

Bachelor of Engineering (Electrical Engineering) – Bachelor of Science

To qualify for award of the degrees of Bachelor of Engineering (Electrical Engineering)-Bachelor of Science a candidate must complete satisfactorily and independently each of (a) and (b) as follows:

- a) all subjects prescribed for the Bachelor of Engineering (Electrical Engineering), (replacing MATH283 Mathematics 2E for Engineers Part 1 with MATH201 Multivariate and Vector Calculus and MATH202 Differential Equations 2 and replacing the Electrical Option with an Informatics Option) and having a value of 198 credit points;
- b) Requirements for the Bachelor of Science or the Bachelor of Science (Physics).

To qualify for the award of the degree of Bachelor of Science and Bachelor of Science (Physics) only, a candidate must satisfy requirements stipulated in Course Rule 110.

Recommended Full-Time Program

Subjects	Session	Credit Points	
Year 1			
CSCI114	Procedural Programming	Autumn/ Spring	6
ECTE150	Engineering Design and Management 1	Autumn	6
MATH187	Mathematics 1A Part 1	Autumn	6
PHYS141	Fundamentals of Physics A	Autumn	6
CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
MATH188	Mathematics 1A Part 2	Spring	6
PHYS142	Fundamentals of Physics B	Spring	6
Year 2			
CSCI204	The C Family and Unix	Autumn/ Spring	6
or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
ECTE233	Digital Hardware 1	Autumn	6
MATH201	Multivariate and Vector Calculus	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
MATH202	Differential Equations 2	Spring	6
Plus	Choice of 100/200-level Science Subjects	Autumn/ Spring	12
Year 3			
ECTE250	Engineering Design and Management 2	Annual	6
ECTE344	Control Theory	Autumn	6
ECTE333	Digital Hardware 2	Spring	6
ENGG291	Engineering Fundamentals	Spring	6
STAT231	Probability and Random Variables	Autumn	6
Plus	Choice of 200/300-level Science Subjects	Autumn/ Spring	24
Year 4			
ECTE313	Electronics	Annual	6
ECTE350	Engineering Design and Management 3	Annual	6

ECTE323	Power Engineering 2	Autumn	6
ECTE363	Communication Theory	Autumn	6
ECTE301	Digital Signal Processing 1	Spring	6
Plus	Choice of 300-level Science Subjects	Autumn/ Spring	24

Year 5

ECTE457	Thesis	Annual	18
Plus	6 Final Year Specialisation Subjects	Autumn	18
	4 Final Year Specialisation Subjects	Spring	12
	Informatics Option	Autumn/ Spring	6

Informatics Option

Year 5:

With the approval of the Head of School, students may select:

(a) one six credit point, 200 or 300 or 400-level subject from those listed in the General Schedule and offered by EITHER:

- (i) the School of Information Technology and Computer Science (CSCI, IACT or ITCS); or
- (ii) the School of Mathematics and Applied Statistics (MATH or STAT).

OR

(b) ECTE281 Embedded Internet Systems.

Note that this selection may be constrained by pre- and co-requisites and timetabling

Bachelor of Engineering (Telecommunications Engineering) – Bachelor of Science

To qualify for award of the degrees of Bachelor of Engineering (Telecommunications Engineering)-Bachelor of Science a candidate must complete satisfactorily and independently each of (a) and (b) as follows:

- (a) all subjects prescribed by the Bachelor of Engineering (Telecommunications Engineering), (replacing MATH283 Mathematics 2E for Engineers Part 1 with MATH201 Multivariate and Vector Calculus and MATH202 Differential Equations 2 and replacing the Telecommunications Option with an Informatics Option) and having a value of 198 credit points;
- (b) Requirements for the Bachelor of Science or Bachelor of Science (Physics).

To qualify for the award of the degree of Bachelor of Science only, a candidate must satisfy requirements stipulated in Course Rule 110.

Recommended Full-Time Program

Subjects	Session	Credit Points	
Year 1			
CSCI114	Procedural Programming	Autumn/ Spring	6
ECTE150	Engineering Design and Management 1	Autumn	6
MATH187	Mathematics 1A Part 1	Autumn	6
PHYS141	Fundamentals of Physics A	Autumn	6
CSCI121	Computer Science 1B	Spring	6
ECTE101	Electrical Engineering 1	Spring	6
MATH188	Mathematics 1A Part 2	Spring	6
PHYS142	Fundamentals of Physics B	Spring	6
Year 2			
CSCI204	The C Family and Unix	Autumn/ Spring	6
or			
CSCI213	Java Programming and the Internet	Autumn/ Spring	6
Plus			
ECTE202	Circuits and Systems	Annual	6
ECTE233	Digital Hardware 1	Autumn	6
MATH201	Multivariate and Vector Calculus	Autumn	6
ECTE212	Electronics and Communications	Spring	6
ECTE222	Power Engineering 1	Spring	6
MATH202	Differential Equations 2	Spring	6
Plus	Choice of 100/200-level Science Subjects	Autumn/ Spring	12
Year 3			
ECTE250	Engineering Design and Management 2	Annual	6
ECTE344	Control Theory	Autumn	6
STAT231	Probability and Random Variables	Autumn	6
ECTE333	Digital Hardware 2	Spring	6
ENGG291	Engineering Fundamentals	Spring	6
Plus	Choice of 200/300-level Science Subjects	Autumn/ Spring	24
Year 4			
ECTE301	Digital Signal Processing 1	Spring	6
ECTE313	Electronics	Annual	6

Course Information

ECTE350	Engineering Design and Management 3	Annual	6
ECTE363	Communication Theory	Autumn	6
ECTE364	Telecommunication Networks 1	Autumn	6
ECTE381	Internet Engineering 1	Autumn	6
Plus	Choice of 300-level Science Subjects	Autumn/ Spring	18
Year 5			
ECTE457	Thesis	Annual	18
ECTE461	Telecommunications Queuing Theory	Autumn	3
ECTE462	Telecommunications System Modelling	Autumn	3
Plus	2 Final Year Specialisation Subjects	Autumn	6
	4 Final Year Specialisation Subjects	Spring	12
	Informatics Option	Autumn/ Spring	6
	Choice of 300-level Science Subjects	Autumn/ Spring	6

Informatics Option

Year 5:

With the approval of the Head of School, students may select:

- (a) one six credit point, 200 or 300 or 400-level subject from those listed in the General Schedule and offered by EITHER:
(i) the School of Information Technology and Computer Science (CSCI, IACT or ITCS); or
(ii) the School of Mathematics and Applied Statistics (MATH or STAT)

OR

- (b) ECTE281 Embedded Internet Systems.

Note that this selection may be constrained by pre- and co-requisites and timetabling.

Bachelor of Engineering (Civil, Environmental, Materials, Mechanical, Mechatronics, Mining) – Bachelor of Computer Science

Refer to the Faculty of Engineering section for details of this double degree program.

Bachelor of Engineering (Civil, Environmental, Materials, Mechanical, Mechatronics, Mining) – Bachelor of Mathematics

Refer to the Faculty of Engineering section for details of this double degree program.

Bachelor of Information and Communication Technology – Bachelor of Laws

Refer to the Faculty of Law section for details of this double degree program.

Bachelor of Mathematics - Bachelor of Computer Science

Testamur Title of Degree:	Bachelor of Mathematics (name of major) Bachelor of Computer Science (name of major)
Abbreviation:	BMath, BCompSc
Home Faculty:	Informatics
Duration:	4 years or part-time equivalent
Total Credit Points:	216
Delivery Mode:	Face-to-face
Starting Session(s):	Autumn
Standard Course Fee:	HECS (local); International \$8,900 per session
Location:	Wollongong
UOW Course Code:	769
UAC Code:	751701
CRICOS Code:	016108A

Overview

Please refer to the entries for the Bachelor of Mathematics and the Bachelor of Computer Science.

Entry Requirements / Assumed Knowledge

Please refer to the entry requirements/assumed knowledge for the Bachelor of Mathematics and the Bachelor of Computer Science.

Advanced Standing

Information about Approved Credit Transfer Arrangements with domestic providers is available at:
<http://www.uow.edu.au/handbook/advancedstanding/>

Information about Approved Credit Transfer Arrangements with international providers is available at:
<http://www.uow.edu.au/discover/international/COURSES/courseset.html#advanced>

Course Requirements

To qualify for the award of the double degree of Bachelor of Mathematics - Bachelor of Computer Science, a candidate must satisfactorily complete at least 216 credit points from the Computer Science Schedule, the Mathematics Schedule and the General Schedule, and, in so doing, satisfy the requirements of Course Rules 108 and 107 for the Bachelor of Mathematics and the Bachelor of Computer Science, respectively.

Minimum Performance Requirement

Candidates must maintain a weighted average mark (WAM) of at least 65 at the end of each year, otherwise they must show cause as to why they should be permitted to remain registered for the two courses.

Candidates who, at the end of any year of registration, have satisfied the minimum rate of progress requirements under General Course Rule 8.8, but who do not have a WAM of at least 65 and who have not given adequate reason as to why they should be permitted to continue with registration for the joint course, will be required to transfer into either a Bachelor of Mathematics or a Bachelor of Computer Science.

Course Program

The following program of study is recommended to satisfy the requirements in minimum time.

Subjects	Session	Credit Points	
Year 1			
CSCI103	Algorithms and Problem Solving	Autumn	6
CSCI114	Procedural Programming	Autumn	6
CSCI124	Object Programming	Spring	6
MATH187	Mathematics 1A Part 1	Autumn	6
MATH188	Mathematics 1A Part 2	Spring	6
MATH111	Applied Mathematical Modelling 1	Spring	6
MATH121	Discrete Mathematics	Autumn	6
STAT131	Understanding Variations and Uncertainty	Autumn/ Spring	6

Year 2

CSCI102	Systems	Autumn	6
CSCI203	Algorithms and Data Structures	Autumn	6
CSCI204	The C Family and Unix	Spring	6
CSCI212	Interacting Systems	Autumn	6
IACT201#	Information Technology and Citizens' Rights	Autumn	6
MATH201	Multivariate and Vector Calculus	Autumn	6
MATH202	Differential Equations 2	Autumn	6
Plus any two of			
MATH212	Applied Mathematical Modelling 2	Spring	6
MATH222	Continuous and Finite Mathematics	Autumn	6
STAT231	Probability and Random Variables	Autumn	6
STAT232	Estimation and Hypothesis Testing	Spring	6
Plus any 6 credit point 200-level CSCI subject			

May be taken in year 3, in lieu of 6 credit points of 200- or 300-level subjects, and replaced in year 2 by 6 credit points of 100- or 200-level subjects.

Year 3

MATH203	Linear Algebra	Autumn	6
MATH204	Complex Variables and Group Theory	Spring	6
CSCI222	Systems Development	N/A in 2004	6

Plus any 12 credit points of 300-level Mathematics subjects,

Plus any 6 credit points 200-level Computer Science subjects,

Plus any 12 credit points 300-level Computer Science subjects,

Plus any 12 credit point of 200- or 300-level General Schedule subjects.

Year 4

CSCI321	Project	Annual	12
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Plus 24 credit points of 300-level Mathematics subjects.

Plus 12 credit points of 300 level Computer Science subjects.

Major Study Areas

Please refer to the entries for the Bachelor of Mathematics and the Bachelor of Computer Science.

Honours

Candidates may apply to register for either, or consecutively, both the Bachelor of Mathematics (Honours) or the Bachelor of Computer Science (Honours) after the satisfactory completion of the double degree program.

Professional Recognition

The Bachelor of Computer Science has recently been revised, therefore re-accreditation by the Australian Computer Society as meeting requirements for membership at a "Professional level" is currently being sought.

Bachelor of Mathematics – Bachelor of Laws

Refer to the Faculty of Law section for details of this double degree program.

Bachelor of Science - Bachelor of Mathematics

Refer to the Faculties of Science and Engineering sections for details of this double degree program.