Faculties and their Departments

Faculty of Arts

The Faculty of Arts stands at the heart of the traditional conception of a university as a place for the discovery, preservation and transmission of knowledge about human life and experience. It is also a cultural environment constantly acting as a seed-bed for the germination of new forms of knowledge, new ways of making connections between specialist branches of knowledge, new ways of interpreting the world.

In the Faculty of Arts at Macquarie you will find opportunity to explore the study of:

- languages, English and non-English, modern and ancient;
- literature, media and forms of communication;
- history, cultural studies, indigenous studies and women's studies;
- political and social sciences;
- philosophy;
- music, drama and performing arts.

The Faculty is also the organisational home of the Macquarie Law School.

The Faculty is home to, or participates in the presentation of, a variety of undergraduate and postgraduate programs. These include the Bachelor of Arts; the Bachelor of Social Science; Bachelor degree programs in International Studies, Creative Arts, Media, International Communication, Community Management; and a range of Masters degree programs. The Departments of the Faculty also offer supervision of students for Higher Degrees by Research.

Students enrolling in the undergraduate programs of the Faculty have the opportunity to choose their program of study from a wide range of discipline areas. The range of choice allows students to engage in a variety of patterns of study (discipline-focussed, interdisciplinary, combined-degree-linked) according to need and career aspiration. Each area and each pattern of study gives training not only in the specialist knowledge and skills of the discipline but also in the development of a wider range of competences, including critical thinking, effective communication, and the cultural awareness necessary to become an informed global and local citizen.

The Departments within the Faculty are:

Department of Ancient History
Department of Anthropology
Department of English
Department of Indigenous Studies—Warawara
Department of International Studies
Department of Media, Music and Cultural Studies
Department of Modern History and Politics
Department of Philosophy
Department of Sociology
Macquarie Law School

Degrees offered

The following awards are offered by this Faculty and its departments:

Bachelor of Ancient History (Hons)
Bachelor of Arts
Bachelor of Arts – Psychology
Bachelor of Arts with Bachelor of Theology
Bachelor of Creative Arts
Bachelor of Creative Arts (International)
Bachelor of Community Management
Bachelor of International Communication
Bachelor of International Studies
Bachelor of Media
Bachelor of Science
Bachelor of Science – Psychology
Bachelor of Social Science
Certificate of Ancient Languages
Certificate in Languages
Diploma in Ancient Languages
Diploma in Languages
Graduate Diploma in Anthropology
Graduate Diploma in Philosophy
Graduate Diploma in Women's Studies
Graduate Certificate in Critical and Cultural Studies

In addition, Macquarie Law School offers a number of full-time combined law programs, as well as the Bachelor of Laws by distance education for mature age students. For full details see under Macquarie Law School below.

Transfer between courses

Any student wishing to change to another degree must meet the requirements set out in Part 1 of this Handbook, and a *Request to Transfer Degree Course* form must be completed.

Degrees, programs and units

Degree descriptions are provided below in the entry for the relevant department. Approved programs of undergraduate study are listed in the Schedule of Programs of Study in Part 3 of this Handbook. The units of undergraduate study are listed in the Schedule of Undergraduate Units, and brief descriptions are given in the section entitled Descriptions of Undergraduate Units.

Faculty of Arts enquiries

Room:	W6A 140 Ground Floor Information Desk
Phone:	+61 2 9850 6801
Fax:	+61 2 9850 8240
Email:	arts@mq.edu.au
Web:	www.mq.edu.au/arts

Areas of study

Programs in the following areas of study are offered by departments in the Faculty of Arts.

Area of Study	Award	Department
Ancient History	BA	Ancient History
	BAncHist (Hons)	Ancient History
	CertAncLang	Ancient History
	DipAncLang	Ancient History
Anthropology	BA	Anthropology
	BSocSc	Anthropology
	GDipAnth	Anthropology
Arabic	CertLang	International Studies
Asian Languages	BA	International Studies
	CertLang	International Studies
	DipLang	International Studies
Australian Studies	BA	English; Modern History and Politics
Creative Arts	BCA	Media, Music and Cultural Studies
	BCA (International)	Media, Music and Cultural Studies
Cultural Studies	BA	Media, Music and Cultural Studies
	GradCertCritCul	Media, Music and Cultural Studies
Dance	BA	Media, Music and Cultural Studies
Development Studies	BA	Anthropology
English	BA	English
European Languages	BA	International Studies
	CertLang	International Studies
	DipLang	International Studies
History	BA	Ancient History; Modern History and Politics
Indigenous Community Management	BCM	Indigenous Studies
Indigenous Studies	BA	Indigenous Studies
	BSocSc	Indigenous Studies
International Studies	BIntStud	International Studies
	BSocSc	International Studies
Media Studies	BIntCom	Media, Music and Cultural Studies
	BMedia	Media, Music and Cultural Studies
Modern History	BA	Modern History and Politics
	BSocSc	Modern History and Politics
Music	BA	Media, Music and Cultural Studies
Philosophy	BA	Philosophy
	BSocSc	Philosophy
	GDipPhil	Philosophy
Politics	BA	Modern History and Politics
	BSocSc	Modern History and Politics
Sociology	BA	Media, Music and Cultural Studies; Sociology
	BSocSc	Sociology
Women's Studies	BA	Faculty of Arts
	BSocSc	Faculty of Arts
	GDipWSt	Faculty of Arts

The Faculty of Arts also offers combined law degree programs in a range of Areas of Study. For more information see the entry for Macquarie Law School within this Part of this Handbook.

Interdisciplinary Studies

Australian studies

The University offers a multi-disciplinary program in Australian studies which enables students to take major studies in such areas as Australian history, literature, environmental history, gender relations and politics.

The required units are AUST100 Australian Perspectives I: Maps, Dreams, History, AUST200 Australian Perspectives: Representing Place, Nation and Identity and AUST300 Australian Perspectives III: Envisioning Australia. The units are intended to form a central sequence which integrates a program of study for the Bachelor of Arts degree, drawn from several Departments of the University.

Students interested in studying in this area should refer to details of units offered by the various Departments by consulting the Descriptions of Undergraduate Units in Part 3 of this Handbook. Students seeking further advice should consult the Departments offering the units or email austuds@mq.edu.au.

Combinations of some of the following units would provide students who do not wish to take the full program with a strong background in Australian studies.

The following units contain a substantial or wholly Australian component:

AUST200; ENGL270; ENGL286; ENGL361; ENGL38; HIST109; HIST217; HIST245; HIST271; HIST340; HIST371

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Australian Studies	Australian Studies	AUS01

Medieval studies

Several units are offered in the area of medieval studies. For students who are interested in undertaking interdisciplinary work on the Western Middle Ages (c 400–1500 AD), and who can show evidence of capacity for it, consideration will be given to waiving prerequisites and corequisites for certain units, at the discretion of the Executive Dean of Faculty concerned. It is essential that students wishing to avail themselves of this opportunity discuss the matter with the staff member responsible for the unit before applying for waiver of prerequisites and corequisites. Units on, or including, aspects of Medieval Studies include: AHST104; AHST233; AHST333; AHST234; AHST334; AHST235; AHST335; ENGL288 ENGL367; ITL308. In addition, the Latin program of the Department of Ancient History can include medieval Latin to reflect students' interests. For details of the program contact the Department of Ancient History on +61 2 9850 8833. Further details of the units of study are available in the Descriptions of Undergraduate Units in this Handbook. Information on medieval studies can be obtained from Associate Professor Marea Mitchell on +61 2 9850 8754.

Bachelor of Social Science

The degree of Bachelor of Social Science (BSocSc) is an interdisciplinary degree that requires three years of full-time study or the equivalent part-time study. The flexible structure of the BSocSc allows students to develop programs made up of units selected from a wide range of social sciences and also to include other fields of study provided the minimum requirements of the degree are met. The fields of study in which students may complete a coherent study for the BSocSc include anthropology, demography, human geography, linguistics, politics and sociology. A limited number of units in the following discipline-based coherent studies are also designated as 'social science': law, philosophy and psychology.

To qualify for the BSocSc, a student must complete a total of at least 68 credit points, 38 of which must be at 200 level or above. At least 18 of these must be at 300 level in units designated as social science units. The 18 credit points at 300 level must also include a coherent study in Social Science (that is 12 credit points at 300 level) in a coherency approved for this degree. More detailed information can be sought from the relevant discipline. A number of cross disciplinary coherencies are also available. The units SOC234 and SOC300 are common units that must be completed by all students.

It is strongly recommended that the degree program includes at least 15 credit points at 100 level in social science units spread across a range of subject areas.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Discipline based

Area of Study	Coherency	Code
Anthropology	Anthropology	ANT05
Demography	Demography	DEM09
Human Geography	Human Geography	HGE15
	Urban and Regional Management	HGE19
International Studies	Asian Studies	INS01
Linguistics	Linguistics & Intercultural Communication	LNG16
	Linguistics & Policy	LNG17
	Linguistics & Social Psychology	LNG18
	Sociolinguistics	LNG19
Modern History	Modern History	MDH04
Philosophy	Social Philosophy	PHL03
Politics	Politics	PLT04
Psychology	Social/Developmental Psychology	PSY02
Sociology	Sociology	SOC09

Interdisciplinary studies

Area of Study	Coherency	Code
Indigenous Studies	Indigenous Studies	ABR06
	Indigenous Studies and Anthropology/Sociology	ABR07
	Indigenous Studies and History/Politics	ABR08
Population Studies	Population Studies	PPL13
	Population Studies	PPL11
	Population Studies – Social	PPL14
Women's Studies	Women's Studies, Gender and Sexuality	WST06

Please note: students enrolled in the BSocSc in previous years must ensure that they have satisfied the degree requirements that applied in the year of their enrolment.

Honours program

The Honours Degree of Bachelor of Social Science normally requires one year of full-time study or two years of part-time day or evening study. It is not available by distance education. Students must have qualified for the BSocSc before being admitted to the program, and must have completed satisfactorily a program of study prescribed by the Director of the BSocSc in consultation with the discipline (or disciplines) in which they desire to undertake the honours program. Disciplines in which an Honours Degree in Social Science is available are: anthropology, demography, human geography, modern history, politics and sociology. Admission to the honours program is subject to approval after a consideration of the student's level of performance in the program for the BSocSc. To be eligible for selection to an honours program a candidate must have obtained an overall GPA of at least 2.5; and achieved the required 300-level GPA of 3.0 determined by Academic Senate on the recommendation of the Faculty concerned in relation to honours programs offered by anthropology, demography, modern history, politics and sociology or the 2.5 GPA determined by the Academic Senate on the recommendation of the Faculty concerned in relation to the honours program offered by human geography.

Bachelor of Social Science with Bachelor of Laws

Students can enrol in a combined law degree which includes the social science degree. For more information on this degree see the entry for Macquarie Law School in this Part of this Handbook.

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Social Science	Social Science and Law	LAW19

Bachelor of Social Science enquiries

Contact: Dr Pal Nyiri
Room C3A 629
Phone +61 2 9850 8121
Fax +61 2 9850 8610
Email pal.nyiri@mq.edu.au
Website www.scmp.mq.edu.au/bsocsci

Bachelor of Arts with Bachelor of Theology

Macquarie University and the Australian College of Theology offer suitable candidates the opportunity of pursuing Bachelor of Arts and Bachelor of Theology degrees at the same time through an integrated program of studies.

The combined degree is a five-year program. The advantages of this combined degree program include the ability to integrate issues common to several Arts and Theological disciplines, to provide a channel of interaction between the University and theological education, and to lay a broader academic foundation for the study of theological and pastoral issues. Upon the successful completion of this combined degree program the candidate will be awarded the Bachelor of Arts by Macquarie University and the Bachelor of Theology by the Australian College of Theology.

Students may combine any of the disciplines offered at Macquarie University with the theological study from the Australian College of Theology. An obvious complementary program would involve study in the Departments of Ancient History and Australian College of Theology, but other areas are available.

Students who do not wish to complete the Bachelor of Theology may still count units from the Australian College of Theology toward their Bachelor of Arts degree.

Bachelor of Science with Bachelor of Arts

The Bachelor of Science with Bachelor of Arts requirements include completion of a coherent study in Ancient History, Anthropology, Australian History, Cultural Studies, Human Geography, Indigenous Studies or Modern History. Full details are available under the entry for the Faculty of Science in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Museum Studies	Natural History, Cultural & Museum Studies	MST01

Department of Ancient History

The Department of Ancient History offers over 50 units for study at undergraduate level and covers the antecedents of western civilisation in ancient Egypt, Israel and the Graeco-Roman world. Greek history is studied from Homer to the Hellenistic cultures under the Roman empire (including Judaism and early Christianity) and Roman history from the Republic to the Late Empire and the Byzantine period beyond to the Silk Road. Egyptian history is taught from the Predynastic period up to that of the Ramesside period. Egypt's later Coptic history merges with the Greek and Roman streams.

Bachelor of Arts

The study program for the degree of Bachelor of Arts consists of three years of full-time study or the equivalent part-time study. Students may choose ancient history units for their coherent study program or choose ancient history units as elective options.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Ancient History	History	ANC01
	Ancient History	ANC02
History	History	HST01

Honours program

Students with a coherent study in ancient history with a credit average or higher are invited to join the Ancient History Honours program. The program may be completed in one year of full-time study or two years of part-time study. Students may enrol either at the beginning of the year or mid-year. Applications should be made via the University's Student Enquiry Service before 31 October or 31 May, depending on the starting date.

Ancient History Honours is intended to help equip students for a variety of careers and qualify them as creative persons developing the capacity for independent and critical thought. The program also provides an initiation into the profession and a preliminary to postgraduate work. The Honours course consists of one unit in history and theory, two seminar units, and a thesis of 15,000-20,000 words.

For further information about the program please contact the Department of Ancient History office.

Bachelor of Ancient History (Honours)

The study program for the Honours degree of Bachelor of Ancient History consists of four years of full-time study or the equivalent part-time study. Students will need to achieve a sufficiently high UAI to qualify for this program. Transfer into the program is possible at a later point of entry.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Ancient History	Ancient History	ANCH03

Certificate in Ancient Languages, Diploma in Ancient Languages

Students wishing to study ancient languages without necessarily completing a major are able to enrol in either of two undergraduate awards: Diploma in Ancient Languages, which is open to students eligible for admission to a degree program at Macquarie University or another approved institution; and the Certificate in Ancient Languages for which no admission criteria are specified. Both awards are HECS-based. Transfer is possible from the Certificate to the Diploma, and from the Diploma to a Bachelor Degree. The languages offered are Ancient Greek, Latin, Egyptian Hieroglyphs, Classical Hebrew and Coptic.

Majors and coherent studies

The following programs satisfy the requirements for this award.

Area of Study	Study Pattern	Code
Ancient Languages	Ancient Languages–Certificate	ANCH04
	Ancient Languages–Diploma	ANCH01

Academic advice

100 level

At 100 level, units cater for the interests of students in other fields (such as literature, philosophy, and the social sciences), as well as providing a foundation for future work in any field of history. The use of the ancient authors and other primary source material including archaeological is especially stressed. Students may proceed to some 200-level ancient history units from 6 credit points in history (ancient or modern).

200 and 300 level

At 200 and 300 level, units are offered as set out below, some units may be taken at either 200 or 300 level:

Ancient Languages*

AHST205; AHST206; AHST207; AHST208; AHST241; AHST242; AHST260; AHST280; AHST281; AHST360; AHST380; AHST381

*Students may take the ancient languages as part of their Bachelor of Arts program, or they may choose to take out separately a Certificate or Diploma in Ancient Languages. Please refer to ANCH04 and ANCH01.

Egyptology

AHST261; AHST361; AHST362; AHST363; AHST364

Archaeology

AHST210; AHST310; AHST236; AHST336; AHST380; AHST381

Greek History and Society

AHST221; AHST222; AHST274; AHST321; AHST322; AHST374; AHMG101; AHMG201

Roman History

AHST231; AHST232; AHST250; AHST331; AHST332; AHST350

Late Antiquity

AHST233; AHST234; AHST235; AHST252; AHST333; AHST334; AHST335; AHST352; AHST375

Israel and Early Christianity

AHST209; AHST239; AHST240; AHST251; AHST309; AHST340; AHST351

Special Interest (including Coptic)

AHST270; AHST271; AHST272; AHST280; AHST281; AHST370; AHST371; AHST372; AHST380; AHST381; AHST382; AHST383

Units offered externally (some online):

AHMG101; AHMG201; AHST101; AHST102; AHST103; AHST205; AHST206; AHST207; AHST208; AHST209; AHST222; AHST233; AHST234; AHST235; AHST240; AHST250; AHST251; AHST252; AHST272; AHST280; AHST309; AHST322; AHST333; AHST334; AHST335; AHST340; AHST350; AHST351; AHST352; AHST361; AHST372; AHST380 (some topics only); AHST383

Students preparing for 300-level units are strongly urged to consider the advantage of including in their program at 200 level at least one of the ancient language units AHST205, AHST206, AHST207, AHST208, AHST241, AHST260. Students planning to take AHST310 Archaeological Fieldwork, which requires prior or concurrent completion of certain units, must consult the Department during their first year of study.

Students planning to submit a thesis in ancient history in the honours course should consider completing one of the ancient language units; this is a necessary preliminary to writing a higher-degree research thesis in ancient history. For further information on the honours program please contact the Department of Ancient History office.

Note that not all units are available in any one academic year. It is advisable to consult the Schedule of Undergraduate Units in this Part 3 of this Handbook. An information booklet on Ancient History is available from the Department.

Department of Ancient History enquiries

Room: W6A 540
Phone: +61 2 9850 8833
Fax: +61 2 9850 8240
Email: ancienthistory@mq.edu.au
Website: www.anchist.mq.edu.au

Department of Anthropology

Anthropology is the comparative study of societies and cultures. It asks questions about behaviour, meaning and value between differing societies and cultures. Why do people do what they do? Why do people in different societies do different things? Why do people in the same society do different things? Anthropologists study groups of people and artefacts which constitute different ways of life. They might, for example, study workers in the shop-floor of a factory, farmers in Western Queensland, Central Desert Aboriginal rock 'n' roll bands, or Albanian refugees in detention centres.

Anthropology is important for anyone working in areas of cross-cultural significance, for example in teaching, the medical professions, welfare work, counselling, law and the media. People who seek careers in anthropology first take an honours degree, and then go on to a substantial piece of research in Australia or overseas.

Although most anthropological research has in the past been concerned with small-scale societies, attention is increasingly focused on the emerging globalised world and the complex interactions now evident as societies and cultures of all kinds are thrown into novel interconnections.

Anthropologists are employed as university teachers, in museums and other cultural and conservation bodies, as research officers in organisations such as the Northern Land Council and Central Land Council, by Commonwealth and State Departments of Health, Ethnic Affairs and Aboriginal Affairs, by the Australian Development Assistance Bureau and as advisers in a wide range of programs in Third World countries. Some anthropologists are established as independent consultants, working on a variety of programs for government and private industry.

Distance education program

Students may enrol externally in ANTH106 Drugs Across Cultures.

Bachelor of Arts

The degree of Bachelor of Arts has a flexible structure which allows students to develop programs made up of units selected from a wide range in the Social Sciences and Humanities.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency/Study Pattern	Code
Anthropology	Anthropology	ANT01
	Anthropology, Psychology and Sociology	ANT02
Development Studies	Development Studies	DEVS01

Theoretical Studies

ANTH276; ANTH381; ANTH373

Anthropology of Health and Medicine

ANTH106; ANTH274; ANTH377

Anthropology of Power and Politics

ANTH275; ANTH272; ANTH361; ANTH373; ANTH380; ANTH387

Applied Anthropology and Development Studies

ANTH275; ANTH272; ANTH380; ANTH385

Cultural Anthropology

ANTH276; ANTH277; ANTH272; ANTH278; ANTH360; ANTH365; ANTH375; ANTH381

Performance/Aesthetics Studies

ANTH276; ANTH277; ANTH279; ANTH381; ANTH384

Local Knowledge and Ethnography

ANTH360; ANTH375; ANTH384; ANTH385

Academic advice

Students are advised to consult with staff members during the enrolment period concerning their programs of study.

Honours program

Students with a strong undergraduate record are encouraged to undertake the honours degree. The program may be completed in one year of full-time study or two years of part-time study. Students seeking to undertake honours should have obtained 24 credit points in anthropology with an overall 'B' (High Credit and above) grade average. Students who do not fully meet these requirements may in some cases also be given entry, particularly if their 300-level results are strong and if their records include 'B' results or better in units in related disciplines.

Honours candidates are assessed on the basis of a supervised research paper of approximately 20,000 words, which counts for 80% of the final result, together with an essay of approximately 8,000 words generally on a theoretical topic, counting for the remaining 20%. They are also required to participate in a weekly seminar and to attend anthropology colloquia. Students intending to enrol in honours should consult a staff member well in advance of their honours application, to ensure that supervision will be available in the area of their interest. Such requests should in the first instance be addressed to the Honours Convenor.

Students applying to enter the Honours program from other universities must contact the Honours Convenor well in advance of submitting their applications in order to receive advice as to requirements and supervision.

A document setting out requirements for honours in Anthropology is available from the Department of Anthropology office.

Bachelor of Social Science

The Bachelor of Social Science can be completed with coherent study in Anthropology. For more details see the entry for interdisciplinary studies within the Faculty of Arts in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Anthropology	Anthropology	ANT05

Graduate Diploma in Anthropology

The Graduate Diploma in Anthropology is offered for those who already have an undergraduate degree, but who are interested in an intensive course composed entirely of anthropology units. This course is also intended for those who wish to enrol in the Master of Anthropology, but who do not have sufficient undergraduate anthropology units to qualify them for admission into the program. Entry is available to students with a Bachelor of Arts or Bachelor of Social Science degree with a concentration in one or more of the following areas of study: sociology, welfare studies, social work, media and cultural studies, politics, philosophy, and human geography; or by permission of the Executive Dean of Faculty. The Diploma is undertaken over one year of full-time study or two years of part-time study, during which students must successfully complete a minimum of 23 credit points in ANTH units.

Majors and coherent studies

The following program satisfies the requirements for this award.

Area of Study	Study Pattern	Code
Anthropology	Anthropology	ANTH05

Department of Anthropology enquiries

Room: C3A 607
Phone: +61 2 9850 8077
Fax: +61 2 9850 9391
Email: anthropology@mq.edu.au
Website: www.anth.mq.edu.au

Department of English

The Department of English offers a broad range of units, including most periods of English, Australian writing and post-colonial literature, drama, literary theory, and creative writing. Students from all Departments of the University are welcome to take some English units as elective units in their program of study. English units may be taken as part of many degrees, such as the Bachelor of Arts, Bachelor of Media or Bachelor of Creative Arts.

Students who plan to major in English generally complement their studies in English with other units from the Faculty of Arts, but students with broad interests can combine their studies in English with units from areas as diverse as philosophy, ecology or human geography.

The Department contributes in various ways to the University's program in creative arts (for information on the creative arts program, see the entry for the Department of Media, Music and Cultural Studies). Students with interests in this area may combine ENGL units with units from other departments such as the Department of Media, Music and Cultural Studies, which offers two practical drama units. Study of drama texts can also be undertaken in many ENGL units, especially those on Modern Drama and Shakespeare and the Renaissance. A major in creative writing is available as a subset of the English literature coherency ENG01.

[Please note that CAPP100 Communication for Academic and Professional Purposes 100, which is for students whose first language is not English, is taught by the Department of Linguistics, not by the Department of English.]

Bachelor of Arts

The program for the Bachelor of Arts consists of three years of full-time study or equivalent part-time study.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
English	English Literature	ENG01
	English and Cultural Studies	ENG02
	Australian Studies	ENG05
	Performance Drama	ENG07
	English Interdisciplinary	ENG08

Distance education program

The units ENGL106, ENGL107, ENGL120, ENGL218, ENGL264, ENGL270, ENGL271, ENGL286, ENGL317, ENGL319, ENGL361, ENGL367, ENGL386 are offered in distance mode.

Academic advice

Generally speaking, all students who intend to take the Department's 200- or 300-level units should enrol in the foundation unit ENGL120 Approaches to English Literature. If you intend to major in English, you are advised to take a second 100 level unit, although only ENGL120 is compulsory. Students planning to major in English Language and Literature should combine these two units with LING109 and LING110. Students wishing to major in drama should take ENGL120 with either CUL100 or ECHL111; ENGL106 is optional. Students who wish to major in creative writing should take ENGL120 and CUL100; ENGL106 is optional. Students who intend to be a primary teacher or secondary teacher of English and wish to satisfy NSW Department of Education and Training requirements should carefully consult the *Teacher Education Program Student Guide* available from the Macquarie University Department of Education.

Normally students majoring in English in a full-time program would take at least 8 credit points from ENGL211-ENGL299 in their second year and at least 12 credit points from ENGL300-ENGL386 in their third year.

Honours program

The requirements for the English honours program are a minimum of 24 credit points in English units above 100 level, including at least 12 points at 300 level, and at least 8 credit points in 300-level ENGL units. All candidates will take ENGL431 Literary Theory; two other 400-level ENGL units; ENGL461 Short Thesis (12,000-15,000 words) on a topic in English; and a research skills and thesis workshop.

Please contact the Department of English for unit availability.

Department of English enquiries

Room: W6A 641
Phone: +61 2 9850 8739
Fax: +61 2 9850 6593
Email: frances.thompson@mq.edu.au
Website: www.engl.mq.edu.au

Department of Indigenous Studies—Warawara

Indigenous studies at Macquarie University is an interdisciplinary program of units that focuses upon the idea of 'indigenous', both at the national and international levels. Students who wish to specialise in indigenous studies within the Bachelor of Arts or the Bachelor of Social Science, or include indigenous studies units as a minor part of their degree program, should refer to the information below.

Interdisciplinary studies

Indigenous studies, as part of an interdisciplinary program, focuses on the interaction between the Indigenous/non-Indigenous domains. The Department of Indigenous Studies, offers about half of the core Indigenous studies units (units with an ABST prefix). Other Indigenous studies units are taught by staff in various disciplines within other departments: Anthropology, Biological Sciences, History and Law.

Students interested in Indigenous studies should include within their program the core units offered by the Department (ABST100, ABST200, ABST210, ABST300 and ABST310). If they wish to specialise in the field, they should also include within their program additional Indigenous studies units at 200 level and 300 level (see Degrees offered, below). It is also possible for students to specialise in Indigenous studies as well in their primary discipline (e.g. human geography, history, etc).

Students who do not intend to specialise in the area may wish to include Indigenous studies as a minor part of their academic program. They can do so by selecting from the units listed below:

- Units with a primary focus upon Indigenous Australia:
  ABST100; ABST200; ABST210; ABST300; ABST310; ABST320; ANTH384; EDUC358; GEOS321; LAW418
- Units without a primary focus upon Indigenous Australia but with material relevant to an Australian Indigenous Studies program:
  ANTH150; ANTH365; AUST200; CUL201; CUL301; ENGL361; GEOS328; HIST340; LAW412; SOC175; SOC180; SOC390

It is important to check the Schedule of Undergraduate Units in this Handbook to determine the availability and prerequisites for these units. For advice on developing a coherent course of study, contact the Department of Indigenous Studies.

Coherent study in two study areas

The following patterns suggest sequences of units in Indigenous studies that would be useful for students pursuing a coherent study in Indigenous studies alongside their primary discipline.

Combination with Anthropology or Sociology

100 level

ABST100; ANTH150; ANTH106; SOC175; SOC180

200 level

ABST200; ABST210

300 level

ABST300; ABST310; ANTH384; SOC390

plus one of the following:

EDUC358; GEOS321; LAW418

Combination with History

100 level

ABST100; HIST109

200 level

ABST200; ABST210; HIST245

300 level

Two of the following:

ABST300; ABST310; ANTH384; EDUC358; GEOS321; LAW418

Combination with Politics

100 level

ABST100; POL165

200 level

ABST200; ABST210

300 level

Two of the following:

ABST300; ABST310; ANTH384; EDUC358; GEOS321; LAW418

Combination with Biology/Environmental Studies

100 level

ABST100; BIOL114

200 level

ABST200; BIOL227

300 level

GEOS321

plus two of the following:

ABST300; ABST310; ANTH384; EDUC358; LAW418

Degrees offered

Coherent studies ABR01 and ABR05 are approved for the Bachelor of Arts. Coherent studies ABR06, ABR07 and ABR08 are approved for the Bachelor of Social Science. Coherent study CMMG01 is approved for the Bachelor of Community Management.

Majors and coherent studies

The following programs satisfy the requirements for the above degrees.

Area of Study	Coherency/Study Pattern	Code
Indigenous Community Management	Community Management	CMMG01
Indigenous Studies	Indigenous Studies	ABR01
	Indigenous Studies	ABR05
	Indigenous Studies	ABR06
	Indigenous Studies & Anthropology/Sociology	ABR07
	Indigenous Studies & History/Politics	ABR08

In addition, requirements for the Bachelor of Science with Bachelor of Arts include the option to complete a coherent study in Indigenous studies. Full details are available under the entry for the Faculty of Science in this Part of this Handbook.

Entry requirements

Candidates who wish to take 200-level units, but who have not satisfied the appropriate prerequisites may be considered for admission provided that they have gained at least 18 credit points towards their degree.

Academic advice

Students intending to major in Indigenous studies are advised to consult with staff members concerning their programs of study. A staff member will be available for consultation during the enrolment period.

Honours program

To be eligible for entry into the honours program, students must have satisfactory completion of 18 credit points at 300 level in the interdisciplinary coherency in Indigenous studies; or an equivalent program acceptable to the Indigenous studies honours committee; and a GPA of at least 3.0 in Indigenous studies units and a GPA of at least 2.5 overall.

Students requiring advice on the planning of a coherent Indigenous studies program or who need general advice should contact Dr Kristina Everett on +61 2 9850 9916.

Indigenous Australian students

Warawara also coordinates a number of programs specifically for Indigenous Australian students: Advanced Diploma/Diploma in Community Management and the Bachelor of Teaching (Early Childhood Education). For more information contact Warawara on +61 2 9850 8036.

Department of Indigenous Studies—Warawara enquiries

Room: W3A 307
Phone: +61 2 9850 8893 / 1800 066 465
Fax: +61 2 9850 7735
Email: warawaraadmin@scmp.mq.edu.au
Website: www.warawara.mq.edu.au

Department of International Studies

The Department of International Studies offers the Bachelor of International Studies and degree programs in Asian studies (Arabic, Chinese and Japanese) and European languages and cultures. The aim is to develop proficiency in these languages and to provide an understanding of the society and culture of the countries where the languages are spoken. Modern language teaching methodology and technology are used, and there is a strong emphasis on communication skills. Overseas study is strongly encouraged and students can participate in residential units and traineeships. The University provides travel grants for overseas study on a competitive basis.

All of the programs offered contain core language units and a number of options. There are also non-language units on aspects of society and culture available to students of all disciplines.

Bachelor of International Studies

The Bachelor of International Studies is designed to play an important role in the development of Australian students with an international outlook. The degree is offered as a three-year full-time program or its equivalent for part-time students and has compulsory language and culture component, a compulsory semester at an university overseas and a focused internship linked to the language and culture of study. The Global Leadership Program is a natural complement to this degree and is strongly promoted to the cohort.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Study Pattern	Code
International Studies	Asian Language–Beginners	ASNS01
	Japanese–Advanced	ASNS02
	Chinese–Background Speakers	ASNS03
	English Language and Literature	ENGS01
	European Language–Beginners	EURS01
	European Language–Post HSC	EURS02

Bachelor of International Studies with Bachelor of Laws

Students can enrol in a combined law degree which includes the international studies degree. For more information on this degree see the entry for Macquarie Law School in this Part of this Handbook.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Study Pattern	Code
International Studies	Asian Language–Beginners & Law	ASNS05
	Japanese–Advanced & Law	ASNS06
	European Language–Beginners & Law	EURS05
	European Language–Post HSC & Law	EURS06

Asian Studies

Bachelor of Arts

The Asian studies programs place emphasis on the acquisition of practical communication skills and many of the units are designed to achieve a higher level of language skills. A variety of units in literature, culture, history and media studies are also offered to be studied together with language units.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Asian Languages	Chinese	LGA01
	Japanese A	LGA02
	Japanese B/C	LGA03

Bachelor of Arts with Honours

Chinese programs

The Honours year of a Bachelor of Arts with Honours in Chinese concentrates on research training and advanced language study. Students will be required to present a thesis of approximately 10,000 words (in English) on a subject covered in the language, literature and cultural units offered in the Department, within the range of specialisation of the staff. They will do a substantial translation project related to the thesis topic (about 25 pages of Chinese text) and present a seminar on their research. Research guidance with a supervisor will be on the basis of one hour per week during the academic year.

Japanese programs

Students who intend to proceed to an Honours degree in Japanese will normally be expected to have completed the three-year course with a major in Japanese studies.

The Honours course consists of four parts: a thesis (50%), language studies (20%), research seminar (15%) and one component (15%) selected from Japanese history, politics, sociology, religion, media, literature, manga and anime, and interdisciplinary studies.

The subject of the thesis will be determined according to the particular interests of the student after consultation with Japanese staff.

Certificate in Languages, Diploma in Languages

Majors and coherent studies

A Certificate in Languages and a Diploma in Languages are offered in all European languages, starting at introductory, or at intermediate level. Both are HELP-based awards and can be completed together with a degree, or as stand-alone programs. Transfer is possible between Certificate and Diploma, and between Diploma and Degree programs. Interested students should contact the Department for further information.

Area of Study	Study Pattern	Code
Arabic	Arabic–Certificate	ARAB05
Asian Languages	Chinese–Diploma	CHNS02
	Chinese–Certificate	CHNS01
	Japanese–Diploma	JPNS01
	Japanese–Certificate	JPNS02

Academic advice

Chinese programs

Many Chinese units require the permission of the Executive Dean of Faculty. This means that your enrolment will have to be approved by a member of the Chinese staff, who will be available during the enrolment period for this purpose.

In the first year beginners should enrol in CHN104 Introductory Chinese I and CHN148 Basic Spoken Chinese I in the first semester. CHN104 concentrates on the written language, and CHN148 on spoken Mandarin. In the second semester students should enrol in CHN105 Introductory Chinese II and CHN149 Basic Spoken Chinese II. These courses are for people who know no Chinese at all, or very little. Such students are also welcome to enrol in CHN112 Chinese Calligraphy.

Students who pass Introductory Chinese in their first year may enrol in Intermediate Chinese in their second year and Advanced Chinese in their third year. These units are for students whose first language is not Chinese, and who have started their study of Chinese at university level. Other students will not be permitted to enrol in these units, but are welcome to enrol in any of the other units as specified in the unit descriptions.

Students who already know Chinese quite well should enrol in CHN156 Introduction to Chinese Culture in their first semester. This course is entirely in Chinese, and all lectures will be in Mandarin. Another popular unit at 100 level is CHN112 Chinese Calligraphy, which is suitable both for students who know little Chinese and for those who are quite literate in Chinese.

Students who have passed HSC Chinese (Background Speakers) may directly enrol in CHN208 Intermediate Chinese for Background Speakers I and CHN209 Intermediate Chinese for Background Speakers II.

Japanese programs

Students who have not studied the Japanese language before and students with minimum experience in formal studies of Japanese will start their Japanese studies with two half-year units, JPN110 and JPN117. Both units are offered in the first half-year as well as in the winter vacation and form prerequisites for the rest of the Japanese program. After successful completion of JPN110 and JPN117, students can proceed to JPN111, which is a continuation of JPN110, available in the second half-year as well as in the summer vacation. In addition, before proceeding to 200-level Japanese, students are strongly recommended to undertake JPN115, JPN118 and JPN190 to develop their basic skills in Japanese reading, writing, listening and speaking.

Introductory level students, who have completed some formal Japanese studies, including HSC Beginner Japanese, start their Japanese Studies program with JPN221 and proceed to JPN222

In addition to language units, JPN123 Japan's Contemporary Culture through Manga and JPN124 Japan —Past and Present are offered in the first half-year and JPN122 A Survey of Japanese Culture in the second half-year. These units aim to introduce students to Japanese society and culture. JPN195 Japanese In-country Program is for language and cultural study in Japan. This unit is undertaken during the mid-year break.

Students who have completed HSC Continuers or Extension Japanese will begin with the language unit JPN331 in the first half-year and continue with JPN332 in the second half-year. They may also enrol in the various 200-level optional Japanese units.

Bachelor of Social Science

The Bachelor of Social Science can be completed with coherent study in Asian studies. For more details see the entry for interdisciplinary studies within the Faculty of Arts in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
International Studies	Asian Studies	INS01

Interdisciplinary studies

With the establishment of the Centre for Japanese Economic Studies, it is possible for students to combine the study of Japanese language and culture with the study of Japanese business and economics. Students who are interested in such a program, or in the Bachelor of Business Administration with Japanese Studies degree, should seek academic advice from the Faculty of Business and Economics and check prerequisites with the staff of the Department of Japanese Studies. JPN370 Reading for Special Purposes forms part of the requirements for a coherent major in a Bachelor of Economics or Bachelor of Commerce in Japanese Economy and Language.

The training of Japanese language teachers is one of the objectives of the Department. A specialist Centre, the Japanese Studies Centre for Teaching Development, was established to build on the teaching strengths of the Department and to develop new initiatives in this field.

Distance education program

The units JPN110, JPN111, JPN115, JPN117, JPN123, JPN221, JPN222, JPN223, JPN323, JPN331, JPN332, JPN381, JPN382 are offered in distance mode.

European Languages and Cultures

Full programs, including majors, are offered in the following languages: Croatian, French, German, Italian, Macedonian, Modern Greek, Polish, Russian and Spanish.

The aim is to develop proficiency in these languages and to provide an understanding of the society and culture of the countries where they are spoken. Up-to-the-minute language teaching methodology and technology are used, and there is a strong emphasis on communication skills.

Programs in Croatian, Macedonian, Modern Greek and Polish are financially supported by their respective Studies Foundations.

Level of entry

Beginners' units are available in all of the European languages offered. These do not require any prior knowledge of the language and can be taken by any student of the University. A full study pattern leading to a major is available to students in both the beginners' stream and the post-HSC stream.

Cross-institutional studies

Students from other universities can apply to take Macquarie University units in European Languages on a cross-institutional basis.

Interdisciplinary studies

The Department offers a number of interdisciplinary units that may be of interest to all language students. EUL101 is an introduction to the various societies that make up a colourful Europe working towards unification, a process looked at in more detail in EUL202 The European Union. EUL392 Introduction to Computer-

Assisted Language Learning is designed for all students with an interest in languages. For further information on interdisciplinary units, see the Descriptions of Undergraduate Units in Part 3 of this Handbook.

Reading units

Reading units for special purposes are offered in French and German (FRN295, GMN295, GMN296). They are designed for students who wish to acquire a reading knowledge of the language for interest or research purposes. No knowledge of the language is required as a prerequisite, thus the units are also open to students from other departments.

Distance education program

Most units can be taken by distance education (often with on-line components). All units in Croatian, Macedonian, Polish and Ukrainian are offered in this mode. Many units in French, German, Italian, Modern Greek, Russian and Spanish are also offered by distance education as well as on-campus.

Overseas studies

Overseas studies are strongly encouraged by the Department and a comprehensive program has been introduced which offers students of European languages the possibility of studying at a tertiary institution in Europe. Their overseas studies will be credited towards their Macquarie University degree, diploma or certificate. Degree regulations require students studying overseas to complete at least 9 credit points of the minimum of 18 credit points needed at 300 level at Macquarie University. Students should discuss their overseas program in advance with an academic adviser to ensure that they fulfil all degree requirements.

Residential short units

These units are offered at introductory, intermediate and advanced levels in Croatian, French, German, Italian, Modern Greek, Russian and Spanish. Students attend a short intensive language course at a European university during the mid-year break or the long vacation.

In-country study units

Two semester-long units are offered, EUL301 In-Country Study Unit I and EUL302 In Country-Study Unit II. Students enrolled in any of the European languages can take these units. Students undertake an approved program of study at a European university, usually one with which Macquarie University has an exchange agreement. For more information see the Descriptions of Undergraduate Units in Part 3 of this Handbook.

In support of its policy of internationalising undergraduate study the University offers travel grants for students undertaking overseas study as part of their award. In some languages other travel scholarships are also available. For further information contact the Department.

Bachelor of Arts

Students wishing to major in a European language should follow one of the two study patterns offered in each language: beginners' (for students with no or limited knowledge of the language) or post-HSC (for students with HSC Extension or Continuers (Bands 4-6) or equivalent). Students unsure of their entry level should contact the Department for advice.

Majors and coherent studies

The Bachelor Degree Rules require at least 18 credit points above 200 level, including an approved coherent combination of units such as the ones listed below. Students can, if they wish, take all of the 18 credit points, and more, within the Department of International Studies. The various study patterns leading to majors are set out in the Schedule of Programs of Study in Part 3 of this Handbook. Please refer to the Schedule under Area of Study: European Languages when selecting a program.

The following programs satisfy the requirements for this degree.

Area of Study	Study Pattern	Code
European Languages	Croatian–Beginners	CRTN01
	Croatian–Post-HSC	CRTN02
	French–Beginners	FRNC01
	French–Post-HSC	FRNC02
	German–Beginners	GRMN01
	German–Post-HSC	GRMN02
	Italian–Beginners	ITLN01
	Italian–Post-HSC	ITLN02
	Macedonian–Beginners	MCDN01
	Macedonian–Post-HSC	MCDN02
	Modern Greek–Beginners	MDGK01
	Modern Greek–Post-HSC	MDGK02
	Polish–Beginners	PLSH01
	Polish–Post-HSC	PLSH02
	Russian–Beginners	RUSN01
	Russian–Post-HSC	RUSN02
	Spanish–Beginners	SPNH01
	Spanish–Post-HSC	SPNH02

Certificate in Languages, Diploma in Languages

A Certificate in Languages and a Diploma in Languages are offered in all European languages, starting at introductory, or at intermediate level. Both are HELP-based awards and can be completed together with a degree, or as stand-alone programs. Transfer is possible from the Certificate to the Diploma, and from the Diploma to a Degree program. Interested students should contact the Department for further information.

Majors and coherent studies

The following programs satisfy the requirements for these awards.

Area of Study	Study Pattern	Code
European Languages	Croatian–Diploma	CRTN03
	Croatian–Certificate	CRTN04
	French–Diploma	FRNC03
	French–Certificate	FRNC04
	German–Diploma	GRMN03
	German–Certificate	GRMN04
	Italian–Diploma	ITLN03
	Italian–Certificate	ITLN04
	Macedonian–Diploma	MCDN03
	Macedonian–Certificate	MCDN04
	Modern Greek–Diploma	MDGK03
	Modern Greek–Certificate	MDGK04
	Polish–Diploma	PLSH03
	Polish–Certificate	PLSH04
	Russian–Diploma	RUSN03
	Russian–Certificate	RUSN04
	Spanish–Diploma	SPNH03
	Spanish–Certificate	SPNH04

Honours programs

Students interested in taking Honours should consult staff in their particular language for information about prerequisites and study programs.

Department of International Studies enquiries

Asian Studies

Room: W6A 227
Phone: +61 2 9850 7008
Fax: +61 2 9850 7054
Email: tina.kong@mq.edu.au
Web: www.asianlang.mq.edu.au

European Languages and Cultures

Room: W6A 217
Phone: +61 2 9850 7005
Fax: +61 2 9850 7054
Email: jennifer.heward@mq.edu.au
Web: www.eurolang.mq.edu.au

Department of Media, Music and Cultural Studies

The Department of Media, Music and Cultural Studies includes the disciplines of media, contemporary music studies, critical and cultural studies and international communications. Units offered cover the practice, analysis and criticism of creativity and communication (screen production, writing, music, performance, radio, dance and multimedia). The Department is home to leading creative practitioners and international scholars in the fields of media analysis, communications and cultural studies; from the history of film to body technology, from Australian identity to Pacific music, from global television to digital culture, students are exposed to the latest techniques in analysing culture and re-thinking contemporary creative and communications practices. In its extensive studio and workshop facilities, students can mount their own creative work from conception to production.

Bachelor of Arts
Cultural studies programs

Units in cultural studies are designed to enable students to develop the analytical and creative skills necessary for an understanding of the changing nature of contemporary culture. Units are offered across the whole field of studies in contemporary culture, such as the culture of everyday life, visual culture, multimedia, Asian cultural studies, the body and its relationship to technology, sexuality and queer theory, gender and feminist theory, Australian cultural studies, writing, and performance studies. Texts studied are very diverse, including popular and 'high' cultural forms (for example, films, popular music, genre fiction) and are placed in a theoretical framework drawn from such fields as recent political theory, psychoanalysis, poststructuralism and feminism. Students can take units in practical performance as well as creative writing at both 200 level and 300 level. Graduates of programs in critical and cultural studies may work as writers, researchers, publishers, journalists, public relations consultants, public servants, teachers, academics, policy makers, artists and consultants.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Cultural Studies	Media & Cultural Studies A	CUL01
	Media & Cultural Studies B	CUL02
	Critical & Cultural Studies	CUL03
	Writing & Performance	CUL04
	Interdisciplinary Cultural Studies	CUL05
	Drama Studies	CUL06
	Performance Drama	CUL07
	Critical and Cultural Studies	CUL10

Entry requirements

Candidates wishing to take 200-level CUL units who have not satisfied the appropriate prerequisites may, in certain circumstances, be considered for admission upon satisfactory completion of preliminary reading, provided that they have gained at least 18 credit points towards their degree.

Bachelor of Arts with Honours Cultural Studies program

The Critical and Cultural Studies Honours program offers a challenging opportunity for intensive study at a higher level. It is a professionally prestigious extension to an undergraduate degree and a gateway to higher research degrees (such as the MPhil and PhD degrees) in cultural studies.

The Honours year is taught as a combination of dissertation and coursework units such as Cultural Theorists and Methodologies; Culture, Politics and Ethics; Deconstructing Terrorism; Performance and Performativity: An Introduction to Performance and Audience Studies; Post Human; Deconstruction In/For Everyday Life.

Entry requirements

To be eligible for admission to the Honours program students must have an undergraduate degree with a major in critical and cultural studies, and an overall GPA of 2.5 and a GPA of 3.0 at 300 level.

Bachelor of Arts Contemporary music programs

Units in contemporary music provide a broadly-based introduction to contemporary music in the form of 20th and 21st century fine, popular and world music with particular attention to music produced within the Pacific rim. Production units at 200 level and 300 level involve use of Apple computer labs (along with samplers, sequencers, etc) to compose and produce original music and, in MUS302, music and multimedia work. A series of units in singing and guitar performance are also offered at 200 level and 300 level.

Note: Students are not required to have previous instrumental skills and/or experience in the study of music prior to commencing a program of study in contemporary music. The units provide full introductions to the skills and analytical frameworks necessary to complete the course, with practical units streamed according to competency.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Music	Contemporary Music	MUS01
	Music and Dance	MUS02

Bachelor of Arts with Honours Contemporary music studies program

A Bachelor of Arts (Hons) is available in a one year full-time mode (MUS490) or a two year part-time mode (MUS495).

A minimum GPA of 2.5 at third year plus a coherent study in music (or media with at least two 300-level music units) is required.

Students will take MUS440 Music, Culture and Context, MUS441 Research Induction, MUS444 Thesis/project and either MUS442 Music Analysis or MUS443 Music Production.

Bachelor of Creative Arts

The Bachelor of Creative Arts (BCA) is a multi-disciplinary degree designed for those seeking employment in the arts and associated organisations or public services, especially those who plan a career involving arts administration.

The program adopts a wide definition of the arts and addresses the needs of workers in areas including theatre, film, publishing, galleries, museums, funding organisations, regional arts centres and educational institutions. Students will complete a major study in arts, specifically creative writing, drama and performance, visual art and multimedia or music.

It is expected that BCA graduates will possess in-depth knowledge of at least one arts area; vocational orientation in the arts; a working knowledge of galleries, museums, the collation of materials and the way galleries function; human resource management skills and sound knowledge of business principles and practice; knowledge of copyright law and intellectual property; access to and working knowledge of communications technology; the ability to conduct research in the arts, handle publicity and media inquiries, and liaise with arts-related organisations, funding bodies and industry; and the capacity to work in arts projects in arts centres, schools and the community.

To fulfil the requirements for the BCA a student must complete at least 72 credit points, including such units as are prescribed for the degree; at least 42 credit points in units above 100 level; at least 18 credit points in units above 200 level; and these 18 credit points must include a coherent study from those approved for this degree.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Creative Arts	Music	CRE01
	Drama, Dance and Performance	CRE09
	Creativity: Writing and Art	CRE10

Honours program

An Honours program may be undertaken in the BCA.

Bachelor of Creative Arts (International)

Students in the Bachelor of Creative Arts (International) do an international, university funded work placement in the third year of the degree.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Creative Arts	Music	CRE05
	Drama, Dance and Performance	CRE11
	Creativity: Writing and Art	CRE12

Honours program

An Honours program may be undertaken in the Bachelor of Creative Arts (International).

Bachelor of International Communication

The Bachelor of International Communication (BIntCom) is designed to propel graduates towards careers in the media, public relations, policy, diplomacy and related fields where knowledge of intercultural issues and practical skills in writing and public relations are valuable.

Internationally-minded students will benefit from a balanced program of core units offering practical media and public relations skills and a wide range of electives providing theory and insights across cultures, media and globalisation.

Choices of supporting subjects include units from anthropology, geography, languages, politics, sociology, history, cultural studies, linguistics and philosophy.

The degree program is structured around core units of international communication (ICOM units) at 100, 200 and 300 level, with maximum flexibility of choice in media and cultural studies. Overall, a BIntCom student has to complete 68 credit points, of which at least 38 credit points must be at 200 level or higher. A minimum of 18 credit points must be at 300 level.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Media Studies	International Communication	MEDA02

Entry requirements

Entry to ICOM units is restricted to students enrolled in the BIntCom, Bachelor of Media, or Bachelor of Arts in Media and Cultural Studies.

Students enrolled in the Bachelor of Media or Bachelor of Arts in Media and Cultural Studies may transfer to the BIntCom. Please refer to the course transfer rules in Part 1 of this Handbook.

Academic advice

Students intending to enrol in the BIntCom are advised to contact Dr Qin Guo on +61 2 9850 8110 or at qin.guo@mq.edu.au.

Bachelor of Media

The Bachelor of Media degree addresses media theory and practice over three years of full-time study or the equivalent part-time study. The degree is structured around core units of media studies and production at 100, 200 and 300 levels. It is designed to provide students with the opportunity to combine theoretical approaches with the hands-on making of media productions. Working in the 21st century media demands a range of skills; students are encouraged to develop core conceptual, research and writing skills as well as specific production abilities in a range of media realms. Graduates are equipped to play a substantial role in modem, converged media industries. The first year of study includes a common core of media theory units focusing on Australian and international media, as well as a core production unit exploring the use of digital media technologies. At 200 level, students must do two core theory units and two core production units. They choose these units from a selection of core units, and make up the required credit points with electives. At 300 level, students are also required to do two core theory and two core production units, chosen from a selection of core units. Again, they can make up the required credit points with electives.

Production units include offerings in writing, screen writing, screen production, multimedia, radio and public relations. Students may choose to major in a particular area of media production or combine different production areas into a program. All production offerings use state-of-the-art digital facilities and industry standard computer hardware and software.

Students are also required to undertake a number of units in media, screen and cultural theory. These units develop critical and analytical skills that enable students to situate their media productions within a genuine critical context.

In addition, key media electives include a 300-level internship unit in which students are placed with an industry partner for a semester of study-related work.

At all levels, students can choose electives offered by the Department of Media, Music and Cultural Studies or elsewhere in the University. Students are also encouraged to undertake short courses overseas with our partner universities. Current offerings include print and online journalism at the School of Journalism, University of Missouri-Columbia and TV journalism at the Department of Media Arts, Butler University, Indiana.

Entry requirements

All applicants to the Bachelor of Media should apply through UAC. Their selection will be based on either 1) portfolios and appropriate work experience or 2) a completed and approved TAFE diploma. For more information contact the Department.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Media	Media	MEDA03

Honours program

The Media Honours program provides students with an invaluable opportunity for an additional year of intensive academic study after completion of the Bachelors degree. The Honours degree involves an additional two semesters of full-time study and consists of three seminar units followed by a semester where students work under the close supervision of a staff member on a thesis which includes either a theoretical thesis, or a media production such as writing, screen, multimedia or radio. The Honours year is considered ideal for those who intend to work in the media/film/cultural industries and who desire to entice employers with more than a standard undergraduate degree. It is also useful as a gateway to further postgraduate research work.

Admission requirements

Admission to the Media Honours program requires:

- An overall GPA of 2.5 with a GPA of 3.0 at 300 level.
- The satisfactory completion of a Bachelor of Media, Bachelor of Arts in Media and Cultural Studies, Bachelor of Media with Bachelor of Laws, or Bachelor of International Communication. The department also welcomes applications from those with equivalent Media degrees at other institutions.
- In addition to the application, students are required to submit a two page proposal outlining their intended thesis topic.

Students who do not meet the above requirements may still be considered but must submit an explanation of their suitability and commitment to the Honours program.

Academic advice

Students intending to major in media are advised to consult with staff members concerning their programs of study. A staff member will be available for consultation during the enrolment period.

Bachelor of Media with Bachelor of Laws

Students can enrol in a five-year combined law degree which includes the media degree. For more information on this degree see the entry for Macquarie Law School in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Media Studies	Media Law	MEDL01

Graduate Certificate in Critical and Cultural Studies, Graduate Diploma in Critical and Cultural Studies

The Department offers an online Graduate Certificate or Graduate Diploma in Critical and Cultural Studies. The Graduate Certificate comprises a minimum of 14 credit points from selected units offered by the Department, and the Graduate Diploma comprises a minimum of 26 credit points from selected units offered by the Department.

Entry requirements

Admission to the either the Graduate Certificate or Graduate Diploma in Critical and Cultural Studies requires a Bachelor of Arts or equivalent.

Majors and coherent studies

The following programs satisfy the requirements for these awards.

Area of Study	Study Pattern	Code
Cultural Studies	Critical and Cultural Studies	CULT01
	Critical and Cultural Studies	CULT02

Department of Media, Music and Cultural Studies enquiries

Room: W6A 641
Phone: +61 2 9850 6808
Fax: +61 2 9850 6593
Email: mmcs@mq.edu.au
Web: www.media.mq.edu.au
www.dcms.mq.edu.au
www.ccs.mq.edu.au

Department of Modern History, Politics, International Relations and Security

Modern history is an enquiry into past human experience. It is an enquiry in which we seek to learn not only what happened, but to consider motives, causes, patterns and consequences. As an enquiry, historical study involves distinct skills in examining evidence, in reading, in evaluating evidence, and in argument. Possible careers include public servant, diplomat, administrator, writer, research assistant and, with further studies, teacher, museum curator, librarian, archivist, and careers involving records management, freelance historical assignments, editorial work, journalism, travel and tourism, heritage, and cultural agencies.

Politics is a valuable preparation for many careers. Foreign service trainees and administrative trainees in the public service have usually included some study of politics in their degrees. A politics degree also aids entry to more directly political occupations such as parliamentary staff. In the private sector, many Macquarie University politics graduates are employed in non-government organisations including foreign aid agencies, trade unions, business lobbies, in the rapidly growing field of public affairs management and as journalists. Politics is also an appropriate area for teachers, particularly with the introduction of new Civics and Asian Studies streams in primary and secondary school curricula. Politics combines well with broader humanities and social science programs, such as history, philosophy, sociology, or mass communications. It is a useful addition to an economics degree and has close affinities with the study of law. For more information see www.pol.mq.edu.au.

Bachelor of Arts

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Modern History	Modern History	MDH01
	Australian History	MDH02
	World History	MDH05
History	History	HST01
Politics	Politics and International Relations	PLT01
	History & Politics	PLT02

Politics programs

Politics at Macquarie University consists of four main sub-fields: Australian politics and public policy; international relations; political theory; and area studies focusing on particular world regions.

Australian Politics and Public Policy

At first-year and second-year levels the units concentrate on familiarising students with institutional structures and recent political history, on introducing basic concepts and analytical approaches to the study of politics, and on exploring the relationship between certain practices and aspects of political theory. In some third-year units students are introduced to general theories and approaches to policy analysis.

POL165; POL168; POL250; POL300; POL374; POL386

International Relations

Units in this field look at Australia and its region, United States foreign policy and the international relations of the Third World. Later units develop the advanced study of particular aspects of policy formation.

POL168; POL270; POL321; POL380; POL386

Political Theory

The objective of this strand is to introduce students to major debates in the field and different ways of political thinking. All students pursuing a coherent course of study in Politics are strongly encouraged to enrol in at least one political theory unit at second-year or third-year level. Students are introduced to the ideas of influential political theorists and to debates about democracy, liberalism, justice, feminism and civil society.

POL167; POL264; POL342; POL391

Area Studies

This strand concentrates on the way in which internal and external factors shape political developments in countries other than Australia. The main areas covered are the United States, the Middle East, Latin America, China, South Asia and Europe.

POL251; POL252; POL260; POL266; POL276; POL321; POL369; POL383

Bachelor of Arts with Honours

Modern History program

Students with the appropriate qualifications (GPA of 2.6 overall and 3.0 at 300 level) are invited to join the Modern History Honours program. The program may be completed in one year of full-time study or two years of part-time study. Students may enrol either at the beginning of the year or mid-year. University's Student Service before 31 October or 31 May, depending on the starting date.

Modern History Honours is intended to help equip students for a variety of careers and qualify them as creative persons developing capacity for independent and critical thought. The program also provides an initiation into the profession and a preliminary to postgraduate work. The Honours course consists of two units in history and theory, one seminar unit, and a thesis of 15,000-20,000 words. Students also have the option of completing a professional placement.

For further information about the program please contact Dr Michelle Arrow, History Honours Convenor on +61 2 9850 8840 or at michelle.arrow@mq.edu.au, or visit www.modhist.mq.edu.au/honours.html.

Politics program

Students who wish to enter the Honours program course must complete at least a major sequence in politics

(12 credit points at 300 level), with a GPA of 3.0 or better at 300 level, and a GPA in Humanities and/or Social Science units at 300 level of 3.0 or better; POL368 Reading Unit in Politics should be included. It is recommended that intending honours students in politics should have some acquaintance with other social sciences and the humanities. In terms of credit points, a well-balanced preparation might be 24 credit points in politics and 12 each in history or philosophy and the behavioural or earth sciences. It is desirable for students to combine a coherent study in politics with a major coherent study in economics, media study, history, sociology, philosophy, anthropology, urban studies, or a foreign language.

The honours program is offered on a part-time (two year) basis, as well as on a full-time (one year) basis, specifically to accommodate people whose work or other commitments do not allow them to study full-time. The course commences in the first half-year, but students may also enrol in the second half.

The honours course program consists of two seminar units (in the first half of the year), a 15,000 word thesis and a thesis writing seminar. Students must have a thesis topic approved by their prospective supervisor before their applications will be accepted. For students who enrol at the beginning of the year, work on the thesis should begin over the summer break and be well advanced by April.

Bachelor of Social Science

The Bachelor of Social Science can be completed with a coherent study in Modern History or Politics. For more details see the entry for interdisciplinary studies within the Faculty of Arts in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Modern History	Modern History	MDH04
Politics	Politics	PLT04

Department of Modern History, Politics, International Relations and Security enquiries

Modern History

Room: W6A 400
Phone: +61 2 9850 8879
Fax: +61 2 9850 6594
Email: jacqueline.anker@mq.edu.au
Web: www.modhist.mq.edu.au

Politics and International Relations

Room: W6A 440
Phone: +61 2 9850 8869
Fax: +61 2 9850 6064
Email: kelli-lee.drake@mq.edu.au
Web: www.pol.mq.edu.au

Department of Philosophy

Philosophy develops invaluable skills in creative thinking, communication and problem-solving. Philosophy does not tell you what to think; it teaches you how to think for yourself. You learn how to reflect on your views, give reasons for them, and to understand and evaluate other positions and arguments.

As a subject, philosophy asks, and seeks to answer, fundamental questions about many areas of human life and intellectual inquiry. These include questions about the relationship between mind and body, the existence of God, the status of moral beliefs and aesthetic judgements, the nature of knowledge, the relationship between the world and our concepts, and modes of reasoning. However philosophers are also concerned with contemporary social and political issues, such as euthanasia, gender relations, and indigenous rights.

Because philosophy is such a broad subject, it combines well with a range of other degree programs, including those in psychology, law, the natural sciences, mathematics, computing, anthropology, sociology, media, cultural studies, politics, and history. Philosophy graduates may enter careers in fields as diverse as business, journalism, foreign affairs, politics, the law, medicine, computing, and the arts.

The program in philosophy at Macquarie University offers a wide variety of units in different traditions of philosophical thought and technique (both 'analytic' and 'continental').

The four 100-level units provide an introduction to a range of different philosophical issues and techniques:

PHIL131; PHIL132; PHIL134; PHIL137

200 level and 300 level philosophy units fall into three main areas:

Applied Ethics and Ethical Theory

PHIL225; PHIL242; PHIL260; PHIL264/364; PHIL341; PHIL352; PHIL357; PHIL382

Continental and Social Philosophy

PHIL238; PHIL250; PHIL254; PHIL351; PHIL356; PHIL365

Mind, Metaphysics and Meaning

PHIL232; PHIL246; PHIL249; PHIL256; PHIL262; PHIL280; PHIL281; PHIL358; PHIL363

The Department also teaches two units on the history of philosophy: PHIL245 History of Philosophy 1 and PHIL359 History of Philosophy 2.

100 level units are offered every year; some 200 level and 300 level units are offered in specific rotation patterns. Further information about units and sequences is available from the Department of Philosophy.

Interdisciplinary studies

An interdisciplinary program in psychology and philosophy is also available to students enrolled in the Bachelor

of Arts – Psychology, Bachelor of Science or Bachelor of Science – Psychology. For details see the entry under Department of Psychology.

Bachelor of Arts

This general degree provides maximum flexibility of course choice in the humanities and social sciences.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherent Studies	Code
Philosophy	Philosophy	PHL01

Entry requirements

Candidates who wish to take 200-level units, but who have not satisfied the appropriate prerequisites, may, in certain cases, be considered for admission upon satisfactory completion of preliminary reading, provided that they have gained at least 12 credit points towards their degree.

Academic advice

Students intending to major in philosophy are advised to consult with staff members concerning their programs of study. A staff member will be available for consultation during the enrolment period.

Bachelor of Social Science

This degree is specifically tailored to the social sciences. Many philosophy units are core units in the Bachelor of Social Science. For more details see the entry for interdisciplinary studies within the Faculty of Arts in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Philosophy	Social Philosophy	PHL03

Honours program

The Philosophy Honours Program offers an exciting and challenging opportunity for intensive philosophy study at a higher level. It is a professionally prestigious extension to an undergraduate degree and a gateway to higher research degrees (such as the MPhil and PhD degrees) in philosophy.

Admission requirements

Admission to the Philosophy Honours program requires:

- An overall GPA of 2.5 with a GPA of 3.25 at 300 level.
- Completion of 28 credit points in Philosophy, of which at least 12 credit points should be at 300 level. In addition, the Department of Philosophy encourages intending Honours students to take a broad range of units in Philosophy prior to the Honours year.
- The Philosophy Department's Honours Sub-committee may invite applicants for an interview to determine their suitability for Honours and whether there will be an appropriate supervisor for their Honours Thesis.

Students who do not meet the above requirements may still be considered but must submit an explanation of their suitability and commitment to the Honours program.

Graduate Diploma in Philosophy

The Graduate Diploma in Philosophy is a degree especially designed for those who already have an undergraduate degree (in any field, from any recognised institution) and who wish to undertake a short, intensive program of study in philosophy, for their own personal interest, to enhance and update their professional skills and expertise, or as a means of acquiring the philosophical background necessary for pursuing further postgraduate work in philosophy. Students who have undertaken the Graduate Diploma in Philosophy in recent years have had undergraduate degrees in areas as diverse as business, engineering, tourism, commerce, accounting, economics, statistics and psychology. The diploma is undertaken over one year of full-time study or two years of part-time study. Candidates must obtain an aggregate of at least 24 credit points at 200 level or above in philosophy units, including at least 12 credit points at 300 level. Students may make up those 24 credit points out of the undergraduate philosophy units currently on offer, but those who are undertaking the Diploma as further professional training or as a bridge to postgraduate work in philosophy are strongly advised to consult with a member of the philosophy staff when compiling their program of units. A GPA of 3.25 in the graduate diploma will qualify students for acceptance into the honours program in philosophy.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Philosophy	Philosophy	PHLS05

Entry requirements

A Bachelor degree in any field of study from Macquarie University or any other accredited tertiary institution.

Department of Philosophy enquiries

Room: W6A 739
Phone: +61 2 9850 8837
Fax: +61 2 9850 8892
Email: clara.wong@mq.edu.au
Website: www.phil.mq.edu.au

Department of Sociology

Sociology is the study of the modern social world. It reflects the habitual practice of modern society to subject its own identity and practices to critical scrutiny and reflection.

Typically, sociology challenges our commonsense assumptions about how our society works and our place in it. It asks us to develop an informed and more analytical understanding of our social relations.

By convention, sociology usually focuses on modern industrial and post-industrial societies. It is concerned with understanding such things as: power and inequality in society, the dynamics of social change, the contributions of social movements to social change, shared and contested values, art and culture, the social features of our individual lives, and the experience of particular groups. Sociology concerns itself with such issues as governing society in liberal democracy, the effects of globalisation, the role of media, and the relationship between our social and personal lives.

Interdisciplinary studies

Sociology participates in the Community Management Program with Department of Indigenous Studies—Warawara. This program focuses particularly on developing management-based research skills. For more information see the entry for the Department of Indigenous Studies in this Part of this Handbook.

Distance education program

The following units can be studied by distance education. They are also offered through the Open Universities Australia program:

SOC175; SOC180; SOC234; SOC372.

Bachelor of Arts

Students complete core subjects in sociology at 100 and 200 level, 12 credit points in sociology in the range SOC300-SOC399, plus six credit points at 300 level in sociology or a cognate discipline.

In the Sociology of Media strand, students proceed as above, but complete six credit points from 300-level MAS units, excluding MAS325 and MAS326, and including not more than four credit points from MAS323, MAS324, MAS395, MAS396, together with eight credit points from 300-level SOC units.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Sociology	Sociology	SOC01
	Sociology of Media	SOC03

Honours program

Students with a strong undergraduate record are encouraged to do honours in sociology. The Department of Sociology offers an honours fourth-year program year in both the Bachelor of Arts and the Bachelor of Social Science. The honours program gives students the opportunity to develop their skills and knowledge of the discipline at a deeper level in both sociological theory and research. At the centre of the honours year is an individually supervised piece of independent research, which provides students with the opportunity to develop skills in research, theorising, argument and writing. An honours degree is usually highly regarded by employers, and opens up possible careers in social research and the opportunity for higher study.

Students wishing to qualify for entry to the honours year in Sociology should have completed a coherent program of study in sociology with an overall credit grade average.

The honours program consists of two seminar units and the supervised preparation of a 15,000-word research thesis. The two seminar units are: Theoretical Foundations of Sociology and Research Design.

Joint honours programs in sociology and another discipline can also be undertaken if an appropriate undergraduate preparation in both disciplines has been completed.

Students who are interested should consult the convener of this program, Dr Eduardo de la Fuente on +61 2 9850 9940, in the year before they intend to do the sociology honours program.

Entry requirements

Any student entering the Bachelor of Arts program is qualified to undertake studies in sociology. Mature age students and special entry students are always welcome and usually do well (for further information contact the Student Enquiry Service on +61 2 9850 7314). Note that some units are offered in the evening to meet the needs of part-time students. Applicants with a first degree in another social science area who want to take up sociology may undertake selected units as non-award students or, alternatively, may enter the policy and social research degrees.

Bachelor of Social Science

The Bachelor of Social Science can be completed with coherent study in Sociology. For more details see the entry for interdisciplinary studies within the Faculty of Arts in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Sociology	Sociology	SOC09

Interdisciplinary Women's Studies, Gender and Sexuality

Women's studies, gender and sexuality is a major area of interdisciplinary study at Macquarie University and can be part of several degrees: Bachelor of Arts, Bachelor of Social Science, Bachelor of Arts (Honours), Bachelor of Social Science (Honours). It is possible to take a unit or two for general interest. Work in another field (like media, modern history, sociology, human geography, or law) can be combined with some of our units specifically chosen to dovetail with and complement it. It is possible to specialise in women's studies, gender and sexuality as part of a coherent program of study.

As a discipline located within the Department of Sociology, women's studies, gender and sexuality investigates what it means to be a woman or a man in society and culture. Our units look closely at the impact of gender, sex and sexuality on our lives in a variety of arenas: at home, at work, on the streets, in the classroom. Who are we? Why are we the ways we are? What directions is society taking and how can it be transformed? Women's studies and gender studies offer new approaches to untangling these questions. Units come from the disciplines of anthropology, English, critical and cultural studies, history, law, media and communications, human geography, philosophy, sociology and many others. Other units on offer focus solely on women's studies, gender and sexuality.

Like other knowledge programs within the generic Bachelor of Arts or Bachelor of Social Science degrees women's studies, gender and sexuality is not designed to offer vocational training as such. What it does foster is the development of critical thinking, and writing and communication skills, all of which are generic skills keenly sought by today's employers. In addition, it offers expertise on a specific range of questions to do with gender which concern many fields of employment including education, health and welfare, political or public policy making, media writing and advertising, and management of private and public enterprises (sexual harassment and equal opportunity policy, issues of power, personnel management and office culture).

Distance Education Program

All core women's studies, gender and sexuality units are offered externally as well as internally: in 2009 WST110 X2, WST210 X1 and WST311 X2.

Bachelor of Arts

This general degree provides maximum flexibility of course choice in the humanities and social sciences.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Women's Studies	Women's Studies, Gender and Sexuality	WST05

Bachelor of Social Science

This degree is specifically tailored to the social sciences. women's studies, gender and sexuality units at 200 and 300 level are offered as part of this degree. For more details see the entry for interdisciplinary studies within the Faculty of Arts in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Women's Studies	Women's Studies	WST06

Honours program

An Honours year can be undertaken solely in women's studies, gender and sexuality or in conjunction with honours in another discipline. This requires careful coordination between the disciplines concerned, and each prospective honours student is asked to consult with the Department to tailor a program according to the disciplinary interests of the student and the requirements of honours in other disciplines.

Students qualify for entry to the honours year on the basis of their overall GPA and their GPA in 300 level units. Those wishing to enter honours work in women's studies, gender and sexuality should have completed a program of study Studies in the discipline or one relevant to it, at an overall GPA of 2.5 with a GPA of 3.0 in 300 level units. Normally this would include some of the coherent combination units listed above, as well as WST core units.

The honours year generally combines three seminar units with the writing of a short thesis, the length of which varies depending on the extent of the student's commitment to honours work in other disciplines (it is usually 12,000-15,000 words). Whatever the topic your thesis addresses, you must discuss your intentions with the Honours Convener, Judy Lattas, and submit a short proposal.

Graduate Diploma in Women's Studies

Graduate diplomas are offered for graduates who wish to train in another discipline. They consist wholly of undergraduate units in a particular discipline.

To qualify for the Graduate Diploma in Women's Studies a candidate must obtain an aggregate of at least 23 credit points, including at least 11 credit points in units with the code WST and 12 credit points at 300 level or above, including such units as have been prescribed by the Academic Senate on the recommendation of the designated Executive Dean of Faculty.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Women's Studies	Women's Studies, Gender and Sexuality	WMST01

Academic advice

Students interested in completing coherent studies in women's studies, gender and sexuality should be aware that there are core units to complete as well as five unit groups to consult in planning your degree. These are:

- Women's Studies;
- Gender, Culture and Media Studies;
- Gender and Sexuality;
- Gender Studies; and
- Women and History.

For more detailed information on the coherency, unit groups, Honours candidature or the Graduate Diploma see an academic advisor from the Faculty of Arts. A staff member will be available for consultation during the enrolment period.

Students interested in women's studies, gender and sexuality can also contact the Honours Convenor, Dr Judy Lattas on +61 2 9850 7947 or at judy.lattas@mq.edu.au.

Department of Sociology enquiries

Room: C3B 519
Phone: +61 2 9850 8078
Fax: +61 2 9850 9355
Email: vicki.worthington@mq.edu.au
Website: www.soc.mq.edu.au

Macquarie Law School

Macquarie Law School offers a variety of courses, including both internal and external degree courses in law as combined law programs, or by distance to mature age students. Some individual units may also be available to students in other programs.

In the earlier part of their course combined law students are required to undertake the study of law in conjunction with studies in other disciplines.

The School is committed to producing graduates who are informed, reflective and ethical citizens and professionals. It seeks to achieve international recognition for research excellence with a particular emphasis on interdisciplinary scholarship and to enhance the relationship with the local, national and international community, the legal profession and alumni.

All Bachelor of Laws (LLB) programs at Macquarie University are accredited programs for the purpose of admission to practise as a legal practitioner in New South Wales. If a person seeks admission to practise it is necessary to complete a program of practical legal training in addition to the completion of an accredited program of legal study (see below 'Professional accreditation'). Opportunities for lawyers exist outside the field of private practice, especially in government and commerce. For those who wish to enter the public service as legal officers it is essential, and for those who wish to enter commerce as legal advisers ('in-house lawyers') it is advisable to obtain a professional qualification. Of course there are others who may find a knowledge of the law invaluable in careers in politics, diplomacy, commerce or industry. However, the final two-year segment of all the combined degree courses has been designed on the assumption that almost all students will be seeking a professional qualification, whether they intend to practise law or not.

Areas of study

Programs in the following areas of study are offered by the Macquarie Law School.

Area of Study	Award
Accounting	BCom-Accg LLB
Actuarial Studies	BCom-Act Stud LLB
Business	BBA LLB
Economics	BCom LLB
Environmental Sciences	BEnvMgmt LLB
Finance	BAppFin LLB
	BCom LLB
Information Technology and Computing	BIT LLB
International Studies	BIntStud LLB
Law	BA LLB
	BCom LLB
	BSc LLB
	LLB (Distance)
Marketing	BCom-Mktg LLB
Media Studies	BMedia LLB
Psychology	BA-Psych LLB
Social Science	BSocSc LLB

Degrees offered

The following awards in law are offered by this Faculty as full-time Combined Law programs:

Bachelor of Arts with Bachelor of Laws
Bachelor of Arts – Psychology with Bachelor of Laws
Bachelor of Applied Finance with Bachelor of Laws
Bachelor of Business Administration with Bachelor of Laws
Bachelor of Commerce with Bachelor of Laws
Bachelor of Commerce – Actuarial Studies with Bachelor of Laws
Bachelor of Commerce – Accounting with Bachelor of Laws
Bachelor of Commerce – Marketing with Bachelor of Laws
Bachelor of Environmental Management with Bachelor of Laws
Bachelor of Information Technology with Bachelor of Laws
Bachelor of International Studies with Bachelor of Laws
Bachelor of Media with Bachelor of Laws
Bachelor of Science with Bachelor of Laws
Bachelor of Social Science with Bachelor of Laws

The LLB program is also offered as a part-time program by distance education to mature-age students (see 'LLB by Distance program' below).

Majors and coherent studies

The requirements for completion of the program for the combined award of the Combined Law degrees are set out in the Schedule of Programs of Study.

Area of Study	Coherency/Study Pattern	Code
Accounting	Professional Accounting & Law	ACCL01
Actuarial Studies	Actuarial Studies & Law	LAW15
Business	Business & Law	BUS04
Economics	Economics & Law	ECOL02
Environmental Sciences	Law	LAW13
Finance	Finance and Law	FNCL01
Information Technology and Computing	Information Technology & Law	INFT03
International Studies	Asian Language–Beginners & Law	ASNS05
	Japanese–Advanced & Law	ASNS06
	European Language–Beginners & Law	EURS05
	European Language–Post HSC & Law	EURS06
Law	Law	LAW04
	Commerce & Law	LAW07
	Science & Law	LAW14
	Distance–Law	LLAW01
Media Studies	Media Law	MEDL01
Marketing	Marketing & Law	MKT10
Psychology	Psychology & Law	PSYL02
Social Science	Social Science & Law	LAW19

Prescribed units

In all law programs there is a prescribed sequence of units and a wide range of optional units at senior level. The LLB component of each program requires the completion of 74 credit points of units with the prefix LAWS.

For students commencing their studies after 2007:

LAW114; LAW115; LAW203: LAW204; LAW208; LAW209; LAW314; LAW315; LAW316; LAW317; LAW405; LAW406; LAW500.

For students who commenced their studies in 2005 to 2007 inclusive:

LAW104; LAW114; LAW203: LAW204; LAW205; LAW206; LAW314 and LAW315; LAW316 and LAW317; LAW405; LAW 406; LAW500.

For students who commenced their studies in 1998 to 2004 inclusive:

LAW103; LAW113; LAW204, LAW205, LAW206, LAW314 and LAW315; LAW316 and LAW317; LAW405; LAW406; LAW500; LAW518.

There are transitional provisions for candidates taking the replaced units. Contact an academic adviser for further advice.

For students who commenced their studies in 1997 or earlier:

Refer to the Handbook for 2003 or earlier for the prescribed sequence of units in law. Academic advice should also be sought from Macquarie Law School.

Duration of study and study loads

The Combined Law programs are designed as five-year full-time programs. The Distance Law program is a part-time program designed to be completed in six years.

All students accepted for a Combined Law program must enrol as full-time students for a minimum of 18 credit points each year unless they can satisfy the Dean of Law that there are special reasons of proven financial or other hardship which justify part-time enrolment. In considering cases, which will be treated individually, the Dean of Law will use the following guidelines:

- Where the student is enrolled for only one half-year, the Dean of Law may approve part-time enrolment for the year where the student enrols for at least 9 credit points; and
- In cases of illness, unavoidable disruption to studies or proven financial or other hardship, the Dean of Law may approve the student's enrolment in less than 9 credit points in any half-year or less than 18 credit points in any academic year, provided that such permission would not normally be given in respect of more than two consecutive half-years.

Students who find at the end of their program that they require fewer than 18 credit points to complete that program may enrol for the number of credit points they still require.

Program of registration

During the first three years of their program, students are advised to register in the Faculty where they intend to pursue the greater part of their non-law studies. This is because students in the early years of their program are required to follow a prescribed sequence of LAW units

and require academic advice as to the choices they must make in the rest of their course. Academic advisers from the Law School are available to assist all students in the law programs, and can offer advice as to what other areas of study may be most beneficial to new students. Students will normally transfer their registration to the Faculty of Arts in their fourth year, when academic advisers from the Law School are better placed to offer specific guidance.

Sequence of elective units in Law

After completion of the prescribed sequence of units from 100 to 300 level, students will normally proceed to complete the minimum of 74 credit points of LAW units for the LLB degree during the following two years.

Students may pursue a cluster of senior elective units in particular areas, for example environmental law, international law, commercial law, legal theory, family law, property law and legal history. Alternatively, students may take a broad range of elective units across the spectrum of units offered by the School. Prerequisites are only set where considered essential, so that students will have considerable flexibility in choosing the sequence of units at 400 level and 500 level.

Major sequences in other disciplines

For details about major sequences in the disciplines combined with law, refer to the Schedule of Programs of Study in Part 3 of this Handbook.

Students wishing to combine studies in law with another sequence of study leading to other professional qualifications, (for example, in science, accounting or business administration), may have to take additional units involving more credit points than might be required for other combined law degrees. Advice should be sought from the relevant Department on professional requirements.

Prerequisites and restrictions on entry to units

Students are required to attain a satisfactory level of achievement to progress through the prescribed sequence of units. For progress in the LLB the pass conceded grade (PC) is not considered a satisfactory completion of designated compulsory units. Students in such units will be required to repeat them and to attain at least the grade of pass (P) before progress to higher level units is permitted.

Several senior elective units have a restricted entry such as LAW430 International Mooting, LAW433 Law Journals, LAW438 Access to Justice Placement Program, LAW447 Special Interest Project and LAW532/533 Special Seminars. Entry to the Research Project units is also restricted.

Entry requirements

Applicants must have qualified for matriculation or for special or provisional matriculation. Students wishing to enrol in one of the Combined Law programs or the Distance Law course must also be selected for enrolment in that course. Students enrolled in other courses may choose to take individual units provided by Macquarie Law School, subject to the permission of the Dean of Law, or any restriction or prerequisite which may be imposed for that year on enrolment in a particular unit.

Entry to these programs will be limited, and students will be selected on merit. In addition to the places available to school leavers, some places are available to students already enrolled at this University or at other tertiary institutions as non-school leavers.

Applicants who have not attended a tertiary institution are considered for enrolment on the basis of their UAI. Applicants who have attended a tertiary institution will have their whole academic record taken into account.

Transfer from another university

Applicants who have completed units at another institution may apply for and obtain exemptions towards a combined degree. Although graduates may apply for admission, they will be required to complete the Combined Law program, subject to such advanced standing as may be granted. Since the maximum credit for previous studies for graduates of other institutions is 28 credit points, and because of prerequisites for 100-level, 200-level and 300-level law units, these students would require at least three and a half years of full-time study to complete the course.

Transfer within Macquarie University

A small quota of students not enrolled in a Combined Law program may be permitted to enrol in the first-year law units. Students must have completed 18 credit points or more at Macquarie University in a degree program to be eligible to apply. Those students permitted to enrol in this way, will be eligible for places in Combined Law if they attain at least the grade of 'P' in the first year law units. There are no deferments on these quota places. Quota students who fail either of the first year units will not be permitted to transfer into Combined Law. Information about such places and an application form may be obtained from Macquarie Law School in November. The quota may vary from year to year.

Quota places are very competitive. As a guide, students will normally require a UAI of at least 90 and/or a GPA of 3.0 to be selected into the quota.

Internal students can enrol only in a Combined Law program. However, a student who has completed the requirements for a degree outside of law may be awarded that degree and, upon subsequent completion of the remaining requirements of the combined program, be awarded the LLB separately.

Professional accreditation

Persons wishing to practise in New South Wales must satisfy the requirements for admission to the Supreme Court as a legal practitioner.

To qualify as a legal practitioner an applicant must either obtain an accredited degree in law or have completed satisfactorily the examinations conducted by the Legal

Practitioners Admission Board. The Combined Law programs and the Distance LLB from this University have been accredited.

After completion of the accredited law program candidates for admission as a legal practitioner must undertake further practical legal training which is available from a number of institutions.

Academic advice

Students interested in completing Combined Law should be aware that to progress in law programs the Pass Conceded grade is not considered a satisfactory completion of designated compulsory units. Students in such units will be required to repeat them and to attain at least the grade of 'P' before progress to higher level units is permitted.

LLB by Distance program

The LLB is a part-time program by distance education for mature-age students, designed to be completed in six years of part-time study. In each year of study students enrol part-time, although students may be given permission to proceed at a faster rate. A student's past academic performance and the coherency of the proposed increase in the academic workload will be assessed before permission is granted.

After satisfying the requirements for admission to the LLB program, candidates must obtain 74 credit points in law units. The compulsory and optional units are the same as those available to the internal students in the Combined Law program.

Entry requirements

The principles of admission to the program are given in the Application for Admission section on page 19 of this Handbook. Selection criteria are listed under the heading "Distance Education Bachelor of Laws" in the Degrees and Diplomas Offered section on page 127 of this Handbook, and in the Schedule of Programs of Study.

On-campus sessions

Students enrolled in the LLB by Distance must register within Macquarie Law School. They are required to attend on-campus sessions, usually two days in each half-year for each unit undertaken.

Students should take particular care when selecting electives in their final years to make sure there are no clashing of on-campus sessions. On-campus sessions are compulsory. On-campus session dates are provided in the Schedule of Undergraduate Units in Part 3 of this Handbook.

Exemption from attendance at these sessions will be granted only when application is made on grounds of illness or misadventure. Failure to attend an on-campus session associated with a unit without an exemption granted will result in the student being excluded from that unit and a failure being recorded against him or her. In those cases where exemptions are granted alternative work will be prescribed.

Award of LLB with Honours

Guideline Rules for the awarding of Honours in Law are as follows.

For students commencing their Law studies in 2003 and beyond:

- Eligibility for honours in the LLB is based on the calculation of a 'Course Weighted Average' (CWA) for all units studied at Macquarie University with the prefix LAW. The CWA is the sum of the scaled marks for each unit with the prefix LAW, multiplied by the credit points in that unit, summed across all units with the prefix LAW for which a scaled mark has been recorded, divided by the total credit points for the student in those units.
- The calculation of CWA will not include units studied at other universities, including units taken while on an international exchange program.
- A student must have completed a minimum of 44 credit points of units with the prefix LAW at Macquarie University to be eligible for graduation with honours.
- Students will graduate with First Class Honours if they have obtained a CWA of 76 or higher, and they have completed a LAW511 or LAW514 research project with a grade of at least a Credit.
- Students will graduate with Second Class Honours if they obtain a CWA of 71 or higher.

For students who commenced their Law studies prior to 2003:

In order to obtain honours in the LLB a student must obtain a GPA of 3.0 in all units taken with the prefix LAW, save in exceptional circumstances, and either:

- to gain First Class Honours, must obtain at least 52 credit points at 'A' or 'D' or 'HD' level in units with the prefix LAW
- to gain Second Class Honours, must obtain a GPA of 3.6 in units with the prefix LAW worth 36 credit points which must include 12 credit points from required law units.

Macquarie Law School enquiries

Room: W3A 531
Phone: +61 2 9850 7098
Fax: +61 2 9850 7686
Email: law@law.mq.edu.au
Website: www.law.mq.edu.au

Faculty of Business and Economics

The Faculty of Business and Economics provides a range of undergraduate units in economics, marketing, business administration, business law, accounting, applied finance, demography and actuarial studies.

While a major study in this Faculty may be combined with studies from other Faculties, and include units in, for example, languages, sociology, politics, philosophy, psychology, statistics or computing, it is possible for students intending to become specialist economists, accountants, actuaries or demographers to undertake most of their work for the Bachelor degree in this Faculty. Such programs of study may be broadly similar to the pattern followed for the degree of Bachelor in other universities, but greater flexibility is possible within the Macquarie structure.

Although a first degree is essentially of an analytical and general education character, the successful completion of such a degree course provides a basic qualification for a variety of careers in the business and public service spheres, and for teaching. It is also preparatory training for specialised and advanced study at graduate level.

The Departments within the Faculty are:

Department of Accounting and Finance
Department of Actuarial Studies
Department of Business
Department of Business Law
Department of Economics

Degrees offered

The specialist undergraduate degrees offered by the Faculty are the Bachelor of Applied Finance, Bachelor of Business Administration, Bachelor of Commerce, Bachelor of Economics, Bachelor of International Business and Bachelor of Human Resource Management.

Students should note that there is a difference between specific named degrees such as Bachelor of Commerce – Accounting and Bachelor of Commerce – Marketing and a coherent study in those areas within the Bachelor of Commerce, which would not be specified on the testamur.

Some Bachelor of Economics and Bachelor of Commerce programs are also valid Bachelor of Arts programs, and therefore a candidate may choose to graduate with the Bachelor of Arts. This option may be of particular interest to students who wish to combine some economic and financial studies with studies in the behavioural sciences or history, especially if an interest in an interdisciplinary area such as economic history is held. In principle, combinations with any other areas of study may be chosen.

The following degrees are offered by this Faculty and its departments:

Bachelor of Applied Finance
Bachelor of Arts
Bachelor of Business Administration
Bachelor of Business Administration (International)
Bachelor of Commerce
Bachelor of Commerce – Accounting
Bachelor of Commerce – Actuarial Studies
Bachelor of Commerce – Marketing
Bachelor of Economics
Bachelor of Human Resource Management
Bachelor of International Business
Bachelor of Science
Bachelor of Social Science
Graduate Certificate in Business
Graduate Certificate in Marketing

Double degrees

The following double-degree programs can be completed in four years of full-time study.

Bachelor of Applied Finance with Bachelor of Commerce – Accounting
Bachelor of Applied Finance with Bachelor of Commerce – Actuarial Studies
Bachelor of Applied Finance with Bachelor of Economics
Bachelor of Business Administration with Bachelor of Arts, European Studies program
Bachelor of Business Administration with Bachelor of Arts – Psychology
Bachelor of Business Administration with Bachelor of Commerce – Accounting
Bachelor of Business Administration with Bachelor of Economics
Bachelor of Business Administration with Bachelor of Information Technology
Bachelor of Commerce – Accounting with Bachelor of Commerce – Actuarial Studies
Bachelor of Commerce – Actuarial Studies with Bachelor of Economics
Bachelor of Commerce – Actuarial Studies with Bachelor of Science

The following double-degree programs can be completed in five years of full-time study:

Bachelor of Engineering with Bachelor of Business Administration
Bachelor of Engineering with Bachelor of Commerce

Combined Law degrees

The following combined Law degrees can be completed in five years of full-time study.

Bachelor of Applied Finance with the Bachelor of Laws
Bachelor of Arts with the Bachelor of Laws
Bachelor of Business Administration with the Bachelor of Laws
Bachelor of Commerce with the Bachelor of Laws
Bachelor of Commerce – Accounting with the Bachelor of Laws
Bachelor of Commerce – Actuarial Studies with the Bachelor of Laws
Bachelor of Commerce – Marketing with the Bachelor of Laws

Areas of study

Programs in the following areas of study are offered by departments in the Faculty of Business and Economics.

Area of Study	Award	Department
Accounting	BCom	Accounting and Finance
	BCom-Accg	Accounting and Finance
	BCom-Accg BCom-Act Stud	Accounting and Finance; Actuarial Studies
	BCom-Accg LLB	Accounting and Finance
Actuarial Studies	BCom	Actuarial Studies
	BCom-Act Stud	Actuarial Studies
	BCom-Act Stud BEc	Actuarial Studies
	BCom-Act Stud BSc	Actuarial Studies
	BCom-Act Stud LLB	Actuarial Studies
Business	BBA	Business
	BBA (International)	Business
	BBA BA	Business
	BBA BA-Psych	Business
	BBA BCom-Accg	Accounting and Finance; Business
	BBA BEc	Business; Economics
	BBA BIT	Business
	BBA LLB	Business
	BHRM	Business
	BIntBus	Business
	GradCertBus	Business
Business Law	BA	Business Law
	BCom	Business Law
	BEc	Business Law
Demography	BA	Business
	BCom	Business
	BEc	Business; Economics
	BSc	Business
	BSocSc	Business
Economics	BA	Economics
	BCom	Business; Economics
	BCom LLB	Economics
	BEc	Economics
Finance	BAppFin	Accounting and Finance; Economics
	BAppFin BCom-Accg	Accounting and Finance; Economics
	BAppFin BCom-Act Stud	Accounting and Finance; Actuarial Studies; Economics
	BAppFin BEc	Accounting and Finance; Economics
	BAppFin LLB	Accounting and Finance; Economics
	BCom	Accounting and Finance; Economics
	BCom LLB	Accounting and Finance; Economics
Marketing	BCom	Business
	BCom-Mktg	Business
	BCom-Mktg LLB	Business
	GradCertMktg	Business
Population Studies	BA	Business
	BSocSc	Business

Academic advice

Academic advice is available to all students at enrolment and is available at subsequent stages for any students seeking to design programs towards a specific degree.

The emphasis in modern economic and business studies is increasingly quantitative, and many of the units offered reflect this emphasis. Accordingly many of the programs of study in the Faculty require a standard of mathematics equivalent to HSC Mathematics (Band 2) or Mathematics Extension 1 or Extension 2. Students with less knowledge may have difficulty with key subjects. However, students with less than this level of mathematics may still undertake a program of study in some disciplines by completing introductory mathematics units prior to enrolment in 200-level units. Students should refer to prerequisites for units listed in the Schedule of Undergraduate Units in Part 3 of this Handbook and seek academic advice. For actuarial studies a higher level of mathematics is required.

All areas of study require English language competency. Assistance is available for students with lower-level writing skills. Students who need to improve their English language skills are advised to enrol in CAPP100 Communication for Academic and Professional Purposes 1 and CAPP101 Communication for Academic and Professional Purposes 2.

For further details about the availability of writing skills courses, remedial assistance for English, and introductory mathematics and computing courses, refer to Part 1 of this Handbook.

It is also important for graduates to have some knowledge of the use and potential of computers in areas of study within the Faculty. All students majoring in the Faculty are strongly advised to include in their program ISYS123 or ISYS114 or COMP115 in addition to those units formally required as prerequisites.

The Faculty strongly encourages students to enhance their thinking and reasoning skills by completing the unit PHIL137 Critical Thinking.

The essential difference between the Bachelor of Commerce and Bachelor of Economics degrees is that the Bachelor of Economics requires a minimum number of credit points in units with an ECON prefix at 200 level and above, including ECON232. Students may graduate with a Bachelor of Commerce even with a strong economics content. However, students in the disciplines of business law, demography and statistics are required to specifically plan in order to satisfy the Bachelor of Engineering requirements.

Transfer between degrees

Any student wishing to change his or her degree to another degree must meet the requirements set out in Part 1 of this Handbook, and a *Request to Transfer Degree Course* form must be completed.

Students enrolled for other Macquarie University degrees who wish to transfer to the Bachelor of Commerce – Accounting, Bachelor of Commerce – Actuarial Studies, Bachelor of Commerce – Marketing, Bachelor of Economics, Bachelor of Applied Finance, Bachelor of Commerce or Bachelor of Business Administration may apply for admission through UAC; or use an internal transfer mechanism.

Degrees, programs and units

Degree descriptions are provided below in the entry for the relevant department. Approved programs of undergraduate study are listed in the Schedule of Programs of Study in Part 3 of this Handbook. The units of undergraduate study are listed in the Schedule of Undergraduate Units, and brief descriptions are given in the section entitled Descriptions of Undergraduate Units.

Faculty of Business and Economics enquiries

Room: E4B 106
Phone: +61 2 9850 8450
Fax: +61 2 9850 9958
Email: eric@efs.mq.edu.au
Website: www.mq.edu.au/businessandeconomics

Interdisciplinary Studies

Bachelor of Applied Finance

The Bachelor of Applied Finance degree is a Faculty degree comprised largely of units offered by the Department of Economics and the Department of Accounting and Finance.

From a macroeconomic perspective, finance is the practical application of economics. The Bachelor of Applied Finance program is a specialist undergraduate finance program which provides a broad theoretical background in finance and specific technical skills that are required for many career opportunities in the finance industry. Units in the program develop theory and analytical techniques and apply them to real finance industry situations. The program is taught by highly qualified and experienced staff with a thorough understanding of finance industry practices.

Applied Finance graduates are well qualified for employment in finance and banking, both in Australia and internationally, and have excellent career opportunities in specialist financial institutions, treasury and finance departments of large private companies, security and currency trading, portfolio management, and general financial and investment advising.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Finance	Applied Finance	APFN01

Entry requirements

Entry to the Applied Finance program is available to those who meet the UAC admission requirements for the Bachelor of Applied Finance (or a double degree involving Applied Finance). Students enrolled in any other program at Macquarie University may transfer to the BAppFin when they have completed a minimum of 12 credit points with an overall GPA of 2.25 or above.

Professional recognition

The Bachelor of Applied Finance, taken with particular combinations of units, is approved by the Australian Securities and Investments Commission (ASIC) as meeting ASIC's training requirements in relation to RG 146. See www.asic.gov.au for more information on RG 146 and for the Bachelor of Applied Finance entry on the ASIC Training Register.

Honours program

Students with strong academic records are encouraged to enrol for an honours year. Honours graduates are expected to be able to solve a wide range of theoretical and practical problems in their work or academic environment.

As one of the primary purposes of the Honours program is the provision of research training, candidates for the Honours degree will have the opportunity to pursue, in depth, the investigation of a topic of interest to them, and to present the results of their research in the form of a dissertation. Staff will work closely with candidates at the beginning of their candidature in order to devise an interesting and accessible dissertation topic.

Double degrees

Students can enrol in four double degrees involving applied finance:

Bachelor of Applied Finance with Bachelor of Commerce – Accounting (FNN01)
Bachelor of Applied Finance with Bachelor of Commerce – Actuarial Studies (FNN02)
Bachelor of Applied Finance with Bachelor of Economics (FNN04, FNN05)
Bachelor of Applied Finance with Bachelor of Laws (FNCL02)

These programs are more demanding because they take longer to complete but they provide the more capable student with a distinct advantage in terms of enhanced career opportunities.

Applied Finance enquiries

Room: E4A 410
Phone: +61 2 9850 8488
Fax: +61 2 9850 6069
Email: finance@efs.mq.edu.au
Website: www.efs.mq.edu.au/undergraduate/degrees_by_name/baf

Department of Accounting and Finance

The Department is divided into two main disciplines: accounting and finance. These disciplines are closely related but are discussed in separate sections below.

Accounting

Accounting is said to be 'the language of business' and understanding that language is a key component in career advancement. Accountants are employed in all areas of commerce, industry and government.

In these areas accountants undertake a range of activities such as participating with top management in setting future directions for an organisation, analysing potential growth opportunities for new products and markets, developing management information systems to facilitate decision-making and organisational control, as well as reporting regularly to management and other stakeholders on the performance of the organisation.

In public practice, accountants provide technical advice on current accounting, taxation and other legislative requirements, audit financial statements of corporations and government entities, and provide services through management consulting businesses in a range of areas including mergers and acquisitions, share issues, and planning and control systems design.

Several programs of study are offered that lead to a degree in accounting. Many of these programs include the units that satisfy the requirements of the professional accounting bodies (called the professional accounting sequence).

Bachelor of Commerce

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Accounting	Accounting	ACC01

Students who do not wish to obtain professional accounting qualifications but still want to complete an accounting degree, must include in their programs a common sequence of units leading to the coherent study ACC01.

Entry requirements

To undertake a degree in accounting, students must be eligible to enrol in the entry unit ACCG100 Accounting 1A (or ACCG105 Introductory Financial Accounting).

Bachelor of Commerce – Accounting

The Bachelor of Commerce – Accounting is recognised as satisfying the tertiary educational requirements for entry into the CA, CPA and NIA programs.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Accounting	Professional Accounting	ACCG03

Elective units can be chosen from but are not limited to those listed below:

100 level

MKTG101; ECON141; DEM127; PSY104; PSY105; PHIL137; PHIL134; GEOS111; GEOS118; HIST109; HIST115

200 level

ACCG223; ACCG256; MKTG202; MKTG203; DEM256; ECON200; ECON201

300 level

ACCG329; ACCG330; ACCG350; ACCG352; ACCG353; ACCG355; ACCG356; BUSL333; BUSL350; BUSL388; DEM355; DEM356; ECON303; ECON349; ECON350; ECON359; ECON360; MKTG302; MKTG303; MKTG304

Status with professional bodies

There are a number of professional bodies that recognise Macquarie University's accounting degree including CPA Australia, the Financial Services Institute of Australasia (FINSIA), the Institute of Chartered Accountants in Australia (ICAA), the National Institute of Accountants (NIA) and the Tax Agents' Board.

CPA Australia

Macquarie University graduates who have completed the professional accounting sequence may be eligible for Associate (ASA) Membership with CPA Australia. Students are advised to contact CPA Australia concerning its policy in relation to conceded/terminal passes. In order to proceed to the status of CPA, students must also complete at least three years of appropriate professional experience and CPA Australia's CPA Program.

Institute of Chartered Accountants in Australia (ICAA)

Macquarie University graduates who have completed the professional accounting sequence may be eligible to enrol in the Institute's professional program that leads to qualification as a chartered accountant. To undertake the Chartered Accountant (CA) program, candidates must be working for a firm of chartered accountants or an approved commercial/industrial firm.

Financial Services Institute of Australasia (FINSIA)

A graduate who is working in the financial services industry is eligible for Associate membership of FINSIA.

National Institute of Accountants (NIA)

Macquarie University graduates who have completed the professional accounting sequence may be eligible for Associate (ANIA) Membership with the National Institute of Accountants. In order to proceed to the status of Professional National Accountant (PNA), students must complete the NIA Program (which includes a Mentor Program).

[**Note:** Students transferring to Macquarie University who wish to have qualifications obtained at other tertiary institutions considered for accreditation by CPA Australia, ICAA or the NIA are reminded that it is the student's responsibility to ensure that these qualifications are acceptable to CPA Australia, ICAA or the NIA.]

The Tax Agents' Board

Graduates wishing to become registered tax agents should contact The Tax Agents' Board for registration details.

Finance

The finance programs will appeal to those seeking careers in retail or commercial banking, corporate treasury, stockbroking and investment analysis or in the finance/treasury departments of the public sector. Finance studies at Macquarie University are not located within a single discipline, but are taught cooperatively by several departments. This structure recognises the interdisciplinary nature of finance, and allows students to combine studies in finance with complementary studies in economics, accounting and actuarial studies.

Bachelor of Commerce

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Finance	Finance	FNN06

Double degrees

Students can enrol in double degrees that include the accounting degree. These double degrees are:

Bachelor of Commerce – Accounting with Bachelor of Laws (ACCL01)
Bachelor of Applied Finance with Bachelor of Commerce – Accounting (FNN01)
Bachelor of Business Administration with Bachelor of Commerce – Accounting (BUSN53)
Bachelor of Commerce – Accounting with Bachelor of Commerce – Actuarial Studies (ACC03)

These programs are more demanding because they take longer to complete but they provide the more capable student with a distinct advantage in terms of enhanced career opportunities.

The double degree Bachelor of Commerce with Bachelor of Laws (LAW07) is also available over five years of

full-time study or the equivalent part-time study. Students may achieve professional recognition in accounting by completing the professional accounting sequence (omitting units in Business Law but including LAW204 Contracts, LAW406 Business Organisations, and LAW503 Taxation).

Conversion program for non-accounting graduates

A conversion program is available for graduates in other disciplines who wish to meet the tertiary education requirements of the professional accounting bodies (CPA Australia and ICAA). Applicants are required to hold a degree from a recognised university in addition to having an adequate standard of academic English. Completion of the graduate conversion program normally qualifies graduates for the award of the Postgraduate Diploma in Accounting. Details are available from the Faculty's Graduate Studies Office, phone +61 2 9850 8475.

Honours program

An honours program in accounting and finance is available to students with good academic records who wish to acquire research skills and to enhance their critical thinking and analytical and problem-solving skills in their chosen areas of study. An honours degree can enhance a student's employment and career advancement prospects and provide a student with greater career options including a possible career in universities, or in the research arms of professional accounting and financial institutions.

An honours program takes one year full-time. The program is individually tailored to suit each student's preferences and needs, and comprises coursework and a research project. All students in the program take a research methods unit in either accounting or finance. The number of students in the honours program is limited, and each student receives a high level of individual faculty member time and support. Each student is assigned a faculty member as mentor and supervisor to guide them in the development and conduct of the research project. A limited number of financial scholarships are available on a competitive basis and part-time tutoring is also available to provide further financial support for the honours year.

Students interested in learning more about the honours program in accounting and finance should contact the conveners of the program, Dr Ed Watts at edward.watts@mq.edu.au or Geoff Loudon at geoff.loudon@mq.edu.au.

Department of Accounting and Finance enquiries

Room: E4A 324/325
Phone: +61 2 9850 8511/8535
Fax: +61 2 9850 8497
Email: accounting@efs.mq.edu.au
Website: www.accg.mq.edu.au

Department of Actuarial Studies

Actuaries analyse and manage the risks of financial contracts. The actuary's work is based on the application of mathematical, statistical, economic and financial analysis to a wide range of practical problems in long-term financial planning and management. Actuaries act as financial advisers to a wide range of commercial organisations such as life, general (non-life) and health insurance companies, superannuation funds, banks and stockbrokers as well as governments. In recent years a growing number of actuarial graduates have been employed by banks, merchant banks, funds management companies and software development companies.

Actuaries require a sound theoretical training, but of more importance is the ability to exercise proper professional judgment in dealing with the many practical problems encountered. The ability to express conclusions in clear and concise language is essential.

Bachelor of Commerce – Actuarial Studies

The Bachelor of Commerce – Actuarial Studies degree may be completed in three years of full-time study giving students the possibility of exemption from Part I of the Institute of Actuaries of Australia (IAAust) examinations.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Actuarial Studies	Actuarial Studies	ACT10

Double degrees

Double degree programs allow students to gain exemption from both Part I and Part II of the IAAust examinations and to complete a second major. They are four-year programs except for the double degree with accounting which may take four and a half years if all the exemptions from the professional actuarial exams are to be obtained. The following are offered:

Bachelor of Applied Finance with Bachelor of Commerce – Actuarial Studies (FNN02)
Bachelor of Commerce – Accounting with Bachelor of Commerce – Actuarial Studies (ACC03)
Bachelor of Commerce – Actuarial Studies with Bachelor of Economics (ACT03, ACT04)
Bachelor of Commerce – Actuarial Studies with Bachelor of Science (ACT05, ACT12, ACT14)

The Bachelor of Commerce – Actuarial Studies with Bachelor of Laws (LAW15) requires six years of full-time study if all the actuarial exemptions are to be obtained. The recommended actuarial studies program is completed in years one to four together with the 100-, 200- and 300-level LAW units. The Bachelor of Laws is completed in years five and six.

For details of the Bachelor of Laws program, see the entry for Macquarie Law School in this Part of this Handbook and the entry for coherent study LAW15 in the Schedule of Programs of Study.

Entry requirements

Entry into the actuarial program is restricted by quota. Students are guaranteed a place in ACST151 Introduction to Actuarial Studies only if admitted to the Bachelor of Commerce – Actuarial Studies program or the associated double degrees. A UAI above 97.5 is recommended. The program is advised only for students who have completed HSC Mathematics Extension 2, HSC Mathematics Extension 1 (with a very high mark), or an equivalent mathematics subject. Although there is no formal requirement for a minimum result in English, students are reminded that actuaries need excellent skills in written communications.

Applicants transferring from a tertiary institution will have their whole academic record taken into account. Graduates may be able to complete a degree in less than three years.

Continuing students may transfer to the Bachelor of Commerce – Actuarial Studies if they meet the requirements set out in Part 1 of this Handbook.

Professional accreditation

Units offered in actuarial studies are designed to provide the necessary theoretical training in such topics as mathematics of finance, actuarial techniques in life insurance, non-life insurance and mortality studies, and the professional considerations involved in actuarial management.

In general only Fellows of the Institute of Actuaries of Australia, the Institute of Actuaries (London), the Faculty of Actuaries (Edinburgh) or the Society of Actuaries (USA and Canada) are permitted to practise as actuaries in Australia. The examinations of the Institute of Actuaries of Australia (IAAust) comprise three parts. A Bachelor of Commerce – Actuarial Studies graduate who has obtained sufficiently high grades in the relevant units may be granted exemption from the Part I and Part II subjects of the IAAust. Overseas students may be granted exemption from Subjects CT1 to CT8 of the London Institute or Faculty examinations, which are equivalent to Part I of the IAAust examinations.

The professional qualification, Fellow of the Institute of Actuaries of Australia (FIAA), requires completion of Part III by distance education through the IAAust. There are compulsory modules in investments and in commercial actuarial practice and a choice of two modules from one of four practice areas. The practice areas are life insurance, general insurance, global retirement income system, and investment management and finance. No exemptions are available from Part III which is usually studied part-time after completion of the Macquarie program.

The FIAA is widely recognised in countries that do not have their own local system of actuarial qualification, including New Zealand and many parts of Asia. Mutual recognition agreements also exist with the professional bodies in Britain and North America, so that FIAAs are fully qualified as actuaries in those regions after a short period of work experience.

Academic advice

Recommended programs for all actuarial studies degrees are available from the Department's website.

Honours program

Students contemplating an honours year should discuss their program with the coordinator of the honours program, preferably by the end of their second year. A suitable program of coursework, reading and research work will be devised for each student and will normally consist of the units ACST400 Actuarial Control Cycle 1 and ACST401 Actuarial Control Cycle 2, some further coursework and a thesis.

Note that the honours program can only be commenced in the first semester of the academic year and requires one year of full-time study or, in special circumstances, two years of part-time study.

Department of Actuarial Studies enquiries

Room: E4A 619
Phone: +61 2 9850 9987
Fax: +61 2 9850 9481
Email: please seethe enquiries form on our website
Website: www.actuary.mq.edu.au

Department of Business

There is increasing demand in both private and public sectors for employees with comprehensive business training. The pressures upon business for increasing internationalisation and competitiveness mean that more and more emphasis is being placed on modern management skills.

The Department of Business offers courses in business administration, demography, human resource management, international business and marketing and related disciplines that equip students with the skills needed in a modern business environment.

Bachelor of Business Administration

The Bachelor of Business Administration (BBA) is an interdisciplinary course. The BBA provides a broad and comprehensive preparation for students wishing to pursue a career in business management without undertaking a full specialisation in such subject areas as accounting or economics. The Bachelor of Business Administration (International Studies) has a similar program of study to the BBA but requires a semester's overseas study as a component of the degree program.

With the range of elective subjects available, the degree provides diverse career opportunities in the private and public sectors—for example, in accounting, banking, business management, consulting, computing, financial management, human resource management, international business, marketing, recruitment and staff development.

Travel scholarships

Each year, Macquarie University will offer ten BBA (International Studies) travel scholarships of up to $A3500 each to cover fares of final-year students to approved overseas institutions. These competitive scholarships will be awarded on the basis of academic performance in the BBA (International Studies) and the student's proposed travel program.

Majors and coherent studies

The following programs satisfy the requirements for these degrees.

Area of Study	Coherency	Code
Business	Business	BUS01
Business	International	BUS02

Bachelor of Business Administration with Bachelor of Laws

The BBA LLB double degree program provides a powerful joint qualification in business and law. It entails the full LLB sequence (with some change in the order in which units are undertaken), together with the full core component of the BBA. For further information see the Macquarie Law School entry under the Faculty of Arts in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Business	Business & Law	BUS04

Bachelor of Business Administration with Bachelor of Commerce – Accounting

This accelerated double degree program permits students to complete the full BBA program together with a coherent study in accounting. It meets the tertiary education requirements of both CPA Australia and the Institute of Chartered Accountants in Australia. For more information see the entry for the Department of Accounting and Finance in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Business	Business Accounting	BUSN53

Bachelor of Business Administration with Bachelor of Economics

Students undertaking this accelerated double-degree combination complete both the full BBA program and a coherent study in economics. For more information see the entry for the Department of Economics in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Business	Business & Economics	BUS03

Bachelor of Business Administration with Bachelor of Information Technology

This double degree program, by combining technology with commerce, prepares students for a career in information technology and business. There is high demand for people with both qualifications. Career choice includes business analysis, systems analysis, systems development and many other areas where technology and business understanding are fundamental to creating wealth and opportunity. For more information see the entry for the Department of Computing in the Faculty of Science in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Business	Business and Information Technology	BUSN54

Bachelor of Business Administration with Bachelor of Arts

European Studies program

This double degree aims to develop a broad based understanding of business, coupled with comprehensive study of a European language. Units will be offered in European business, history and culture. The University will offer the opportunity for a semester's study abroad with travelling scholarships available to the top students. This degree is able to accommodate students with no prior knowledge of a foreign language as well as those with previous experience. For more information see the entry for the Department of International Studies in the Faculty of Arts in this Part of this Handbook.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Study Pattern	Code
Business	European Business and Language Studies A	BUSN50
	European Business and Language Studies B	BUSN51

Bachelor of Business Administration with Bachelor of Arts – Psychology

This four-year program provides a joint qualification in business and psychology, with the possibility of proceeding to the Honours program in either business or psychology. The program is the same as that leading to the straight BBA, except that students must take the elective in Organisational Psychology. The Psychology component of the double degree is equivalent to the Bachelor of Arts – Psychology. For more information see the entry for the Department of Psychology in the Faculty of Human Sciences in this Part of this Handbook.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Study Pattern	Code
Business	Business and Psychology	BUSN52

Bachelor of Engineering with Bachelor of Business Administration

Students undertaking this accelerated double-degree combination complete both the full BBA program and a coherent study in Engineering. For more information see the entry for the Department of Engineering in the Faculty of Science in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Engineering	Engineering and Business	EGG20

Bachelor of International Business

This degree will give the students an academic background in topics that underpin international business decisions and give them a thorough understanding of why international business is different and how opportunities for international business occur. Students will get an opportunity to consider the underlying socio-cultural factors and differences in the international business environment, to explore these factors and differences and to consider their implications for business decisions in both an international and an Australian context.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Business	International Business	INBU01

Demography

Demography studies the changing size and composition of human populations, their causes and consequences. Aspects of the composition of population of interest to demographers include sex ratios, age structure, ethnic structure and family structure. The causes of population change include fertility, mortality, migration, age change, marriage and social mobility. The consequences of such changes are wide-ranging.

In Australia, demographers are employed in planning departments, public service departments such as the Australian Bureau of Statistics and the Department of Immigration and Citizenship, or are working in academic or other research institutions. There is also an increasing demand for trained demographers in the market research and development and planning sections of business enterprises.

The core program in demography consists of the following units:

100 level

DEM127

200 level

DEM255; DEM256

300 level

DEM355; DEM356

Students with a substantial interest in the study of human population problems and issues are advised to also take

population-oriented units offered in complementary subjects such as anthropology, economics, human geography, marketing, sociology or statistics or other units in the population studies programs.

Majors and coherent studies

The following programs satisfy the requirements for the Bachelor of Arts, Bachelor of Commerce, Bachelor of Science, Bachelor of Social Science or Bachelor of Economics degrees.

Area of Study		Coherency/Study Pattern	Code
Demography	BA	Demography – Pattern 1	DEM01
		Demography – Pattern 2	DEM06
	BCom	Demography	DEM07
	BSc	Demography	DEM08
	BSocSc	Demography	DEM09
	BEc	Demography and Economics	DEMG01
Population Studies	BA	Population Studies	PPL05
	BSocSc	Population Studies	PPL11
	BA	Population Studies	PPL12

Bachelor of Human Resource Management

This degree explores the management of people and change in contemporary workplaces. A strong emphasis is placed on the psychology of learning and the processes and techniques of developing a learning organisation. Students will also gain a strong understanding of the sociology of work and organisational behaviour in the workplace. Contemporary managers need to analyse global work structures and how individual and organisation needs are managed across global boundaries and global cultures.

The degree is also designed to develop change agent skills. The capacity to analyse and interpret different change environments is fundamental to success in this area. Modern human resource managers require coaching and consulting skills as the traditional human resource management function has shifted in recent years. The program of study has a final work experience unit where students spend time in an organisation, practising and working on a human resource management project and refining their skills and competencies. The practical component thus provides students with working experience in human resources before completing their degree and is an additional bonus of the new structure. The first year of the program is a fixed course of study covering fundamental human resource issues coupled with introductory psychology units. Students, however, can study four units of electives equal to 12 credit points over the full program.

Macquarie University already has access to many large companies that are actively involved with university programs. Some of these will be participants in the work-study program in the final year. Opportunities may be available as a result of these placements although in every case, graduates will be responsible for promoting their own careers. Many large organisations also have graduate programs in human resource management and it is envisaged that graduates will be well positioned to take advantage of such opportunities.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Business	Human Resource Management	HRMT01

Marketing

Marketing involves understanding and anticipating customer needs and wants, then satisfying those needs in a way that generates a long-term flow of profit for the marketing organisation. The balance of the benefits a customer receives from a product or service minus the full cost of acquiring and utilising it, is termed customer value or satisfaction. The marketer generates the best flow of profit by offering the greatest long-term value to the customers.

Demand for marketing skills flows across all sectors of the economy, from the traditional marketers of consumer goods, to the rapidly growing services sector, to government and the not-for-profit sector. Organisations are recognising the need for marketing expertise, the ability to accurately identify customers and their needs, and to turn target groups into long-term loyal customers or supporters.

Marketing studies at Macquarie University provide a strong grounding in marketing theory, reinforced by analysis of the best current marketing practice both in Australia and internationally.

Bachelor of Commerce

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency/Study Pattern	Code
Marketing	Marketing and Organisational Behaviour	MKT04
	Marketing & Demography	MKTG02

Bachelor of Commerce – Marketing

The Bachelor of Commerce – Marketing is a specialist degree which explores marketing principles and current issues in the greatest depth.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency/Study Pattern	Code
Marketing	Marketing	MKT01

Professional Accreditation

As a commercially relevant degree, the Bachelor of Commerce – Marketing satisfies the academic requirements for associate membership of the Australian Marketing Institute.

Bachelor of Commerce – Marketing with Bachelor of Laws

Students can enrol in a five-year combined law degree which includes the Bachelor of Commerce – Marketing. For more information on this degree see the entry for Macquarie Law School in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Marketing	Marketing & Law	MKT10

Honours program

The Business Department offers honours programs in business administration, human resource management, international business, demography and marketing. Entry to the program is selective, with students who have completed a Bachelor degree in Business normally accepted into the program only if their GPA is at least 2.5 overall and at least 3.0 at 300 level. The program comprises coursework and a major research project.

There are six units in the Honours program, comprised of two compulsory units—Honours Research Seminar and one research methods course in statistics from STAT270, STAT273, STAT328 or STAT373. The statistics research methods course must be negotiated with, and approved individually, by the Honours coordinator. In addition students must take one elective from BUS800-BUS849, 800-level DEM units and MKTG802-MKTG814. Finally, an original piece of research (thesis) of approximately 15,000 words must be completed. This thesis is worth the equivalent of three units. The program requires full-time enrolment and accepts students only in the first semester of the academic year.

Semester 1

BBA401

Two approved elective units

Semester 2

Thesis equivalent to three units

Graduate Certificates

Graduate Certificate in Business

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Business	Business	BUSN40

Graduate Certificate in Information Systems and Technology

Majors and coherent studies

The following program satisfies the requirements for this award.

Area of Study	Study Pattern	Code
Information Technology & Computing	Information Technology	INFT10

Graduate Certificate in Marketing

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency/Study Pattern	Code
Marketing	Marketing	MKTG20

Department of Business enquiries

Room: E4A 624
Phone: +61 2 9850 8583
Fax: +61 2 9850 6065
Email: business@efs.mq.edu.au
Website: www.bus.mq.edu.au

Department of Business Law

The Department teaches law to students enrolled in a range of degrees such as Bachelor of Arts; Bachelor of Applied Finance with the degree of Bachelor of Commerce – Accounting; Bachelor of Business Administration; Bachelor of Business Administration with the degree of Bachelor of Arts; Bachelor of Business Administration with the Degree of Bachelor of Arts – Psychology; Bachelor of Business Administration with the degree of Bachelor of Commerce – Accounting; Bachelor of Business Administration with the degree of Bachelor of Economics; Bachelor of Business Administration with the degree of Bachelor of Information Technology; Bachelor of Commerce; Bachelor of Commerce – Accounting; Bachelor of Economics; and Bachelor of Human Resources Management.

Graduates work in a wide range of businesses such as accounting practices, financial institutions, regulatory agencies, marketing, management and business consultancies. The business law units aim to alert and inform prospective professionals to legal issues arising in commerce and professional accounting practice.

More specific objectives include reinforcing an understanding of the fundamental ideas in the law; focusing on the institutions of the law; developing knowledge of specific rules and principles in certain branches of the law; continuing the development of the basic skills of legal analysis, through the eliciting and application of the law to hypothetical fact situations; and developing general skills of research, analysis and written and oral communication in the context of a language based discipline.

The great majority of students taking units in business law do so as part of their education towards a professional career. A specialisation in BUSL250 Business Law, BUSL301 Corporations Law and BUSL320 Revenue Law leads to recognition by the professional accounting bodies when taken as part of the professional accounting sequence. These qualifying units cover basic legal concepts and techniques, commercial law, company law and revenue law. Other study opportunities are also available, either instead of or in addition to business law study for accounting purposes. These include a business law major.

Programs of study in business law

The following programs satisfy the requirements for the following degrees.

Area of Study	Coherency	Code
Business Law BA	Business Law	BSL01
	Business Law and Economics	BSL02
BCom	Business Law and Economics	BSL03
BEc	Business Law and Economics	BSL06

Both BUSL201 Law in Australian Society and BUSL250 Business Law are required for these coherent sequences.

Business Law for Professional Accounting

Students must study BUSL250 Business Law in order to study BUSL301 Corporations Law which, in turn, is a prerequisite for BUSL320 Revenue Law.

Business Law for Risk Management and Corporate Government

BUSL304 Business Ethics and Risk Management. This unit is designed to present students with an understanding of business ethics, risk management and corporate governance.

Business Law for Asian Studies and European Community Law

Recommended units are BUSL377 Japanese Trade Law, BUSL379 European Trade Law and BUSL388 China Trade and Investment Law. For more information see the Descriptions of Undergraduate units in Part 3 of this Handbook.

Business Law for Labour Relations Studies

BUSL333 Human Resources Law is recommended for the Economics sequence in labour studies and is a required unit for the coherent study in labour relations.

Business Law for Financial Management

Although not part of the Financial Management sequence, students could also consider BUSL301 Corporations Law in addition to BUSL250 Business Law.

Legal Studies in the Secondary School

Students wishing to gain 8 credit points at 200 level or above in relevant law units should seek advice from the Department of Business Law. Generally, it would be advisable to begin by studying both BUSL201 Law in Australian Society and BUSL250 Business Law in the same year of study.

Majors and coherent studies

Business Law Major

A minimum of six business law units must be studied in order to meet the requirements for a Bachelor of Arts degree. None of the business law units are offered to first year students.

The following units are compulsory:

BUSL201; BUSL250; BUSL315

And any three other 300-level units from:

BUSL301; BUSL320; BUSL333; BUSL350; BUSL377; BUSL379; BUSL388

Department of Business Law enquiries

Room: W3A 438
Phone: +61 2 9850 8452
Fax: +61 2 9850 9952
Email: alma.urbiztondo@mq.edu.au
Website: www.mq.edu.au/businessandeconomics

Department of Economics

Economics is the study of how societies deal with problems resulting from relative scarcity, ie problems of allocation, distribution, stability and growth. It involves the analysis of production, distribution and use of goods and services in all types of societies. It is concerned with how economic systems are organised and with how decisions are made by individuals, business firms and governments. Studies in economics may lead to a variety of careers in industry, commerce, banking, education and government service.

The Department of Economics offers a wide range of courses in economics. The degree structure is flexible and encourages interdisciplinarity, allowing students to include in their program a number of units offered by other departments and Faculties in the University. As examples, economics students can develop interests in finance, accounting, marketing, business law, computing, politics, philosophy, history, mathematics, psychology, and education. Students may take a couple of units in these other areas, or they may develop them into a second major or (in some cases) into a double degree.

On the other hand, many students elect to pursue a more 'traditional' degree in economics with relatively few units taken from those on offer in other in other Departments.

The advantage of the Macquarie system is that it allows students to construct a program which not only satisfies the academic requirements of the degree, but also reflects the interests and aspirations of the student.

Bachelor of Arts

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency/Study Pattern	Code
Economics	Applied Econometrics	ECN01
	Economics	ECN05
	Japanese Economy and Language	ECN06
	Economics and Marketing	ECN07
	Business Law and Economics	BSL02

Bachelor of Commerce

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Economics	Applied Econometrics	ECN03
	Economics	ECN08
	Japanese Economy and Language	ECN09
	Economics and Marketing	ECN14
	Business Law and Economics	BSL03
Finance	Finance	FNN06

Bachelor of Economics

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Economics	Applied Econometrics	ECMT03
	Economics and Marketing	ECN15
	Economics	ECN16
	Japanese Economy and Language	ECN17
	Economics	ECOS02
	Statistics and Econometrics	ECOS04
	Business Law and Economics	BSL06
Demography	Demography and Economics	DEMG01

Double degrees

The following Economics double-degree programs can be completed in four years of full-time study or the equivalent part-time study:

Bachelor of Applied Finance with Bachelor of Economics (FNN04, FNN05)
Bachelor of Business Administration with Bachelor of Economics (BUS03)

The following combined-degree programs can be completed in five years of full-time study:

Bachelor of Commerce with Bachelor of Laws (ECOL02, FNCL01, LAW07)
Bachelor of Engineering with Bachelor of Commerce (ENGG20, ENGG25)

Academic advice

All students majoring in economics must include in their programs a common sequence of units leading to the required coherent study above 200 level.

At each of 100, 200 and 300 levels in, students complete a core unit in both macroeconomics and microeconomics. A 100-level econometrics unit is included, (and an additional 200-level econometrics unit for students completing the Bachelor of Economics), as well as a 100-level statistics unit. A 200-level unit in public sector economics completes the list of prescribed core units.

To complete the specific requirements of the degree, students must include two 300-level ECON units. Bachelor of Commerce and Bachelor of Economics students must also include two 300-level units designated as commerce or economics units in the Schedule of Undergraduate Units. Additional required units are specified according to the coherent study being completed.

Students who lack the mathematics background of HSC Mathematics (Band 2) or Mathematics Extension 1 or Extension 2 will be required to complete either MATH123 or MATH130 as an elective, before enrolling in 200-level ECON units.

In addition there are several units which, though not essential in the sense of being required to achieve a coherent study, are nevertheless highly desirable for inclusion in any economics program. These are ACCG105 and ISYS123 or ISYS114 or COMP115.

Students are free to choose units to complete their programs in any way that suits their particular requirements and interests (subject to the Bachelor Degree Rules). Most students majoring in economics take at least some further units in the economics subject area, and most also choose supplementary units from other fields. Some alternatives are suggested below:

General Economics

Additional units that might be considered as contributing to a broadly-based program include: ECON235; ECON240; ECON303; ECON312; ECON349; ECON350; ECON356; ECON359; ECON360; ECON385; ECON396 together with units from other Faculties, especially anthropology, history, philosophy, politics, psychology and sociology.

Professional Economics

Students contemplating careers as economists in government, business, banking or academia could include at least some of the following, in addition to the economics common sequence: ACST101; ACCG253; STAT279

and one or more 100-level units in mathematics, together with more than the minimum 12 credit points above 200 level in economics units. In particular, students may wish to develop a specialisation in areas of economics such as monetary economics, labour economics, economic development, econometrics, economic history, environmental economics, industry economics, or Asian economic studies.

Econometrics

There is a growing need for economics graduates to possess skills in the techniques of empirical analysis which is increasingly reflected in the qualifications desired for positions in such organisations as the Bureau of Statistics, Treasury, Reserve Bank, commercial and merchant banks and consulting companies. The econometrics sequence of study, therefore, serves to provide the student with such quantitative tools as are needed for the conduct of empirical economic analysis: ECON141; ECON232; ECON233; ECON332; ECON333

Economics and Commerce Teaching

Students who are taking the Bachelor of Arts with the Diploma of Education and wish to satisfy the NSW Department of Education requirements for promotion should carefully consult the *Teacher Education Program Student Guide* available from the Macquarie University Department of Education.

Social Implications of Economics

Programs with emphasis on the social implications of economics (economic development, economic and social welfare, the interface between economics and politics, etc) might include, in addition to the economics common sequence, the following units: DEM127; DEM255; DEM355; ECON235; ECON240; ECON312, ECON349; ECON359; ECON396

Labour Studies

Students whose primary interest lies in economics but who have a special interest in the field of labour studies would be advised to include the following units in their program: ECON240; BUSL250; BUSL333

Japanese Economy and Language

A coherent study leading to a Bachelor of Arts (ECN06) Bachelor of Commerce (ECN09) or Bachelor of Economics (ECN17), is offered in Japanese Economy and Language for students specialising in both economics and Japanese.

Finance/International Finance

The huge domestic and global finance sectors offer attractive employment opportunities for economics graduates specialising in finance/international finance. As our finance program spans several departments, students are advised to check unit prerequisites so that they are eligible to enrol in the following third-year finance units: ECON335; ECON350; ECON360; ACCG329; ACCG350; ACCG352; ACCG353

Honours program

Students with excellent academic records are encouraged to enrol for an honours year. Honours graduates are expected to be able to solve a wide range of theoretical and practical problems in their work environments.

A suitable program of coursework and research work is devised for each candidate. The coursework part of the program consists of five units of study including Advanced Macroeconomics, Advanced Microeconomics and ECON356 History of Economic Thought (if that unit has not already been taken as part of the undergraduate program). The remaining electives (two or three) will be chosen from a list of honours options made available at the beginning of the honours year.

Candidates for the honours degree will have the opportunity to pursue, at depth, the investigation of a topic of interest to them, and to present the results of their research in the form of a dissertation. The Economics Honours Coordinator, in conjunction with other members of staff, will work closely with candidates at the beginning of their candidature in order to devise an interesting and accessible dissertation topic.

Candidature is available on a full-time or part-time basis and cadetships to support honours study are sometimes made available by organisations such as the Reserve Bank of Australia, the Commonwealth Department of Finance and APRA. The Department of Economics also offers honours year scholarships for suitably qualified students. For further information contact the Economics Honours Coordinator Associate Professor Tony Bryant on +61 2 9850 8465 or at tony.bryant@mq.edu.au.

Department of Economics enquiries

Room: E4A 410
Phone: +61 2 9850 8488
Fax: +61 2 9850 6069
Email: economics@efs.mq.edu.au
Website: www.efs.mq.edu.au/departments/economics

Faculty of Human Sciences

The Faculty of Human Sciences brings together a diverse range of disciplines that share a common interest in human development, education, and healthy functioning across the lifespan. Incorporating the Departments of Education, Linguistics, and Psychology, along with the Institute of Early Childhood and the Institute of Human Cognition and Brain Science (formerly MACCS), the Faculty's mission is to provide a stimulating and integrative learning environment for students with a keen interest in the whys and wherefores of human behaviour in a variety of social contexts, including the family, school, and workplace.

Teaching within the Faculty of Human Sciences is underpinned by a thriving research culture, and the Faculty hosts a large number of specialist research centres including the Centre for Emotional Health, the Children and Families Research Centre, the Adult Migrant English Program Research Centre, and the Centre for Language Sciences. The Faculty is also home to a number of clinics that provide both student training and professional community services for problems such as anxiety and speech pathology. Many staff members within the Faculty are internationally recognised as leading researchers in their fields, and all staff are committed to the principle of research-led teaching. This guarantees exciting, state-of-the-art learning experiences for students in all the Faculty's programs.

Statements about the specific skills components of units taught within the Faculty are included in individual unit outlines. However, the following generic skills are considered integral to all undergraduate courses:

- effective written and oral communication skills;
- critical thinking skills;
- research design and data analytic skills;
- information technology skills;
- teamwork skills; and
- problem solving and time management skills.

In addition, the courses offered within the Faculty aim to enhance students' intercultural awareness and sensitivity, and to offer practical opportunities for both professional and personal development.

Areas of study

Programs in the following areas of study are offered by departments in the Faculty of Human Sciences.

Area of Study	Award	Department/Institute
Early Childhood Studies	BA	Early Childhood
	GDipEarlyChildhood	Early Childhood
Education	BA	Education
Linguistics	BA	Education; Linguistics
	BSc	Linguistics
	BSocSc	Linguistics
Medical Sciences	BMedSc	Psychology
Psychology	BA	Psychology
	BA-Psych	Psychology
	BA-Psych BHlth	Psychology
	BA-Psych DipEd	Psychology
	BA-Psych LLB	Psychology
	BBA BA-Psych	Psychology
	BPsych (Hons)	Psychology
	BSc	Linguistics; Psychology
	BSc-Psych	Psychology
	BSc-Psych BHlth	Psychology
	BSocSc	Psychology
	GDipPsych	Psychology
Speech and Hearing Science	BSpHearingSc	Linguistics
Teacher Education	BA DipEd	Education
	BEd (ECE)	Early Childhood
	BEd(Prim)	Education
	BEd(Sec)	Education
	BTeach (BS)	Early Childhood
	BTeach (ECS)	Early Childhood
	GDipEd	Education

Degrees offered

Bachelor of Arts
Bachelor of Arts with Diploma of Education
Bachelor of Arts – Psychology
Bachelor of Arts – Psychology with Bachelor of Health
Bachelor of Arts – Psychology with Bachelor of Laws
Bachelor of Arts - Psychology with Diploma of Education
Bachelor of Business Administration with Bachelor of Arts - Psychology
Bachelor of Education (Early Childhood Education)
Bachelor of Medical Sciences
Bachelor of Psychology (Honours)
Bachelor of Science
Bachelor of Science – Psychology
Bachelor of Science – Psychology with Bachelor of Health
Bachelor of Social Science
Bachelor of Speech and Hearing Sciences
Bachelor of Teaching (Birth to School Age)
Bachelor of Teaching (Early Childhood Services)

The following degrees are offered by the Faculty of Human Sciences for graduate students:

Bachelor of Education (Primary)
Bachelor of Education (Secondary)
Graduate Diploma in Early Childhood
Graduate Diploma in Education
Graduate Diploma in Psychology

Transfer between courses

Any student wishing to change his or her degree to another degree must meet the requirements set out in Part 1 of this Handbook, and a *Request to Transfer Degree Course* form must be completed.

Degrees, programs and units

Degree descriptions are provided below in the entry for the relevant department. Approved programs of undergraduate study are listed in the Schedule of Programs of Study in Part 3 of this Handbook. The units of undergraduate study are listed in the Schedule of Undergraduate Units, and brief descriptions are given in the section entitled Descriptions of Undergraduate Units.

Faculty of Human Sciences enquiries

Please refer to individual departments below for Faculty of Human Sciences contact details.

Website: www.mq.edu.au/humansciences

Department of Education

The community often thinks of education principally as what happens in schools, but a formal study of education takes a much broader perspective. Introductory units within the Department of Education raise major issues confronting contemporary Australian education set against an international background. They also introduce students to the range of educational studies offered in subsequent units.

Macquarie University has made a major contribution to the education of primary and secondary school teachers and because it has developed both the range and the depth of its research and teaching activities, the Department continues to play a very significant role in the education of teachers for the New South Wales education system.

Undergraduates wishing to teach follow the four-year full-time concurrent program (some of this may be on a part-time basis) leading to the Bachelor of Arts with the Diploma of Education, Bachelor of Arts – Psychology with the Diploma of Education, or Bachelor of Science with the Diploma of Education. Students enrolled in Bachelor of Business Administration, Bachelor of Commerce or Bachelor of Economics should seek academic advice regarding secondary teaching qualifications. Graduates with a major in at least one teaching subject and who wish to teach follow the Graduate Diploma in Education or the Bachelor of Education (Primary) or Bachelor of Education (Secondary) programs. These students undertake programs of study which are part of the University's Teacher Education Program.

Many intending teachers undertake their major study outside the Department of Education. Those planning to teach in secondary schools specialise in their teaching subjects. Those planning to teach in primary schools spread their major studies more widely, but should include a major study in education.

While most students undertaking units in education at Macquarie University do plan to teach, a significant number undertake their major studies in education and enter such fields as curriculum development, educational planning, continuing education, education and training of adults, and educational research. It is often necessary to have experience as a trained teacher in order to enter these fields.

Distance education program

Many EDUC units are available by distance, with the usual format of web-based lectures and some on campus attendance. It is possible to complete a coherent study in Education externally. In general TEP units are not available by distance offering.

Bachelor of Arts

The two 100-level education units are designed to provide an introduction to educational psychology and contextual studies in education. They can be completed in either order but both are needed to progress to 200 level. Units at 300 level provide further studies in these core areas, background for intending teachers, and in areas of particular educational relevance (eg Indigenous education, students with special needs).

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Education	Education	EDU01

Minimum course requirements are specified by the Bachelor Degree Rules that state, among other things, at least 18 credit points at 300 level or above.

Combined Bachelor Degrees and the Diploma of Education

The combined degrees of Bachelor of Arts with the Diploma of Education, Bachelor of Arts – Psychology with the Diploma of Education and Bachelor of Science with the Diploma of Education provide a set of units for prospective primary and secondary teachers. The Bachelor of Arts with the Diploma of Education may be awarded with Honours.

Major and coherent studies

The following programs satisfy the requirements for these degrees.

Area of Study	Coherency/Study Pattern	Code
Teacher Education	Teacher Education – Various	TED01
	Mathematics	TESC01
	Information Technology	TESC02
	Information Systems	TESC03
	Physics	TESC04

The minimum requirements include an aggregate of at least 92 credit points, including at least 68 credit points which satisfy the relevant degree of Bachelor; at least 12 credit points in TEP units; at least 12 credit points in EDUC units including EDUC262 or EDUC264, and such other units as have been prescribed by Academic Senate. Candidates must consult advisers within the Teacher Education Program, and ensure that they comply with requirements as specified in the *Teacher Education Program Student Guide* available from this Department.

Honours program

Candidates for admission to the Bachelor of Arts honours course in the Department of Education will be expected normally to have obtained an average GPA of not less than 3.0 in education units at 300 level; and to have obtained 18 credit points at 300 level, of which at least 12 should have been in education, excluding P-type units.

The program of study consists of a major area of study, for which each candidate will undertake a substantial investigation; a minor area of study, in a field distinct from that of the major area, associated with which each candidate will be required to present an essay; and coursework in educational issues.

It is strongly recommended that intending honours students should have completed undergraduate units which give them knowledge of a range of research methods appropriate to the study of education. Suitable learning experiences are provided by a number of units in this and other departments, set out in the Schedule of Undergraduate Units in this Handbook, including STAT170 Introductory Statistics and EDUC406 The Educational Research Process.

Students who do not have such basic knowledge of appropriate research methods are advised to undertake individual study of methods relevant to education before commencing the honours year.

A candidate enrolled in the combined degree of Bachelor of Arts with the Diploma of Education may be awarded the degree of Bachelor of Arts with the Diploma of Education with Honours as specified in the Bachelor Degree Rules.

Bachelor of Education (Primary), Bachelor of Education (Secondary) for graduates

The Department of Education offers graduate entry pre-service teacher education programs for both primary and secondary education. Applications are made to UAC. Intending applicants are advised to obtain an assessment of their initial degree qualification for its suitability as a basis for teaching from the NSW Institute of Teachers when applying through UAC.

Majors and coherent studies

The following programs satisfy the requirements for these degrees.

Area of Study	Coherency	Code
Teacher Education	Primary (for Graduates)	EDU02
	Secondary (for Graduates)	EDU03

Entry requirements

The Bachelor of Education (Primary) is open to graduates holding a recognised Bachelor degree, who have completed the appropriate undergraduate studies specified by the NSW Institute of Teachers.

The Bachelor of Education (Secondary) is open to graduates holding a recognised Bachelor degree with a major in at least one teaching subject available in Macquarie University's pre-service Teacher Education Program.

Academic advice

Candidates must consult advisers with the Teacher Education Program and ensure that they comply with requirements as specified in the *Teacher Education Program Student Guide* available from this Department.

Graduate Diploma in Education

The Graduate Diploma in Education is open to graduates holding a recognised Bachelor degree with a major in at least one teaching subject available in Macquarie University's pre-service teacher education program.

Majors and coherent studies

The following programs satisfy the requirements for this award.

Area of Study	Study Pattern	Code
Teacher Education	Education – Grad Dip (2)	TEDN11

Academic advice

Candidates must consult advisers with the Teacher Education Program and ensure that they comply with requirements as specified in the *Teacher Education Program Student Guide* available from this Department.

Department of Education enquiries

Room: C3A 828
Phone: +61 2 9850 8654
Fax: +61 2 9850 8674
Email: tepinfo@aces.mq.edu.au
Website: www.educ.mq.edu.au

Department of Linguistics

Studies in the Department of Linguistics cover the full range of language inquiry, its structure, systems, contexts of use, and applications. The Department offers programs in phonetics; audiology and speech and language disorders; systemic-functional grammar; socio-linguistics and computational linguistics.

Units of study in linguistics are concerned with both the study of language and its various uses and applications in society. Units above 100 level are designed to meet the needs of students of many varying interests including: the theories of language; the study of particular languages; the teaching of English or of English as a second language, or of other languages; the development of language in children; communication disorders and the practice of the language therapies such as speech therapy and audiology; communication and the mass media; the place of speech and language in individual and social behaviour in such fields as psychology, anthropology, sociology, education and philosophy. These units can be combined in various ways, and they can provide a large variety of programs of study in conjunction with other disciplines in the University. Further information and advice may be found in the handbook *Exploring Language in Linguistics*, available from the Linguistics Office, C5A 508.

Apart from students intending to study linguistics as their major area of study, some first-year linguistics units are recommended for other students. LING120 and LING110 are recommended for Education students. LING109, LING110 and LING120 are recommended for anthropology, economics, cultural studies, law, media, psychology and sociology students. SLP148 and LING110 are recommended for computing students with an interest in how minds and machines process and store words.

Interdisciplinary studies

Linguistics and psychology, linguistics and education, and linguistics and computing – all in several different combinations – are amongst the most obvious possibilities for interdisciplinary study within linguistics. Other disciplines for consideration include anthropology, cultural studies, English literature, media studies, sociology, modern languages and philosophy. Students considering a joint program should consult staff in the relevant departments.

Bachelor of Arts; Bachelor of Science

The Bachelor of Arts or Science with a coherent study in linguistics is not a specifically vocational degree. However, with a careful selection of units students may put together a bachelor degree program that will equip them for entry into certain careers. For some careers, an appropriate Masters degree or postgraduate diploma or postgraduate certificate will be needed for accreditation (see under Professional accreditation).

Majors and coherent studies

The following programs satisfy the requirements for the Bachelor of Arts degree.

Area of Study	Coherency	Code
Linguistics	Linguistics	LNG01
	Language and Communication	LNG03
	Linguistics and ESL	LNG11
	Linguistics and Psychology	LNG20

The following programs satisfy the requirements for the Bachelor of Science degree.

Area of Study	Coherency	Code
Linguistics	Language and Speech	LNG05
	Linguistics and Cognitive Psychology	LNG13
	Linguistics and Computing	LNG14

Bachelor of Social Science

The Bachelor of Social Science is also a generic degree but does have some vocational directions. For instance, a Bachelor of Social Science with a coherency in sociolinguistics together with the other degree requirements makes graduates of this degree attractive to employers recruiting specifically for positions involving social research and/or policy development within government departments, non-government and community organisations and organisations in the private sector involved in language policy planning and multicultural issues.

Majors and coherent studies

The following programs satisfy the requirements for this degrees.

Area of Study	Coherency	Code
Linguistics	Linguistics and Intercultural Communication	LNG16
	Linguistics and Policy	LNG17
	Linguistics and Social Psychology	LNG18
	Sociolinguistics	LNG19

Professional accreditation

Careers in language development, speech disorders and audiology can be facilitated through undergraduate studies in linguistics and psychology (LNG13 and LNG20). A clinical masters degree in psychology, speech pathology or audiology, such as those currently offered by Macquarie University (see the *2009 Handbook of Postgraduate Studies*) would be needed for professional accreditation.

Careers in teaching English as a second language (children and/or adults) can be supported by undergraduate studies in linguistics and education (LNG11). A postgraduate diploma in TESOL can be obtained from Macquarie University for teaching ESL to adults. Those intending to teach ESL in the NSW school system, either primary or secondary, should consult an academic adviser in the Department of Education.

Careers in editing and publishing can be supported by undergraduate studies in linguistics and media. Undergraduate units in English language (from Linguistics) and writing/print journalism (from Media) are useful preparation, in combination with other undergraduate specialisations of any kind. A postgraduate qualification such as Macquarie University's Diploma in Editing and Publishing provides professional training in the field.

Honours program

Students contemplating an honours program should consult with the Head of the Department as early as possible.

To gain entry to the honours program in linguistics students are required to have a coherency in LING and/or SPH units, with a relevant GPA (see information about Honours Degrees in Degrees and Diplomas Offered in this Part this Handbook). Students who wish to take the honours units in linguistics without having met these requirements should consult the Head of the Department of Linguistics.

Candidates for honours are required to take three seminar units: LING400 Seminar on Research Methods and Design; LING401 Honours Reading Course and LING402 Honours Seminar in Modern Linguistics; together with LING493 Linguistic Investigation and Thesis.

Further information about the honours program is available from the Department Office.

Bachelor of Speech and Hearing Sciences

The fields of speech and hearing sciences are multi-disciplinary areas of study encompassing a large number of traditional disciplines including linguistics, psychology, the medical and clinical sciences, biology, physics, computer science and engineering. Career options in these fields can include developing new speech technologies (for example, computer generation of speech and speech recognition) from either a speech science perspective (linguistic, acoustic, etc) or an engineering or computer science perspective or using technology to simulate human vocal and/or cognitive behaviour. Successful practitioners in the fields of speech and hearing sciences, whether scientists or clinicians, need to be equipped with tools, methods and knowledge from diverse sources. The aim of this degree is to provide students with the range of skills that they will require in their various professional careers.

The Bachelor of Speech and Hearing Sciences consists of a number of core units covering introductory studies in psychology and linguistics, together with, at the minimum, some basic studies in each of statistics and biology. There are four major areas of study. They are audiology, speech and language pathology, cognitive psychology and speech research. All students will take a

number of required units in second and third year that are considered areas of basic common knowledge for all four areas of study. Students will also take a number of additional units that are compulsory in their area of specialisation. Beyond the core and compulsory units there is some scope for supporting studies either in one or more of the other three areas of study or in some other science area such as biology, computing, or electronics.

Majors and coherent studies

The following programs satisfy the requirements for these degrees.

Area of Study	Coherency	Code
Speech and Hearing Science	Audiology	SPH10
	Cognitive Psychology	SPH11
	Speech and Language Pathology	SPH12
	Speech Research	SPH13

Professional accreditation

Audiologists must undertake further postgraduate studies to qualify as a clinical practitioner. Speech and language pathologists must undertake further postgraduate or undergraduate studies to qualify as a clinical practitioner. Cognitive psychology majors who wish to qualify for honours in Psychology must meet the requirements for the BA/BSc (Hons) in Psychology.

Speech Research graduates may wish to undertake further postgraduate studies in Speech Science to better enable them to take up career opportunities in the expanding field of speech and language technology.

Honours program

A fourth honours year can be taken in any of the four major studies areas. For admission requirements for Honours in the Bachelor of Speech and Hearing Sciences see information about Honours Degrees in the Degrees and Diplomas Offered section of this Part of this Handbook. Students who wish to take the honours units without having met these requirements should consult the Head of the Department of Linguistics.

Academic advice

For further information please consult with an academic adviser in the Speech and Hearing Sciences area of Linguistics or access the Bachelor of Speech and Hearing Sciences degree program website via the Department of Linguistics homepage at www.ling.mq.edu.au.

Department of Linguistics enquiries

Room: C5A 508
Phone: +61 2 9850 8740
Fax: +61 2 9850 9199
Email: lingadmin@ling.mq.edu.au
Website: www.ling.mq.edu.au

Department of Psychology

It is natural to assume that someone who is trained in psychology will work professionally as a psychologist, but it is also important to recognise that qualifications in psychology are useful for a great variety of jobs, particularly as it includes training in research methods and evaluation. Psychology graduates often work for government departments, both Federal and State, especially as vocational and educational counsellors or clinical psychologists; but the fields of community psychology, Health Department work, industrial and commercial employment are also growing.

Many psychologists are engaged in research, both in universities and in government departments. The special training in research techniques which psychologists receive equips them well to work as research consultants in many areas of human relations and work efficiency.

Professional accreditation

The basic requirement for becoming registered as a psychologist in New South Wales is a four-year university degree in psychology, accredited by the Australian Psychology Accreditation Council (APAC), plus two years of supervised experience or a two-year postgraduate program. For admission to membership of the Australian Psychological Society (APS), four years of academic training in psychology plus a two-year postgraduate degree are required. The undergraduate and postgraduate courses offered at Macquarie University provide the necessary academic training for qualifying as a professional psychologist.

Bachelor of Arts, Bachelor of Science, Bachelor of Social Science

The minimum requirements for graduation in these degrees are set out in the Schedule of Programs of Study and include at least 18 credit points above 200 level, including an approved major or coherent study.

Majors and coherent studies

The following program satisfies the requirements for the Bachelor of Arts.

Area of Study	Coherency	Code
Psychology	Psychology	PSY01

The following programs satisfy the requirements for the Bachelor of Science.

Area of Study	Coherency	Code
Psychology	Psychology	PSY03
	Psychology and Biology	PSY04
	Psychology and Linguistics	PSY05
	Psychology and Philosophy	PSY06

The following program satisfies the requirements for the Bachelor of Social Science. For more details of the

Bachelor for Social Science see the entry for interdisciplinary studies within the Faculty of Arts in this Part of this Handbook.

Area of Study	Coherency	Code
Psychology	Social/Developmental Psychology	PSY02

Bachelor of Arts – Psychology, Bachelor of Science – Psychology

[APS Accredited Degrees]

Majors and coherent studies

The following programs satisfy the requirements for these degrees.

Area of Study	Study Pattern	Code
Psychology	Psychology	PSYC12
	Psychology	PSYC14
	Psychology and Philosophy	PSYC11
	Psychology and Philosophy	PSYC13

Bachelor of Arts – Psychology (Hons), Bachelor of Science – Psychology (Hons)

These are fourth-year awards which are fully accredited by the Australian Psychology Accreditation Council (APAC) and lead to associate membership of the Australian Psychological Society and provisional registration as a Psychologist by the NSW Psychologists Registration Board.

Entry requirements

Entry to the fourth (honours) year requires the completion of the Bachelor of Arts – Psychology or Bachelor of Science – Psychology degree with two additional compulsory units, PSY331 Design and Statistics III and PSY340 Research Methods in Psychology; and at least 16 credit points of 300-level psychology. (Note that a minimum of 18 credit points at 300 level is required to graduate.)

The selection criteria for entry to Psychology Honours for students who commence their program of study at Macquarie University in 2007 and beyond are:

- An average Standard Numerical Grade of 70 over all Psychology units. The calculation of the average Standard Numerical Grade will include all units with the prefix PSY plus STAT170, and will take into account the credit point value of each unit, thus achieving a weighted average SNG.
- An average Standard Numerical Grade of 70 over 300-level Psychology units. The calculation of the average Standard Numerical Grade will include all 300-level units with the prefix PSY.

Please note: a Pass (at P grade or above) is required for all compulsory units.

(Note that the criteria for entry to Honours changed for students who commenced in 2007.)

Academic advice

The fourth-year program can only be commenced at the beginning of first semester and requires one year of full-time study. It is not available by distance education. The program consists of 24 credit points made up of the following: empirical thesis; two compulsory units (Research Design IV and Professional Practice and Ethics); and two elective units.

Bachelor of Psychology (Hons)

[APS Accredited Degree]

The Bachelor of Psychology (Hons) is a four-year honours degree approved by the APS which leads to associate membership of the APS and provisional registration as a psychologist by the New South Wales Registration Board.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Psychology	Psychology Honours	PSYC15

Entry requirements

An initial group of students is admitted into the Bachelor of Psychology (Honours) degree in the first year based upon their UAI. In 2008 the UAI cut off for entry into the degree was 93.10.

A further pool of places is available at the end of the student's third year of full-time study (or part-time equivalent) if they have met the requirements. The selection criteria for entry to Psychology Honours for students who commence their program of study at Macquarie University in 2007 and beyond are:

- An average Standard Numerical Grade of 70 over all Psychology units. The calculation of the average Standard Numerical Grade will include all units with the prefix PSY plus STAT170, and will take into account the credit point value of each unit, thus achieving a weighted average SNG.
- An average Standard Numerical Grade of 70 over 300-level Psychology units. The calculation of the average Standard Numerical Grade will include all 300-level units with the prefix PSY.

Please note: a Pass (at P grade or above) is required for all compulsory units.

(Note that the criteria for entry to Honours changed for students who commenced in 2007.)

Students who are enrolled in the Bachelor of Psychology (Honours) and fail to meet the requirements to enter fourth year, will be required to take out a Bachelor of Arts – Psychology or a Bachelor of Science – Psychology.

The fourth year of the degree can only be commenced at the beginning of first semester and requires one year of full-time study. It is not available by distance education. The program consists of 24 credit points made up of the following: empirical thesis; two compulsory units (Research Design IV and Professional Practice and Ethics); and two elective units.

For further information about the honours program please contact Donna Keeley on +61 2 9850 8113 or at donna.keeley@mq.edu.au.

Graduate Diploma in Psychology

The Graduate Diploma is a two-year part-time or 18-month full-time program which consists of 33 credit points. It is designed for students who have a recognised degree but only the first year of a major in psychology, (for example, a Bachelor of Arts including PSY104, PSY105, and STAT170 from Macquarie University; or a Bachelor of Arts including PSYC1001 and PSYC1002 from the University of Sydney).

Students with a degree who have not completed first-year psychology will need to complete appropriate non-award units in psychology and statistics before they are eligible to enrol in the Diploma.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of study	Study Pattern	Code
Psychology	Psychology	PSYC25

Academic advice

Students intending to apply to enter the Honours year should familiarise themselves with the requirements for this. In particular, note that PSY331 and PSY340 are needed in addition to the units listed in the program.

Some students prefer to do a second Bachelor degree rather than the Graduate Diploma. Note that graduates of an Australian university may be granted credit for previous studies of 28 credit points, including 10 credit points at 200 level. Thus they may require successful study of only 50 more credit points to satisfy requirements for a Bachelor degree.

For further information and academic advice phone +61 2 9850 8048. For application forms and administrative queries phone +61 2 9850 7328.

Interdisciplinary programs

Bachelor of Arts – Psychology with Bachelor of Health, Bachelor of Science – Psychology with Bachelor of Health

This four-year double degree includes a major in psychology accredited by the Australian Psychological Society and also meets the requirements for the Bachelor of Health. It is your preference as to whether you take the Bachelor of Arts – Psychology degree or the Bachelor of Science – Psychology degree as they are equivalent. The program will equip students with the skills and knowledge needed in a variety of health-related occupations, eg in health promotion, policy, planning and research. A separate honours year in psychology is available provided that honours requirements are met.

For further information see the entry for the Department of Chiropractic under the Faculty of Science in this Part of this Handbook.

Majors and coherent studies

The following programs satisfy the requirements for these degrees.

Area of study	Study Pattern	Code
Psychology	Psychology & Health	PSYC16
	Psychology & Health	PSYC17

Bachelor of Arts – Psychology with Bachelor of Laws

This five-year double degree includes a major in psychology accredited by the Australian Psychological Society as well as an approved law degree. The program consists of all of the compulsory units in the Bachelor of Arts – Psychology degree plus all of the law units required to complete a Bachelor of Law.

For further information see the Macquarie Law School entry under the Faculty of Arts in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of study	Study Pattern	Code
Psychology	Psychology and Law	PSYL02

Bachelor of Arts – Psychology with Diploma of Education

This is a four-year degree that includes a major in psychology accredited by the Australian Psychological Society as well as completion of the requirements for the Diploma of Education. The program is suitable for teachers wishing to teach at primary school level. A separate honours year in psychology is available provided that honours requirements are met. The program of study is identical to the Bachelor of Arts – Psychology and includes the education and professional units required for primary teacher training. The program can be amended to include secondary teacher training.

For further information see the entry for the Department of Education under the Faculty of Human Sciences in this Part of this Handbook.

Bachelor of Business Administration

The Bachelor of Business Administration (BBA) is an interdisciplinary degree that includes units in accounting, business law, economics, information systems, marketing

and organisational psychology. See study pattern BUSN14 for details on the organisational psychology strand of the BBA, and note that admission to the 300-level psychology units requires a pass (at P Grade or above) in PSY104 and PSY105.

For further information see the entry for the Department of Education under the Faculty of Human Sciences in this Part of this Handbook.

Bachelor of Business Administration with Bachelor of Arts – Psychology

This double-degree program provides a joint qualification in business and psychology, with the possibility of proceeding to the honours program in either business or psychology. The Bachelor of Business Administration component is exactly the same as that leading to the straight Bachelor of Business Administration except that students must take the organisational psychology strand. The psychology component consists of all of the psychology units in the Bachelor of Arts – Psychology degree. Students wanting to do Honours in Psychology must also take PSY331 and PSY340.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of study	Study Pattern	Code
Business	Business and Psychology	BUSN52

Bachelor of Medical Sciences

A Bachelor of Medical Sciences meets the demand for well-trained medical and health professionals. The degree is designed to equip graduates with a flexible range of skills for a number of health-related occupations in the medical sciences, in medical research, and in allied health care areas. Graduates might work in hospitals, in medical research laboratories and institutes, in psychological research, or go on to higher degrees. The degree will also provide excellent preparation for entry to post-graduate medical degrees.

Students complete a common first year and then have the choice of specialising in one of three strands: biomedical, medical chemistry or psychomedical.

See the Department of Biological Sciences in the Faculty of Science in this Part of this Handbook for details of the biomedical strand. Details of the medical chemistry strand are listed under the Department of Chemistry and Biomolecular Sciences in the Faculty of Science.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of study	Coherency	Code
Medical Sciences	Psychomedical	MED03

Entry requirements

Entry to the degree is restricted. Students must have obtained superior Higher School Certificate grades and are expected to have studied Mathematics (Band 2) plus Chemistry (Band 3). For entry into Psychology honours, students need to complete PSY235, PSY245, PSY246, PSY247 and PSY340 in addition to the prescribed units. See above for more information on the Psychology Honours course.

Bachelor of Speech and Hearing Sciences

The fields of speech and hearing sciences are multidisciplinary areas of study encompassing a large number of traditional disciplines including linguistics, psychology, the medical and clinical sciences, biology, physics and mathematics. The Bachelor of Speech and Hearing Sciences is an interdisciplinary degree.

For more information see the entry for the Department of Linguistics, above.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of study	Coherency	Code
Speech and Hearing Science	Cognitive Psychology	SPH06

Department of Psychology enquiries

Room: C3A 334
Phone: +61 2 9850 8050
Fax: +61 2 9850 9911
Email: psy_off@psy.mq.edu.au
Website: www.psy.mq.edu.au

Institute of Early Childhood

The Institute of Early Childhood is the major provider of early childhood teacher education in Nsw South Wales, offering courses at undergraduate and postgraduate levels. Mia-Mia Child and Family Study Centre is an integral part of the Institute and provides unique opportunities for staff research and observational studies for units offered in child development, curriculum studies and early childhood education.

School leavers and beginning students enrol in the Bachelor of Education (Early Childhood Education) program which prepares students to teach and work with children from birth to eight years. Students with previous qualifications may gain credit for previous studies towards an early childhood degree.

A graduate may find employment as an early childhood educator in primary schools, preschools or long day-care centres; or as a director/administrator of a long day-care centre or preschool. They may be employed by a municipal council to coordinate a range of children's services in a local government area, or may become an early childhood adviser in a government department administering children's services. Such services could include early intervention, family day-care, early childhood services for special needs children, before-and after-school care, emergency care, occasional care, toy libraries and mobile preschool services.

Distance education program

The Institute is the leading Australian provider of specialised early childhood units by external study. Details of available units are given in the Schedule of Undergraduate Units in this Handbook.

Bachelor of Education (Early Childhood Education)

This program involves four years of full-time study or the equivalent of part-time study. Graduates will be recognised as four-year-trained early childhood teachers by the NSW Department of Education and Training and the Department of Community Services. This program is offered internally and by distance education, subject to availability of units and eligibility of students.

A full distance education program is also available for eligible students, that is, those with a previous teaching qualification or Associate Diploma or Diploma in Childcare or Community Services.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Teacher Education	Early Childhood Teaching	TEDN02
Teacher Education	Early Childhood Teaching	TEDN04

Honours program (TEDN02)

This program is available to students deemed eligible after completion of the first two years of the Bachelor of Education (Early Childhood Education) program. Honours candidates have the opportunity to pursue specialised research offerings.

Honours students are required to take:

Year 3

ECH315; ECH316; ECH319; ECH320; ECH326; ECHH340; ECHP323; ECHP324

Year 4

ECH425; ECHH401; ECHH440; ECHP422

Honours program (TEDN04)

This Honours program will be available for students commencing their undergraduate studies in 2009. For more information contact Dr Peter Whiteman on +61 2 9850 9883 or at peter.whiteman@mq.edu.au.

Bachelor of Teaching (Early Childhood Services)

This program is offered to Aboriginal and Torres Strait Islander students. This degree qualifies graduates to work with children in services prior to school.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Teacher Education	Early Childhood Services	TEDN01

All students are required to take the following, in the order indicated:

Year 1

ABEC120; ABEC121; ABFS110; ABSP100

Year 2

ABEC112; ABEC150; ABEC211; ABEP130; ABFS130; ABMG140

Year 3

ABEC215; ABEC225; ABEC240; ABEC311; ABEP230; ABSP300

Year 4

ABEC212; ABEC222; ABEC320; ABEC340; ABEC350; ABEP330

Bachelor of Teaching (Birth to School Age)

This program is offered over five semesters (two and a half years) to those students who already have the TAFE Diploma of Children's Services (Centre Based Care) or the Diploma of Community Services (Children's Services – Centre Based Care) or equivalent and who

have at least one year's experience as a qualified worker in a centre-based setting. Applicants must also be currently employed in long day care, preschool, occasional care or an equivalent service. This program enables applicants to gain a teaching qualification in working with children from birth to school age. The program begins mid-year (second semester) and students enter the program with credit for previous study.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Teacher Education	Early Childhood Teaching	TEDN03

First semester of enrolment (second half year) ECST100; ECST101

Second semester of enrolment (first half year) ECH315; ECHP323

Third semester of enrolment (second half year) ECH316; ECH326

Fourth semester of enrolment (first half year) ECH440 or any 4 credit point unit at 200 level or above; ECST200

Fifth semester of enrolment (second half year) ECH417; ECHP444

Graduate Diploma in Early Childhood

This program is offered to students who have the equivalent of a three-year university degree. The course is offered in three areas of specialisation.

Majors and coherent studies

The following programs satisfy the requirements for this award.

Area of Study	Study Pattern	Code
Early Childhood	Early Childhood and Intervention 0-5 Settings	ECHS05
	Early Childhood Education 0-5 Settings	ECHS06
Early Childhood Studies	Advanced Studies in Early Childhood	ECHS07

Early Childhood Education in 0–5 settings

Students wishing to gain entry into this award should have a three or four-year primary education teaching degree or diploma. Completion of this Graduate Diploma will qualify a primary trained teacher as an early childhood teacher. The program is offered part-time over one and a half to two years, and is available in the internal or external study mode. Students are required to complete two practicum units as part of this program.

To qualify for the award, students must complete the following units:

ECH113; ECH226; ECH229; ECH416; ECH425; ECHP324; ECHP422.

Early Childhood Education and Intervention in 0–5 settings

This program has been specifically designed for the professional development of students wishing to work with children with additional needs. Students wishing to gain entry into this award should have a three or four-year Bachelor of Arts, Diploma of Education (Infants/Primary); Bachelor of Teaching (Early Childhood/Primary); Diploma of Teaching (Early Childhood/Primary) or Bachelor of Education (Early Childhood/Primary). Substantial experience as a teacher in settings for children from 0–5 years is highly recommended. This Graduate Diploma is not a teaching degree.

The program is offered part-time over two years or full-time over one year, and is available in the internal or external study mode. Students are required to complete a practicum unit as part of this program.

To qualify for the award, students must complete the following units:

ECH320; ECH416; ECH440; ECH441; ECH445; ECHP423.

Advanced Studies in Early Childhood

This program has been specifically designed for the professional development of students seeking to further their studies in early childhood education. Students wishing to gain entry into this award should have a three or four year degree or diploma in early childhood teaching; or a Bachelor of Arts with a coherent study/major in early childhood. The program is offered part-time over one and a half years or twelve months full-time, and is available in the internal or external study mode.

To qualify for the award, students must complete the following units: ECH416; ECH417; ECH425; ECH432; ECHP423 or two of the following: ECH413, ECH426, ECH440, ECH441, ECH445.

Bachelor of Arts

A coherent study in early childhood leading to a Bachelor of Arts degree is offered.

Please note: this degree does not provide a teaching qualification.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Early Childhood Studies	Early Childhood	ECH01

Institute of Early Childhood enquiries

Room: X5B 351
Phone: +61 2 9850 9824
Fax: +61 2 9850 9890
Email: celise.hill@mq.edu.au
Website: www.iec.mq.edu.au

Faculty of Science

The Faculty of Science brings together the Departments of Biological Sciences, Brain, Behaviour and Evolution, Chemistry and Biomolecular Sciences, Chiropractic, Computing, Earth and Planetary Sciences, Environment and Geography, Mathematics, Physics and Engineering and Statistics. Supported by partnerships with industry and a strong commitment to fostering an understanding of the importance of science and technology in the wider community, the Faculty teaches, researches and consults across a broad range of the sciences and into the social sciences.

Science education is underpinned by its practical applications and the Faculty's degree programs provide students with a wide range of opportunities to experience practical laboratory and fieldwork in their chosen fields. Workplace learning is also an integral component of a number of programs. Science graduates leave Macquarie University well prepared for both work and lifelong learning. In addition to discipline specific and technical skills, Macquarie University science students gain a valuable range of generic skills that are applicable to both their future careers and everyday lives. These skills are presented in context within all degree programs and include problem solving, research, synthesis and communication of information, quantitative analysis, and written and oral communication. The Faculty's strong commitment to high quality teaching is evidenced by the many university and national awards for teaching excellence received by its staff.

The Faculty of Science, as one of the leading research groups at Macquarie University, seeks to maintain national and international leadership in its established areas of research expertise, as well as exploring creative and innovative research collaborations in new and emerging areas. The Faculty, which is home to a number of research centres and networks, as well as Concentrations of Research Excellence (COREs), recognises that research plays a vital role in maintaining high standards in undergraduate, honours and postgraduate teaching programs, and encourages and supports research activities that enhance the University's educational mission.

The Departments within the Faculty are:

Department of Biological Sciences
Department of Brain, Behaviour and Evolution
Department of Chemistry and Biomolecular Sciences
Department of Chiropractic
Department of Computing
Department of Environment and Geography
Department of Earth and Planetary Sciences
Department of Mathematics
Department of Physics and Engineering
Department of Statistics

Degrees offered

Bachelor of Arts
Bachelor of Biotechnology
Bachelor of Chiropractic Science
Bachelor of Computer Science
Bachelor of eBusiness
Bachelor of Engineering
Bachelor of Environmental Management
Bachelor of Environmental Science
Bachelor of Health
Bachelor of Information Systems
Bachelor of Information Technology
Bachelor of Optical Technology
Bachelor of Marine Science
Bachelor of Medical Sciences
Bachelor of Planning
Bachelor of Science
Bachelor of Social Science
Graduate Diploma in Information Technology
Graduate Certificate in Information Technology

Double degrees

Bachelor of Arts – Psychology with Bachelor of Health
Bachelor of Business Administration with Bachelor of Information Technology
Bachelor of Commerce – Actuarial Studies with Bachelor of Science
Bachelor of Engineering with Bachelor of Commerce
Bachelor of Engineering with Bachelor of Science
Bachelor of Engineering with Bachelor of Business Administration
Bachelor of Environmental Science with Bachelor of Laws
Bachelor of Environmental Management with Bachelor of Laws
Bachelor of Information Technology with Bachelor of Laws
Bachelor of Science with Bachelor of Arts
Bachelor of Science with Bachelor of Laws
Bachelor of Science with Diploma of Education
Bachelor of Science – Psychology with Bachelor of Health

Entry requirements

Each degree program has a specific entry requirement, generally expressed as a minimum Higher School Certificate UAI. For students intending to undertake studies in one of the Faculty's disciplines, HSC Mathematics Extension 1 or 2 (or a good pass in HSC Mathematics) is highly desirable. Completion of two units of HSC physics and HSC chemistry is also desirable for students aiming at major studies in physics, electronics or engineering.

Academic advice for 100-level mathematics

There are three entry levels for mathematics: MATH132 Mathematics IA (Advanced) for those students with a good background in HSC Mathematics Extension 1 or Extension 2; MATH135 Mathematics IA for those students with a good background in HSC Mathematics; and MATH123 Mathematics 123 or MATH130 Mathematics IE for those students whose secondary education in math-

ematics has not reached a sufficiently high level to qualify for direct admission to MATH135 or MATH132. In particular, students with HSC General Mathematics should commence with MATH123 or MATH130.

Note: The Learning Centre for Numeracy Skills provides academic support, and conducts a program of workshops and refresher courses, for students enrolling in MATH130 and MATH135. One of these courses, in February, offers an alternative entry to MATH135 for students who pass an optional examination.

Academic advice

Note that some programs of study (eg Bachelor of Science in Astronomy and Astrophysics) have a different UAC code from the generic Bachelor of Science, but lead to the award only of the Bachelor of Science. However, students admitted to such programs of study will receive preferential treatment, for example guaranteed access to restricted units or opportunities for research; see the departmental entries below for details.

Selecting a complete program of studies for the Bachelor of Science or Bachelor of Arts should meet a number of criteria, including a minimum number of credit points in various categories, as specified by the Bachelor Degree rules or the Schedule of Programs of Study; a set of 300-level units which constitute a coherent study, as specified in the Schedule of Programs of Study; completion at appropriate time of prerequisites for the units making up a coherent study (missing HSC prerequisites may present particular difficulty); completion at appropriate time of prerequisites for the units giving the required credit points, some perhaps not closely related to the coherent study. Units chosen at a given level should allow flexibility at a later stage, whether because of a change in direction, or change of degree, or because of failure to satisfy a prerequisite requirement for the selected program, taking account of units that are offered only in one half-year, or only in alternate years. This particularly applies to evening students.

Please refer to the recommended programs and academic advice listed under each departmental entry and consult an academic adviser from the relevant department when planning a program of studies. Some departments suggest specific Bachelor of Science or Bachelor of Arts programs which meet the above criteria as far as possible, and these will suit many students; however, some students will put greater weight on some of the above criteria than on others.

Honours programs

Honours programs are one year full-time or two years part-time commenced on completion of a normal degree program. It is expected that candidates applying for entry to the Honours program should have completed at least 18 credit points in relevant units at 300 level and/or 400 level and obtained a GPA of 2.5 both overall and at 300 level and/or 400 level. Applicants who do not satisfy these requirements are eligible to apply for the special approval of the Executive Dean of Faculty or a delegated authority such as the Head of the relevant Department.

Honours programs have two interrelated objectives: first, to provide a student with the opportunity to undertake supervised research in a chosen area of interest; and second, to enhance academic qualifications and general experience for employment purposes. Students interested in undertaking an Honours program should discuss opportunities with a member of academic staff at or before the beginning of their third year of study.

For further department specific information on honours programs students are advised to consult the relevant department's entry in the sections that follow.

Fieldwork in the Faculty of Science

A significant number of units have compulsory fieldwork components. The location and duration of each period of fieldwork are given in the relevant unit description in the section entitled Descriptions of Undergraduate Units in this Handbook.

Please note that some fieldwork can be remote and relatively physically demanding. If health issues exist that may affect a student's capacity to undertake fieldwork, this should be discussed with the unit convenor or Head of Department as early as possible.

Bachelor of Science and Bachelor of Arts

The Bachelor of Arts differs from the Bachelor of Science in that there is no requirement that a certain number of credit points must be in units designated as Science. It allows maximum flexibility, only requiring that a coherent study is included in the program. Of course, this in turn requires that prerequisite units at 100 level and 200 level must also be completed. Many programs within the Faculty of Science are available as identical coherent studies for the Bachelor of Science and the Bachelor of Arts. For details see degree entries under the Departments below.

Bachelor of Arts or Bachelor of Science with Diploma of Education

Science teaching

Students who are taking the combined Bachelor of Science with the Diploma of Education or Bachelor of Arts with the Diploma of Education program and wish to satisfy the NSW Department of Education and Training requirements for promotion should carefully consult the *Teacher Education Program Student Guide* available from the Macquarie University Department of Education. For further information please contact the Faculty of Science via email at scienceenquiries@mq.edu.au or by phoning +61 2 9850 6000. Discipline-specific teacher training information is also located in the departmental entries which follow.

Coherent studies

The Faculty of Science offers a wide range of coherent (or major) studies within the Bachelor of Science, Bachelor of Arts and Bachelor of Engineering programs. Detailed information about individual coherent studies can be found under the relevant department's entry in the sections which follow.

Programs appearing with separate codes in the *UAC 2009 Guide* are listed below.

Bachelor of Engineering in Computer Engineering
Bachelor of Engineering in Electronics Engineering
Bachelor of Engineering in Instrumentation and Control Engineering
Bachelor of Engineering in Photonics
Bachelor of Engineering in Software Engineering
Bachelor of Engineering in Telecommunications Engineering
Bachelor of Engineering in Wireless Engineering
Bachelor of Science in Advanced Biology
Bachelor of Science in Advanced Chemistry
Bachelor of Science in Advanced Mathematics
Bachelor of Science in Astronomy and Astrophysics
Bachelor of Science in Biodiversity and Conservation
Bachelor of Science with Bachelor of Arts in Natural and Cultural Heritage and Museums

It is important to note that these are coherent (or major) studies within the Bachelor of Science or Bachelor of Engineering degrees and that the name of the coherent study is not part of the title of the award. For example, the Bachelor of Science in Biodiversity and Conservation describes a program of study for which the award will be a Bachelor of Science.

Transfer between courses

Any student wishing to change his or her degree program to another degree program must meet the requirements set out in Part 1 of this Handbook, and a *Request to Transfer Degree Course* form must be completed.

Degrees, programs and units

Degree descriptions are provided below in the entry for the relevant department. Approved programs of undergraduate study are listed in the Schedule of Programs of Study in Part 3 of this Handbook. The units of undergraduate study are listed in the Schedule of Undergraduate Units, and brief descriptions are given in the section entitled Descriptions of Undergraduate Units.

Faculty of Science enquiries

Room: E7A level 1
Phone: +61 2 9850 6000
Fax: +61 2 9850 6565
Email: scienceenquiries@mq.edu.au
Website: www.mq.edu.au/science

Areas of study

Programs in the following areas of study are offered by departments in the Faculty of Science.

Area of Study	Award	Department
Animal Behaviour	BSc	Brain, Behaviour and Evolution
Astronomy and Astrophysics	BSc	Physics and Engineering
Atmospheric Science	BA BSc GDipAtmSc	Environment and Geography Environment and Geography Environment and Geography
Biodiversity and Conservation	BSc	Biological Sciences
Bioinformatics	BSc	Biological Sciences; Chemistry and Biomolecular Sciences; Statistics
Biology	BSc	Biological Sciences; Chiropractic
Biomolecular Sciences	BSc	Chemistry and Biomolecular Sciences
Biotechnology	BBiotech GradCertBiotech	Chemistry and Biomolecular Sciences Chemistry and Biomolecular Sciences
Chemistry	BA BSc	Chemistry and Biomolecular Sciences Chemistry and Biomolecular Sciences
Chiropractic	BChiroSc	Chiropractic
Development Studies	BA	Environment and Geography
eBusiness	BeBus	Computing
Electronics and Communication	BA	Physics and Engineering

Systems (Telecommunications)	BSc	Physics and Engineering
Engineering	BE	Physics and Engineering
	BE BBA	Economics; Physics and Engineering
	BE BCom	Economics; Physics and Engineering
	BE BSc	Physics and Engineering
Environmental Sciences	BEnvSc	Faculty of Science
	BEnvMgmt	Faculty of Science
Geoecology	BA	Environment and Geography
	BSc	Environment and Geography
Geographic Information Science	BA	Environment and Geography
	BSc	Environment and Geography
	GDipGInfS	Environment and Geography
Geology, Geophysics and Exploration	BSc	Earth and Planetary Sciences
Health	BHlth	Environment and Geography
Human Geography	BA	Environment and Geography
	BPlan	Environment and Geography
	BSc	Environment and Geography
	BSocSc	Environment and Geography
Information Technology and Computing	BA	Computing
	BCS	Computing
	BIS	Computing
	BIT	Computing
	BIT LLB	Computing
	BSc	Computing
	GDipIT	Computing
	GradCertInfSysTech	Computing
	GradCertIT	Computing
Marine Science	BMarSc	Faculty of Science
Mathematics	BA	Mathematics; Statistics
	BSc	Mathematics; Statistics
Medical Sciences	BMedScs	Biological Sciences; Chemistry and Biomolecular Sciences
Museum Studies	BSc BA	Environment and Geography
Optical Technology	BOptTech	Physics and Engineering
Physical Geography	BA	Environment and Geography
	BSc	Environment and Geography
Physics	BA	Mathematics; Physics and Engineering
	BSc	Mathematics; Physics and Engineering
Population Studies	BA	Environment and Geography
	BSc	Environment and Geography
	BSocSc	Environment and Geography
Psychology	BA-Psych BHlth	Environment and Geography
	BSc-Psych BHlth	Environment and Geography
Resource and Environmental Management	BA	Environment and Geography
	BSc	Environment and Geography
Statistics	BA	Statistics
	BCom	Statistics
	BEc	Statistics
	BSc	Statistics
	GradCertStats	Statistics

INTERDISCIPLINARY STUDIES

The following information relates to degrees and programs of study that are offered by the Faculty of Science by more than one department. There are also many degrees and programs offered within individual departments, please consult departmental entries on the following pages of this Handbook.

Bachelor of Environmental Management

The Bachelor of Environmental Management provides interdisciplinary education in the broad field of environmental management, bringing together biophysical and social science perspectives and approaches to environmental issues. It provides a wide range of skills needed to manage complex situations. The program requires three years of full-time study or the equivalent of part-time study.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Environmental Sciences	Environmental Management	ENV05

Academic advice

The core units and many of the optional units are taught within the Department of Environment and Geography. There is, however, scope for students to take units from other departments and Faculties.

100 level

Required: GEOS118; plus either (students are strongly advised to take both) GEOS111 or GEOS117; plus one 100-level STAT unit or one 100-level COMP or ISYS unit

Options: Generally 12 credit points from units relevant to the student's interests

200 level

Required: GEOS264; GEOS267

Options: Generally 15 credit points from units relevant to the student's interests

300 level (Coherency ENV05)

Required: ENV300; ENV301; GEOS321; GEOS328

Options: At least 4 credit points, but generally 6-8 credit points from: BIOL347; GEOS301; GEOS307; GEOS311; GEOS322; GEOS324; GEOS325; GEOS334; GEOS377; GEOS398; GEOS399; LAW510, or other units related to a specific area of interest.

Honours program

Students can do a fourth year of study to obtain the degree Bachelor of Environmental Management (Honours). The honours year includes both coursework (one third of assessment) and a research thesis (20,000 words and two thirds of the assessment). Supervision of the research component is undertaken by appropriate staff in the Faculty and interested students can discuss options and opportunities with the Program Director.

Bachelor of Environmental Management with Bachelor of Laws

Students can enrol in a combined law degree which includes the environmental management degree. For more information on this degree see the entry for Macquarie Law School in this Part of this Handbook.

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Environmental Sciences	Law	LAW13

Bachelor of Environmental Science

The Bachelor of Environmental Science provides a strong scientific education in vital aspects of environmental science with multidisciplinary studies in the biological sciences, chemistry, geology and physical geography. The program requires three years to complete (longer for part-time students) and students can tailor a program to suit their needs.

The compulsory core unit, common to all Bachelor of Environmental Science programs, is ENV301 Environmental Management Project. ENV301 provides practical experience and is open only to students enrolled in the Bachelor of Environmental Science or the Bachelor of Environmental Management degrees.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Environmental Sciences	Environmental Biology	ENV01
	Environmental Geology	ENV03
	Environmental Physical Geography	ENV04
	Environmental Chemistry	ENV06

Academic advice

Students can select from a wide range of units when constructing their program or choosing a coherent study. For this reason, students are urged to obtain academic advice when structuring their program. Recommended programs for first-year students at 100 level are:

Environmental Biology

Required: BIOL114; BIOL115; STAT170 or STAT171

Options: 6 credit points from: GEOS115; GEOS117; CBMS101; CBMS103

Plus 6 credit points from approved options in Mathematics, Physics or Computing

Environmental Chemistry

Required: CBMS101; CBMS103

Options: 6 credit points from: BIOL114; GEOS115; GEOS117

Plus 9 credit points from approved options in Mathematics, Physics, Statistics or Computing

Environmental Geology

Required: GEOS112; GEOS115; GEOS117

Options: 6 credit points from: BIOL114; CBMS101; CBMS103

Plus 9 credit points from approved options in Mathematics, Physics, Statistics or Computing

Environmental Physical Geography

Required: GEOS112; GEOS117

Options: 6 credit points from: BIOL114; CBMS101; CBMS123; GEOS115

Plus 9 credit points from approved options in Mathematics, Physics, Statistics or Computing

Honours program

Qualified students may undertake a fourth year of study, which includes coursework and a research project, to obtain the degree of Bachelor of Environmental Science (Honours). Honours can be undertaken within each of the four main discipline areas of the Bachelor of Environmental Science (geology, biology, chemistry, physical geography) or may be interdisciplinary.

Bachelor of Marine Science

The Bachelor of Marine Science provides education and training in key areas of marine science. Three coherent studies are available in the program. The marine biology stream has considerable flexibility, providing students with an understanding of the importance of applying sound theoretical principles to the interpretation of living systems. The marine chemical ecology stream combines sound biological principles with advances in theoretical and applied chemistry. Fields such as sensitive analysis of marine samples and discovering new pharmaceuticals in the sea will be examined. Students in the marine geoscience stream also have many options in their degree program and may specialise in, for example, oceanography or marine geology.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Marine Science	Biology	MAR01
	Geoscience	MAR02
	Chemical Ecology	MAR03

Academic advice

Recommended units for each of the three streams are as follows:

Biology

100 level

BIOL114; BIOL115; CBMS101; CBMS103; GEOS116; STAT170 or STAT171; GEOS112; ISYS123

Any 100-level unit with the prefix MATH13* or PHYS

200 level

MAR201; BIOL227

Plus 9 credit points from 200-level BIOL units, especially: BIOL235; BIOL245

Plus 3 credit points from 200-level Science units

300 level (Coherency MAR01)

MAR303; BIOL373

Plus 9 credit points from BIOL3* especially: BIOL368; BIOL369; BIOL372; BIOL374

Plus 3 credit points from 300-level Science units

Chemical Ecology

100 level

BIOL114; BIOL115; CBMS101; CBMS103; GEOS116

At least 6 credit points from 100-level units with the prefix COMP, GEOS, MATH13*, PHYS or STAT

200 level

BIOL227; BIOL235; CBMS204; CBMS208; MAR201

At least 6 credit points from 200-level BIOL units plus 3 credit points from: CBMS207 or CBMS234

300 level (Coherency MAR03)

MAR303; BIOL373; CBMS342; BIOL374

Plus at least 5 additional credit points from 300-level BIOL and/or CBMS units

Geoscience

100 level

BIOL114; CBMS101; GEOS112; GEOS115; GEOS116; GEOS117; 100-level MATH13* unit

Plus 3 credit points from: ISYS114; COMP115

Any other 100-level unit with the prefix MATH13*, PHYS, STAT

200 level

MAR201; GEOS216; GEOS260

Plus at least 10 credit points from BIOL227; BIOL261; CBMS208; GEOS226; GEOS230; GEOS264; GEOS266; GEOS268; PHYS220

Any 200-level unit with the prefix MATH, PHYS, CBMS

300 level (Coherency MAR02)

MAR303; GEOS313

Plus at least 12 credit points from BIOL378; BIOL380; GEOS301; GEOS382

Any other 300-level unit with the prefix MATH, BIOL, CBMS, GEOS

Honours program

Qualified students may undertake a fourth year of study to obtain the degree of Bachelor of Marine Science (Honours). Honours or postgraduate degrees and diplomas in the area of the environment, including marine science, are available either through the Graduate School of the Environment and/or the Departments of Biological Sciences, Chemistry and Biomolecular Sciences, Earth and Planetary Sciences, and Environment and Geography.

Bachelor of Planning

The Bachelor of Planning program is a four-year degree that offers students interested in urban studies a professional planning qualification targeting employment outcomes in the planning field. Graduates will be equipped with a range of skills and knowledge relevant to a number of planning occupations in the public, private, and not-for-profit sectors. The BPlan builds on the Faculty's long record of teaching in urban studies and our strong interdisciplinary programs in environmental studies and social science. The program draws on the Faculty's strong research profile in the fields of urban studies, climate change, risk management and sustainability in urban settings, to provide the Sydney region's first undergraduate planning program with a strong interdisciplinary social and environmental focus. Options in development studies in the BPlan also offer students access to hands-on experience in rapid urban development in the Asia-Pacific.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Human Geography	Planning	HUMG01

Academic advice

The degree utilises units from within the Faculty and across the University.

100 level

Required: DEM127; GEOS111; GEOS118; GEOS117; STAT170

200 level

Required: GEOS212; GEOS264; GEOS267; GEOS281; ENV200

300 level or above

Required: GEOS321; GEOS326; GEOS347; GEOS378; ENV300; POL374

400 level

Required: GEOS461; GEOS462; GEOS463; LAW440

Department of Biological Sciences

Units within the Department of Biological Sciences are designed to introduce the student to a study of living and fossil organisms firmly based on theoretical principles, and to teach the student to understand and to deduce rather than to learn a mass of biological facts.

The range of units available is such that by choosing an appropriate combination a student may develop either specialised or broad interests in biology. Provisions are made for students who want to specialise in one of the biological disciplines available in the department as well as for those whose interests in biology are general. Provision is also made for students whose main interests are in fields of study offered by other departments in the University.

Students may do an honours course in selected aspects of the major biological disciplines. Those who wish to become professional biologists are strongly advised to complete an honours degree.

Distance education program

Part-time evening programs are not available in biological sciences but the Department is actively involved in the University's distance education program.

The Department of Biological Sciences strongly advises that the first two years of external enrolment should generally involve the completion of 100-level science, including mathematics-physics-chemistry-biology, and that the third and fourth years of enrolment should be substantially devoted to the completion of appropriate 200-level science units, before 300-level units are studied. Unless this advice is followed, there may be problems associated with timetabling which will seriously restrict the choice of units available. Note that mathematics units are not available in the external mode but may be available in evening mode on campus.

Bachelor of Science

Students wishing to enrol in a Bachelor of Science may already have studied science and mathematics at school or may wish to commence these studies at university. Units of study are available for students at both of these levels of entry. Many units offered within the Department can be taken either as internal or external units, and the degree may be taken on a full-time or part-time basis. Students entering with sufficient background (school) studies who pursue their degree full-time can expect to complete in a minimum of three years.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Biology	Biology	BLG05
	Biology	BLG07

Academic advice

Practical work is compulsory. Practical classes may take the form of weekly sessions as listed in the Class Timetable, or of block sessions (called on-campus sessions in the External Science Program). In some units both formats are conducted; the Head of Department may recommend a variation to the normal mode of attendance for a student. Such attendance is described as 'composite', and in the Schedule of Undergraduate Units the symbol 'c' is used to denote units taught in the composite mode.

The units BIOL114 and BIOL115 constitute first-year biology and normally a student takes both of these units, for the separate parts are not separate options. The first-year combination of mathematics-physics-chemistry with biology is a common one. Units in chemistry, mathematics and physics are strongly recommended and for some students are mandatory. The non-biological subjects are necessary for an understanding of biology. It is important in first year that students enrol in a background of study which will permit them to change their orientation as their interests develop.

BIOL108 is for students whose major interests are not biological; however students who have passed the unit at a satisfactory level together with other science and/or non-science units, may continue with a limited selection of 200-level units with the prefix BIOL.

A number of units relating to a variety of topics are available at 200 level. For details see the Schedule of Undergraduate Units in Part 3 of this Handbook.

For some of the 300-level electives there will be a preferred background of study outside the Department of Biological Sciences of which the student should be aware. More detailed information is available on the Department's web page www.bio.mq.edu.au.

100 level

The units in which a student enrols will depend upon the HSC subjects and results. Students with relatively little HSC science should select a program of 20 to 25 credit points from the following:

BIOL114; CBMS101; GEOS112; MATH130; BIOL115; CBMS103; GEOS118; GEOS115; GEOS116; GEOS117; STAT170; PHYS159

Students with more advanced HSC mathematics and science should select a program of 24 or 25 credit points from:

BIOL114; GEOS112; CBMS101; MATH130 or MATH135; PHYS140; STAT170 or STAT171; BIOL115; GEOS118; GEOS115; GEOS116; GEOS117; CBMS103; MATH133 or MATH136; PHYS143 or PHYS159

All students enrolled in the Department of Biological Sciences are strongly urged to complete CBMS101 and CBMS103 and PHYS159. All students should take the unit STAT170 before the second half of their second year: STAT170 or STAT171 is a corequisite of BIOL206 Genetics, and a prerequisite of BIOL227 Ecology.

Honours program

Honours programs in biological sciences are undertaken by two types of students. Some wish to complete their undergraduate training, prior to entering the work force, by doing their own research. Others wish to prepare themselves for postgraduate work. Our program is designed to cater for both ambitions.

The Honours program consists of a major research program, guided by one or more academic staff, and a minor coursework component.

Students who are considering Honours are strongly advised to include BIOL235 Biostatistics in their undergraduate course.

For further information and a list of potential Honours projects, please visit the departmental web site www.bio.mq.edu.au/pgrad/honours.html or contact the Honours Convener, Dr Michelle Leishman on +61 2 9850 9180 or at michelle.leishman@mq.edu.au.

Bachelor of Science Advanced biology program

Students with a UAI of at least 95 may be admitted to the advanced biology program. The program offers contact with leading researchers across the full range of disciplines from molecular biology through physiology, genetics, biodiversity and ecology.

Students in the advanced program have access to special small-group tutorials during first, second and third year, discussing recent research advances with leading faculty members. For the remainder of their coursework, they will be encouraged to maintain diverse interests as well as to master fundamentals across a range of biological subjects. Subjects such as languages, philosophy or psychology, as well as other sciences such as physics or climatology, can be included in the program. For students in the advanced program, the Department would often be willing to waive some prerequisites to enable a more interesting program of study to be constructed. Every effort will be made to arrange vacation employment with research teams for advanced program students wanting the direct experience of research.

Majors and coherent studies

The following programs satisfy the requirements for this award.

Area of Study	Coherency	Code
Biology	Advanced Biology	BLG06

Most advanced biology students will wish to take a fourth, Honours, year which provides the opportunity to undertake a research project.

Bachelor of Science Biodiversity and conservation program

Issues in biodiversity and conservation encompass many disciplines. Individual students may wish to construct a personalised program, tailored to their developing career aspirations. In addition to the recommended program, students are therefore encouraged to consider, and seek academic advice about, taking units in areas such as chemistry, demography, earth sciences, economics, information systems and politics.

The prescribed units for the completion of the program are as follows:

100 level

At least 6 credit points in 100-level Biology

At least 3 credit points in any unit with the prefix GEOS

At least 3 credit points in any unit with the prefix STAT

200 level

BIOL206; BIOL208; BIOL227; BIOL235

Plus either: BIOL210 or CBMS215

300 level

BIOL374; BIOL390

Plus four units from the following: BIOL313; BIOL316; CBMS317; BIOL334; BIOL347; BIOL360; BIOL368; BIOL369; BIOL372; BIOL373

Suitably qualified candidates may participate in both this program and the Advanced Biology program.

Majors and coherent studies

The following programs satisfy the requirements for this program.

Area of Study	Coherency	Code
Biodiversity & Conservation	Biodiversity & Conservation	BDV01

Most students will wish to take a fourth, Honours, year to give them direct experience in research.

Bachelor of Science Bioinformatics program

Bioinformatics is offered as an area of study for a Bachelor of Science aimed at training computer-literate biologists in bioinformatics, the growing new discipline of analysis by computer of the very large databases being generated in several areas, such as the human genome project and biodiversity. Careers will be available in sequencing centres, research/academic institutions, pharmaceutical/agrochemical companies, software houses and start-up companies.

All students complete a common 100-level program, which includes core units in biology, chemistry, computing and statistics. Many of the remaining required units will be specified by default as prerequisites for the 300-level units in the various coherent studies. It is expected that students will begin to tailor their program towards one or more coherent studies in second year.

100 level

Required: ISYS114; COMP115; BIOL114; BIOL115; CBMS101; CBMS103; STAT171 or STAT170

200 level

Required: ISYS224; BIOL206; STAT273

In addition to these core units, there are specific coherent studies, presented below

Majors and coherent studies

The following programs satisfy the requirements for this area of study.

Area of Study	Coherency	Code
Bioinformatics	Genomics	BNF01
	Biodiversity/Ecology	BNF02

Entry requirements

Entry is restricted to those with an assumed knowledge of at least HSC mathematics and chemistry. Entry without HSC studies in these two areas is possible, but the degree will extend beyond three years.

Bachelor of Science Palaeobiology program

The Palaeobiology program provides students with the opportunity to investigate the broad sweep of the history of life on Earth. The program is interdisciplinary in nature and extremely valuable for any student studying towards a degree in biology, ecology, geoscience, marine science, museum studies, environmental studies, resource management or biodiversity and conservation. The program provides students with a 'deep time' perspective of the evolution of life that directly complements Biology units which focus on evolutionary processes, embryology, ecology, animal behaviour and genetics of living organisms. Students gain first hand experience of fossil material in the lab and field using cutting edge quantitative and qualitative scientific methods (including applied techniques). The Palaeobiology program can be combined with a range of units in biology, chemistry, earth and planetary sciences and/or museum studies that are appropriate for career paths in exploration and private industry, government, academia, science teaching or science communication.

Students interested in taking the Palaeobiology program should aim to complete a suite of interdisciplinary BIOL and GEOS units. Students should consult specific prerequisites when devising their program, but recommended units include:

100 level

BIOL114, GEOS112, GEOS116

Students are also advised to include BIOL115 and GEOS226 in their first year

200 level

BIOL261 and BIOL208, together with 6 credit points from BIOL and GEOS units

300 level

At least 10 credit points from BIOL378, BIOL 379, BIOL380, BIOL400 (Palaeobiology strand) together with at least 3 credit points from BIOL316, BIOL360, BIOL368, BIOL369, BIOL373, GEOS309, MSM400

Students with a relevant GPA can undertake further research in Palaeobiology via the Honours program.

Majors and coherent studies

The following programs satisfy the requirements for this program.

Area of Study	Coherency	Code
Biology	Palaeobiology	BLG10

Bachelor of Medical Sciences

This degree is designed to provide for those with interests in medical, biomedical and allied health sciences. Careers in those areas and associated disciplines will be available to graduates in both government and private sectors.

All students complete a common 100-level program that includes units of biology, chemistry, psychology, mathematics, physics and statistics to a total of 27 credit points. One or more of these units may be deferred to the second year. Students are encouraged to seek academic advice on this matter.

At the end of the first year, students elect one of the strands – biomedical, medical chemistry, psychomedical sciences – and continue the degree in that strand to completion in the next two years. Students electing to take the biomedical strand may choose units in biochemistry, genetics, microbiology and zoology, with further options in a wide range of subjects drawn from such areas as chemistry, psychology and statistics. In the third year selected areas from second-year studies are extended and new areas such as physiology and immunology may be introduced.

100 level

Required: BIOL114; BIOL115; CBMS101; CBMS103; MATH130 or MATH135; PHYS149; PSY104; PSY105; STAT170 or STAT171

Students electing to take the biomedical strand choose 200-level units which will enable the completion of 24 credit points from the 300-level units listed by Academic Senate. CBMS223 and CBMS224 are recommended core units.

200 level

A 200-level program which allows for adequate choice at 300 level can be constructed from:

BIOL206; BIOL208; CBMS215; CBMS223; CBMS224; BIOL235; BIOL246; CBMS204; PSY236

300 level

CBMS309 and a minimum of 12 credit points from BIOL334; BIOL345; BIOL346; CBMS352; BIOL357; BIOL358; CBMS375

An additional 9 credit points must be taken from 300-level Medical Science units. Recommended units include those above as well as: BIOL316; BIOL369; CBMS342; STAT395; PSY321; BBE300

See the Department of Chemistry and Biomolecular Sciences for details of the medical chemistry strand. Details of the psychomedical strand are listed under the Department of Psychology, Faculty of Human Sciences in this Part of this Handbook.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Medical Sciences	Biomedical	MED01

Entry requirements

Entry to the Bachelor of Medical Sciences assumes knowledge of HSC 2 unit Mathematics (Band 2 or above). Students with no HSC Chemistry and minimal Mathematics can take units at first-year level which will enable them to acquire the above assumed knowledge. Entry without HSC studies in these two areas is possible, but the Degree will extend beyond the normal three years.

Honours Program

Students who have reached a high level of achievement in the Bachelor of Medical Sciences are encouraged to take an Honours year. The structure of the Honours program varies in the three strands of the degree. In the biomedical strand, the program usually comprises a theme topic relevant to the Medical Sciences, one research projected conducted in the Department of Biological Sciences and one conducted in a medical research institute.

Bachelor of Arts or Bachelor of Science with Diploma of Education

Students undertaking the combined Bachelor of Arts with the Diploma of Education or Bachelor of Science with the Diploma of Education who intend to become secondary biology teachers should refer to the *Teacher*

Education Program Student Guide available from the Macquarie University Department of Education or consult an academic adviser in Biological Sciences.

Interdisciplinary studies

The Department of Biological Sciences contributes to the teaching of the following degrees:

Bachelor of Biotechnology
Bachelor of Environmental Science
Bachelor of Marine Science
Bachelor of Science with Bachelor of Arts
Graduate Certificate in Biotechnology

For more detailed information please refer to the entry for interdisciplinary studies within the Faculty of Science in this Part of this Handbook, and to the entry for the Department of Chemistry and Biomolecular Sciences for the Bachelor of Biotechnology.

Units at other universities

Students may enrol concurrently in units at other universities under certain conditions. Usually they do so when units are a desirable addition and complement to their studies at Macquarie University but are not available here. A listing of units already approved for such study is available from the Student Enquiry Service, level 1, Lincoln Building, and enrolment in these is relatively straightforward; where units have not been approved, enrolment is more complex. Students should seek advice from staff involved in the specific area of interest, and from the Undergraduate Academic Advisor within the Department. It should be clearly understood that approval of enrolment is not automatic, and that it is the responsibility of the student to make the necessary arrangements with both Macquarie and the other university, and such arrangements must be completed in the preceding year in which the units are to be taken.

Department of Biological Sciences enquiries

Room: E8B 206
Phone: +61 2 9850 8179
Fax: +61 2 9850 9395
Email: hodbiol@bio.mq.edu.au
Website: www.bio.mq.edu.au

Department of Brain, Behaviour and Evolution

The Department of Brain, Behaviour and Evolution is home to Macquarie University's Animal Behaviour Concentration of Research Excellence. It offers an undergraduate program of studies culminating in the Bachelor of Science as well as an honours degree. Other than enrolling in the Bachelor of Science at the University, no requirements are needed for the introductory unit BBE100 Introduction to Brain, Behaviour and Evolution.

The study of brain, behaviour and evolution is an interdisciplinary study, encompassing both biological and psychological sciences. Macquarie University's program is the only program of its kind in Australia. Understandably, besides the inherent interest in the topic of study, units offered by the Department complement the study of both biology and psychology well.

Bachelor of Science

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Animal Behaviour	Brain, Behaviour and Evolution	ANB01

BBE units include an introductory unit in the first year (BBE100 Introduction to Brain, Behaviour and Evolution), and two second-year units. BBE200 Animal Behaviour is the link to third-year BBE units, while BBE201 Evolution and Human Behaviour is a unit of general interest. Third-year units include BBE300 Animal Communication, BBE301 Brain and Behaviour, and BBE302 Behavioural Ecology.

In 2010, BBE will become a major and BBE303 Independent Research Project in Brain, Behaviour and Evolution and BBE304 Contemporary Topics in Brain, Behaviour and Evolution, a capstone unit of the major, are scheduled to launch.

For more information on the undergraduate program, please contract Dr Ken Cheng at ken.cheng@mq.edu.au.

Honours program

The Honours program in Brain, Behaviour and Evolution is taken by two kinds of students:

(1) those who wish to complete their undergraduate training with a significant research project before entering the work force, and
(2) those who wish to pursue postgraduate studies.

Our program is designed to cater to both ambitions.

The Honours program consists of a major research project, supervised by an academic staff member, and a minor component of coursework. We offer necessary infrastructure to support the project, and financial support for the research operating expenses. The one-year Honours program can be started in first or second semester. Statistics at the second-year level (BIOL235, PSY248, or STAT270) is highly recommended for the Honours program. For further details, see the Department's web page on the Honours program: http://galliform.bhs.mq.edu.au/~cisab/Honours.html or contact the course convenor Dr Andrew Barron at andrew.barron@mq.edu.au.

Department of Brain Behaviour and Evolution enquiries

Room: Science Centre, E7A level 1
Phone: +61 2 9850 6000
Fax: +61 2 9850 6565
Email: scienceenquiries@mq.edu.au
Website: http://galliform.bhs.mq.edu.au/~cisab/

Department of Chemistry and Biomolecular Sciences

The Department of Chemistry and Biomolecular Sciences caters for students with a variety of entrance backgrounds and career aspirations, including those who aim to become professional chemists or biomolecular scientists and those who recognise that a molecular insight is vital to many other fields of science, industry, environmental studies, business and general community interests.

The Department offers Bachelor of Science and Bachelor of Arts degrees where majors can be achieved in chemistry and biomolecular sciences. Also offered are a number of specialised degrees in which molecular sciences play a significant role.

Distance education program

The 100-level units CBMS101, CBMS103 and CBMS123 are offered externally every year. CBMS234 is also offered externally. Full details of the external program are available from the Centre for Open Education.

Bachelor of Science, Bachelor of Arts

The Bachelor of Science (or Bachelor or Arts) course offers the greatest flexibility and diversity of all the degree programs offered by the Department, as not only science but specially designated arts and humanities subjects can be counted towards the degree.

To qualify for the Bachelor of Arts or Bachelor of Science a student must complete successfully an approved combination of units at 300 level. Any such combination must have been certified by Academic Senate to provide a substantial and coherent study at that level.

Academic advice

For students taking a full chemistry major, the preferred entrance background is HSC Chemistry and Mathematics. An additional HSC science subject such as Physics or Biology is advantageous, but not essential. Students should enrol at 100 level in the two core units CBMS101 Introductory Chemistry A and CBMS103 Introductory Chemistry B.

For most chemistry major students, the remaining program at 100 level will comprise a selection of other units with prefixes such as BIOL, COMP, ELEC, GEOS, MATH, PHYS and STAT, corresponding to the particular pattern of study that they intend to pursue. This selection of 100-level units should provide the necessary prerequisites for subsequent 200- and 300-level units consistent with the above coherent study options. The humanities-style unit CBMS123 History and Philosophy of the Molecular Sciences is another option.

200 level

At 200 level, chemistry major students usually need to enrol in each of the following three CBMS units: CBMS204, CBMS207 and CBMS208. Students interested in biomolecular sciences (eg biochemistry, biotechnology, microbiology) usually need to enrol in CBMS215, CBMS223 and CBMS224. They are strongly advised to support these units with further studies in biology, computing, earth sciences, electronics, mathematics and/or physics. CBMS234 is another option.

300 level

Students undertaking a full chemistry major require at least 12 credit points from the following 300-level CBMS units: CBMS325, CBMS329, CBMS332, CBMS340, CBMS341 and CBMS342. Note that CBMS329, CBMS340, CBMS341 and CBMS342 are offered in alternate years, so careful planning is required if these units are to be included in a three-year degree program. Students with an interest in the biomolecular sciences should consider including one or more of CBMS305, CBMS309, CBMS352 and CBMS375. Moreover, students with other interests will find many opportunities to combine 300-level CBMS units with relevant 300-level units offered by other disciplines.

Honours program

The Bachelor of Science Honours program in Chemistry and Biomolecular Sciences consists of a full-year research project, carried out under the guidance of one or more supervisors. Potential candidates are free to choose their preferred area of research from a list of projects prepared each October by departmental staff members. Research findings are presented in a written report. Each Honours student normally presents two departmental seminars on their selected research topic. In addition, there are two units of coursework that include a variety of research-level topics. The Department supports applications for Honours Scholarships ($5000) by Australian students with a Bachelor of Science (or equivalent) and a GPA of 3.8 or higher.

The Honours program is best attempted full-time. Honours may be undertaken part-time if full-time employment or other reasons prevent full-time attendance. However, some projects may not be practicable on a part-time basis. Both full-time and part-time programs may be started mid-year.

Majors and coherent studies

The following programs satisfy the requirements for these degrees.

Area of Study	Coherency	Code
Bioinformatics	Genomics	BNF01
	Molecular Analysis	BNF03
Biomolecular Sciences	Biochemistry - Microbiology	BMS01
Chemistry	Chemistry	CHE01
		CHE06
	Biological Chemistry	CHE02
		CHE05
	Molecular Design	CHE17
	Molecular Analysis (Biomolecular Analysis)	CHE18
	Molecular Analysis (Chemical Analysis)	CHE19
	Molecular Analysis (Environmental Analysis)	CHE20

Advanced Chemistry Program

Students are admitted to the Advanced Chemistry Program on the basis of a high UAI (at least 95), together with HSC Chemistry, or their equivalents.

In addition to the standard Bachelor of Science program, students must enrol in three specialist units, CBMS112 and CBMS113 (each worth 1 credit point) at 100 level and CBMS388 (worth 1 credit point) at 300 level. These units cover material designed to build strong foundations for research and to develop insight into the chemical profession. Students in the program are also given the opportunity to participate in the research of the Department from their first year on and will be encouraged to take Honours where possible.

Majors and coherent studies

The following coherency satisfies the requirements for this program.

Area of Study	Coherency	Code
Chemistry	Advanced Program in Chemistry	CHE22

Any Chemistry major student with a high GPA (at least 3.5) may, at any time before they commence their final year of Bachelor of Science studies, apply to enter the Advanced Chemistry Program. Enquiries should be addressed to the Head, Department of Chemistry and Biomolecular Sciences.

Bachelor of Biotechnology

Macquarie University has a long history of cutting-edge research in the field of biotechnology. This degree has a strong interdisciplinary and practical focus reflective of the needs of the marketplace. Drawing on expertise across discipline areas, the program also benefits from specialist knowledge in proteomics via the Australian Proteome Analysis Facility and the newly established Biotechnology Research Institute.

The first year of the three-year bachelor degree has a solid foundation in mathematics, physics, chemistry and biological sciences. In the second year, molecular biology and chemistry are introduced to teach skills elementary to general biotechnology, drug discovery and sensitive detection methodologies. In the final year the degree offers a contemporary focus on molecular biotechnology. Lectures will link functional proteomics/genomics to biotechnology with several examples and address selected aspects of modern biotechnology.

The unique nature of the Macquarie degree is further emphasised in CBMS301 Technology Mini Project. In this 4 credit point unit, students will, according to their personal interest, select a technology/method in which to be trained. Macquarie University has an impressive portfolio of biotechnology-related technologies and instrumentation in on-site research labs and nearby industry. This offering caters for students' personal interests and will assist in preparation for the workforce.

If you intend to enrol in this degree program, please contact the Department of Chemistry and Biomolecular Sciences.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Biotechnology	Biotechnology	BTEC01

Bachelor of Medical Sciences

This degree is designed to provide for those with interests in medical, biomedical and allied health sciences. At the end of the first year, students can elect to take the Medical Chemistry strand and continue the degree in that strand to completion in the next two years. For more information see the entry under the Department of Biological Sciences in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Medical Sciences	Medical Chemistry	MED04

Graduate Certificate in Biotechnology

The Graduate Certificate in Biotechnology will provide a substantial practical basis for graduates who are seeking to enrol in the Master of Biotechnology or the Master of Biotechnology with the Master of Commerce and who do not have a relevant science background. The program requires completion of 12 credit points which involves full-time study over one semester.

Majors and coherent studies

The following program satisfies the requirements for this award.

Area of Study	Study Pattern	Code
Biotechnology	Biotechnology	BTEC20

Interdisciplinary studies

The Department of Chemistry and Biomolecular Sciences contributes to the teaching of the Bachelor of Environmental Science and the Bachelor of Marine Science. Please refer to the entry for interdisciplinary studies within the Faculty of Science in this Part of this Handbook.

Professional accreditation

Students completing the requirements for most of the Bachelor of Science coherent study prescriptions will be eligible to apply for membership of the Royal Australian Chemical Institute Incorporated (RACI Inc.) and to attain the title of Chartered Chemist. The Department of Chemistry and Biomolecular Sciences is prepared to give advice concerning appropriate choices of units to achieve this objective.

Academic advice

For some 200- and 300-level units, such as CBMS207, CBMS325 and CBMS329, it is recommended to students that they should have successfully completed 100-level MATH and PHYS units such as MATH132, MATH135 or MATH136 and PHYS140 or PHYS143 or PHYS149. Students seeking professional accreditation by RACI Inc. (see above) require a foundation of 100-level MATH and PHYS units. The Department of Chemistry and Biomolecular Sciences offers special assistance to students who lack assumed knowledge in mathematics or physics.

Bachelor of Science with Diploma of Education

Students planning a science teaching career should include as much chemistry as possible. Students undertaking the concurrent Bachelor of Science with Diploma of Education (BSc DipEd) course should take the standard 100-level science program and should not start education units until their second year. Full details of course requirements are set out in the *Teacher Education Program Student Guide* available from the Macquarie University Department of Education.

Department of Chemistry and Biomolecular Sciences enquiries

Room: F7B 220
Phone: +61 2 9850 8275
Fax: +61 2 9850 8313
Email: ask_us@cbms.mq.edu.au
Website: www.chem.mq.edu.au

Department of Chiropractic

Chiropractic is an important part of complementary medicine, which recognises the importance of body structures and how they affect health. Largely, practitioners engage in spinal adjustment and manipulation as well as other measures to treat abnormalities of structure and function, and to assist the natural recuperative powers of the body.

Bachelor of Chiropractic Science

The Bachelor of Chiropractic Science program is a three-year fully prescribed degree which provides a solid base in scientific methods and concepts required for the study and practice of chiropractic. It includes anatomy, histology, biochemistry, physiology, microbiology, pathology, radiology and chiropractic principles and skills. The chiropractic principles and skills units introduce and develop the key concepts of chiropractic philosophy and techniques. Successful completion of the Bachelor of Chiropractic Science qualifies students for admission to the Master of Chiropractic. For students who wish to practise as a chiropractor, completion of the Master of Chiropractic is required.

Please note: Completion of the Bachelor of Chiropractic Science alone does not allow to a student to practise as a chiropractor.

Majors and coherent studies

The Bachelor Degree Rules require, among other things, at least 18 credit points at 300 level or above. The following programs satisfy the requirements for these degrees.

Area of Study	Study Pattern	Code
Chiropractic	Chiropractic	CHRP01

Entry requirements

There are no formal prerequisite subjects to the degree, however it is advisable for applicants to have passed HSC Biology, Chemistry and Physics. International students should refer to the Macquarie International website (www.international.mq.edu.au) or phone +61 2 9850 7346 for entry requirements and application details. For alternative routes of admission available to domestic students (eg, Mature age or Non-Award entry), please contact the Student Enquiry Service, Lincoln Building, phone +61 2 9850 6410.

Professional accreditation

The degrees offered in Chiropractic are fully accredited and internationally recognised. Professional accreditation with the NSW Chiropractic Registration Board requires the award of Master of Chiropractic. Completion of the Bachelor program allows entrance into the Master of Chiropractic program. Note that entry into the Master of Chiropractic is also possible through alternative means. Please refer to the Department website for details at www.chiro.mq.edu.au.

Bachelor of Science

Human biology program

The Department of Chiropractic offers a comprehensive undergraduate program of study which covers gross anatomy and human physiology. Students undertake a core selection of units in anatomy and physiology, and may select a range of electives in the areas of psychology, molecular biology, chemistry, biology and the medical sciences (pathology, microbiology and diagnosis).

This program of study is useful for students wishing to pursue further studies at a postgraduate level in the areas of chiropractic, osteopathy, podiatry or medicine. Please note that only chiropractic studies are available at Macquarie University at this time. Students particularly interested in chiropractic should discuss their electives with the Department of Chiropractic.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Biology	Human Biology - Anatomy and Physiology	BLG09

Department of Chiropractic enquiries

Room: E7A 222
Phone: +61 2 9850 9386
Fax: +61 2 9850 9389
Email: chiro_admin@els.mq.edu.au
Website: www.chiro.mq.edu.au

Department of Computing

The Department of Computing offers a comprehensive teaching program that covers the spectrum from short courses for school teachers, through to undergraduate, honours, postgraduate and PhD study. Specific units of study include traditional computer science, programming languages, software engineering, information systems, through to artificial intelligence, web technologies, eBusiness, information security and language technology.

Entry requirements

While there are no specific entry requirements for the Bachelor degree programs detailed below, some first-year units, particularly accounting and mathematics, do have specific entry requirements. Students should refer to the Schedule of Undergraduate Units in this Handbook and to the section 'Academic advice for 100-level Mathematics' in the entry for the Faculty of Science in this Part of this Handbook.

Interdisciplinary studies

A range of joint, double and combined degrees is available to students wishing to combine the study of computing and information technology with business administration, actuarial studies or law, in particular via the Bachelor of Business Administration with the Bachelor of Information Technology, the Bachelor of Commerce – Actuarial Studies with the degree of Bachelor of Science, or the Bachelor of Information Technology with the Bachelor of Laws. See degree entries for program details.

Bachelor of Computer Science

This flagship degree provides a rigorous program of study in the theory and applications of computer science. The core study includes programming with modern languages and software-design methods, computer systems with an emphasis on hardware design, operating systems and networks, and mathematical foundations of computer science. In the final year, students apply their knowledge working with an industry partner.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Information Technology and Computing	Computer Science	COMP01

Professional accreditation

The Bachelor of Computer Science is professionally accredited with the Australian Computer Society.

Academic advice

To qualify for this degree you must complete a full-year project unit (COMP340) which has a prerequisite of a GPA of 2.75. The intention of this prerequisite is to ensure the quality of graduates with this named degree. You should be aware of this requirement when planning your course of study. Students who do not attain the required GPA may transfer to the Bachelor of Science or Bachelor of Arts degrees.

When choosing optional units or electives, refer to the section 'Academic advice for all programs' below.

Bachelor of Information Technology

The Bachelor of Information Technology is a comprehensive program that specialises in developing the full range of skills required for a career in computer software development. The core program concentrates on developing practical skills in programming, information systems and software engineering. A choice is then possible from the extensive range of optional units available, including networks, security, web technology, e-commerce technology, systems software, computer hardware and language technology.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Information Technology and Computing	Information Technology	INFT01

Professional accreditation

It is anticipated that the Bachelor of Information Technology will be professionally accredited with the Australian Computer Society.

Academic advice

To qualify for this degree you must complete a full-year project unit (COMP345/ISYS346) which has a prerequisite of a GPA of 2.0. The intention of this prerequisite is to ensure the quality of graduates with this named degree. You should be aware of this requirement when planning your course of study. Students who do not attain the required GPA may transfer to the Bachelor of Science or Bachelor of Arts degrees.

When choosing optional units or electives, refer to the section 'Academic advice for all programs' below.

Bachelor of Information Technology with Bachelor of Laws

Students can enrol in a combined law degree which includes the information technology degree. For more information on this degree see the entry for Macquarie Law School in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Information Technology and Computing	Information Technology and Law	INFT03

Bachelor of Information Systems

Information Systems involve the study of the technology and application of computing and other information systems to business and non-business (such as government) organisations. Modern organisations, both government and business, deal with large amounts of information and require professionals skilled in the creation and management of systems to handle this information. Such professionals require technical, managerial and wider business skills. This degree prepares students for a career in the development and management of information systems in the context of commercial and government organisations. The early part of the program includes foundational units in information systems and related areas including software engineering, accounting, marketing, economics and telecommunications. Later studies include application implementation, project management, systems analysis and design, databases and systems integration. The program emphasises both the technical aspects of information systems and the management aspects, especially the integration of information systems into core business processes.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Patterns	Code
Information Technology and Computing	Information Systems	INFT02

Professional accreditation

It is anticipated that the Bachelor of Information Systems will be professionally accredited with the Australian Computer Society.

Academic advice

To qualify for this degree you must complete a full-year project unit (ISYS346) which has a prerequisite of a GPA of 2.0. The intention of this prerequisite is to ensure the quality of graduates with this named degree. You should be aware of this requirement when planning your course of study. Students who do not attain the required GPA may transfer to the Bachelor of Science or Bachelor of Arts degrees.

When choosing optional units or electives, refer to the section ‘Academic advice for all programs’ below.

Bachelor of eBusiness

An exciting specialist program focusing on the design, implementation and management of commercial activities over the internet and the world wide web. These activities include sharing of business information, maintaining business relationships and conducting business transactions. Three streams—technology, management and multimedia—provide the opportunity to concentrate on a particular aspect of e-business.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Study Pattern	Code
eBusiness	Technology	EBUS01
	Multimedia	EBUS02
	Management	EBUS03

Academic advice

To qualify for this degree students in the Technology or Management stream (EBUS01, EBUS03) must complete a full-year project unit (COMP345/ISYS346) which has a prerequisite of a GPA of 2.0. The intention of this prerequisite is to ensure the quality of graduates. You should be aware of this requirement when planning your course of study. Students who do not attain the required GPA may transfer to the Bachelor of Science or Bachelor of Arts degrees.

Bachelor of Science, Bachelor of Arts

These degrees permit flexibility, allowing students to study a range of computing subjects, together with subjects of their choice (mostly science for the Bachelor of Science). Most students choose to combine computing with closely related sciences such as electronics, mathematics, physics and statistics.

Majors and coherent studies

The following programs satisfy the requirements for these degrees.

Area of Study	Coherency	Code
Information Technology and Computing	Computing	CMP01
	Computing	CMP02

Professional accreditation

These degrees are not accredited with the Australian Computer Society (ACS); however, many combinations of units complying with coherent study CMP01 or CMP02 will contribute towards the ACS requirements for membership.

Academic advice

When choosing units, refer to the section ‘Academic advice for all programs’ below.

Bachelor of Business Administration with Bachelor of Information Technology

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Business	Business and Information Technology	BUSN34

Bachelor of Commerce – Actuarial Studies with Bachelor of Science

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherent Study	Code
Actuarial Studies	Actuarial Studies & Computing	ACT14

Bachelor of Science with Diploma of Education (for Mathematics and Information and Computing Technology student teachers)

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Study Pattern	Code
Teacher Education	Information Technology	TESC02
	Information Systems	TESC03

Academic advice

Students who are taking the combined Bachelor of Arts with the Diploma of Education or Bachelor of Science with Diploma of Education who wish to satisfy the NSW Department of School Education requirements for promotion should carefully consult the *Teacher Education Program Student Guide* available from the Macquarie University Department of Education.

In choosing elective units, students should consider the academic advice below.

Academic advice for all programs

Most computing students, whatever their degree program, undertake much the same first-year units. The details vary depending on the student's background. ISYS114 Introduction to Systems Design and Data Management and COMP115 Introduction to Computer Science are entry points to mainstream computing units. COMP125 Fundamentals of Computer Science continues the programming aspects of these units as well as introducing computer architecture.

ISYS123 Introduction to Information Systems and Technologies is an introductory unit of study for students with little or no experience using computers who want to develop a basic level of computer literacy. It includes training in the use of common office applications, and an introduction to Information Systems, which is the use of Information Technology in organisations such as businesses.

Most computing students must also undertake some mathematics, generally comprising one first-year unit and one second-year unit. Some programs require an additional first-year mathematics unit.

The programs for computing degrees consist of required units, optional required units (limited choice) and electives (free choice). The required and optional required units are detailed in the coherent studies and study patterns in the Schedule of Programs of Study in Part 3 of this Handbook.

Where a coherent study or study pattern specifies a particular unit, it often happens that a unit no longer offered is an acceptable alternative; this is particularly relevant for students transferring between degrees. The following lists such equivalent units:

Current Unit	Alternative
BUS202	BUS200
COMP115	COMP124
COMP347	COMP327, COMP341
ELEC141	ELEC274
ELEC166	ELEC176
ELEC241	ELEC374, ELEC375
ELEC342	ELEC374
ISYS114	COMP114, COMP124
ISYS123	COMP123
ISYS154	COMP154
ISYS224	COMP224
ISYS227	COMP227
ISYS326	COMP326
ISYS346	COMP346
ISYS360	MPCE360, MPCE361

The units listed below are required in some programs and, for other programs, are recommended electives that provide the opportunity for students to specialise in the listed areas.

Information Systems

ISYS114 (or ISYS154); ISYS201; ISYS224; ISYS227; ISYS326; COMP329; ISYS301; ISYS302; ISYS346; GEOS264

Software Development and Software Engineering

COMP115 (or COMP155); COMP125 (or COMP165); COMP225; ISYS227; COMP229; COMP332; COMP342; COMP340; COMP345; ISYS303

Networks and Security

COMP247; COMP249; COMP343; COMP347

Language Technology

SLP148 (interdisciplinary unit); COMP248; COMP348; COMP349

Computer Hardware

ELEC141; COMP226; ELEC240; ELEC241; ELEC280; ELEC342; ELEC343

Physics, Photonics and Optical Technology

PHYS149; PHYS220; OPTO221

Formal Logic

PHIL134; PHIL281; COMP329

Accounting

ACCG250; ACCG355

These units are recommended to students with interests in information systems and general commercial applications. Introductory accounting units have restrictions on entry; refer to the Schedule of Undergraduate Units in Part 3 of this Handbook for details.

Statistics

STAT170; STAT171; STAT270; STAT278; STAT279; STAT329; STAT378; STAT379

Management

ISYS360

Honours in Computing (BA, BSc, BCS, BIT, BIS, BeBus)

The Department of Computing offers the opportunity for exceptional students to undertake an honours program. It is available to all students who have qualified for a degree with a major study in computing with a GPA of at least 2.5 overall and 2.5 at 300 level. The program allows for specialisation in areas such as computer science, computational science (numerical computing), information systems, cryptography, security or language technology. Admission requires a substantial background in computing and mathematics, usually including at least five 300-level COMP or ISYS units.

Honours students are normally required to take four half-year units and a compulsory half-unit (1.5 credit points) on academic writing and presentation, and to attend a range of seminars to complete half of the program. To complete the remaining half, students undertake a project (including a seminar component). The four units are selected from the honours units available and, subject to approval by the honours convener and the relevant section of the University, a limited number may also include: 300-level COMP or ISYS units; 300-level or 400-level MATH, ELEC or INFO units; 800-level ITEC units; relevant units from other Faculties; and, in exceptional circumstances, units from other universities.

Students may choose their project from a list provided by the Department or may propose a topic of their own. The topic must then be approved and a member of staff appointed as their supervisor. Students are required to report on their project at a series of three seminars spread over the time of their candidature. They must present a final, written report on their project by the first day of the relevant undergraduate examination period.

Graduate Certificate in Information Technology, Graduate Diploma in Information Technology

Through its Postgraduate Professional Development Program, the Faculty offers a Graduate Certificate in Information Technology, requiring 16 credit points, and a Graduate Diploma in Information Technology, requiring 32 credit points,. These programs are suitable for graduates from other disciplines who seek university qualifications in information technology. The programs feature course material in an intense, accelerated format, delivered mainly online with some on-campus components.

Units available in these programs cannot be taken for credit towards the bachelor degrees offered by the Faculty.

Candidates for these programs must have a Bachelor degree in any discipline from an Australian university (or equivalent) with a GPA of 2.5. Candidates are advised that the course material assumes that they will understand basic mathematical concepts, be able to apply logical abstraction to practical problems, and be familiar with using computers and common office software, including installing and configuring new applications. Candidates who do not have a Bachelor degree but who do have substantial (minimum three years) professional employment experience in Information Technology or Computing may still be eligible for entry.

Application forms are available from the Postgraduate Studies Section on +61 2 9850 7488 or visit level 1, Lincoln Building.

Majors and coherent studies

The following program satisfies the requirements for the Graduate Certificate in Information Technology.

Area of Study	Study Pattern	Code
Information Technology & Computing	Information Technology	INFT11

Majors and coherent studies

The following program satisfies the requirements for the Graduate Diploma in Information Technology.

Area of Study	Study Pattern	Code
Information Technology & Computing	Information Technology	INFT10

Department of Computing enquiries

Room: E6A 202
Phone: +61 2 9850 9500
Fax: +61 2 9850 9102
Email: enquiries@ics.mq.edu.au
Website: www.comp.mq.edu.au

Department of Environment and Geography

The Environmental Science discipline involves the study of landscapes, rivers, the atmosphere and the environment in the broadest sense. It includes studies in applied and theoretical aspects of earth surface science and climate science. There is the Bachelor of Environmental Science, and within the Bachelor of Arts and Bachelor of Science degrees there are five strands: climate (atmospheric) science, geoecology, geographic information science, resource and environmental management and physical geography. The discipline also contributes to the Bachelor of Marine Science. Employment opportunities exist with government departments involved in meteorology, conservation, environmental and land management, national parks, agriculture and water resources, as well as with local government, teaching, engineering and environmental consultancies and a range of other companies. Students aiming to complete a degree in the environmental science discipline should consider a wide range of science units.

Human geography involves the study of places, peoples, cultures and landscapes, including interactions among all four and impacts requiring policy action. There is a particular focus on urban and social planning, resource management, environmental planning, development studies, population and health studies, Geographic Information Systems (GIS) and service provision. Within the Bachelor of Arts and Bachelor of Science degrees, there are five main strands: development studies; economic, social, population and cultural geography; resource and environmental management; urban and regional development; and GIS. Specialist programs are also available in the Bachelor of Planning, Bachelor of Environmental Management and Bachelor of Arts in Development Studies and Culture Change. Employment opportunities exist with many government departments involved in planning, housing, transport, economic and social statistics, Aboriginal affairs and tourism, as well as with local government, teaching and consultancy firms. Students aiming to complete a degree in human geography or environmental management should consider a wide range of social science, science and economics (including demography) units.

Health Studies is a broad field that critically analyses the diversity of the human experience of health, illness and wellbeing in a range of contexts (from the local to the global), and from a wide variety of interdisciplinary and multi-disciplinary perspectives. The Bachelor of Health degree, and the double degrees in Psychology and Health described below, produce graduates thoroughly grounded in the concepts and skills of the interdisciplinary field of Health Studies and equipped with a range of transferable skills. Employment opportunities exist in a range of functional areas – such as health policy and planning, health promotion and education, health program development and evaluation, health research and advocacy – and across a range of sectors – such as government, community-based and other not-for-profit organisations, private companies and practices, industry and professional associations, and unions.

Distance education program

Many units offered by the Department of Environment and Geography are offered externally, using a combination of iLectures recordings, hard-copy handout material and the internet. The combination of methods of outreach varies, with some units emphasising one medium more than another, but all three are used. Access to the internet is required for effective study in distance mode.

On-campus sessions are held for some units, as specified, but some are optional. On-campus sessions are usually held at Macquarie University, except where other localities are specified, commonly for the purposes of fieldwork. In these circumstances, the dates shown do not include the time needed to travel to or from the venue, and students need to make due time allowance for travel. Information about the future offering of external units may be obtained from the Centre for Open Education, see www.coe.mq.edu.au.

Cross-crediting allows students access to external units offered by several other universities. Students normally have to arrange their enrolment in these units during October of the preceding year, so this option is not available to those in their first year. The external offerings in each discipline are listed under the departmental entries in this Part of this Handbook or are obtainable from the Centre for Open Education.

Composite study mode

Some units are offered in a composite mode to provide both 'internal' and 'external' access to metropolitan part-time students. Composite mode indicates that some components of the unit may require on-campus attendance, and other components are available in distance mode. Students should consult the unit description and/or staff in charge of the unit for full details.

Environmental Science discipline

Majors and coherent studies

The Bachelor Degree Rules require, among other things, at least 18 credit points at 300 level or above, including an approved combination such as the ones referred to below. Most of the coherent combinations referred to below are approved for either the Bachelor of Arts or the Bachelor of Science degree.

Area of Study	Coherency	Code
Atmospheric Science	Atmospheric Science	ATM01
		ATM02
Geoecology	Geoecology	GEC01
		GEC02
Geographic Information Science	Geographic Information Systems	GIS02
		GIS04

Human Geography	Geography	HGE12
		HGE14
Physical Geography	Physical Geography	PHG01
		PHG02
Resource & Environmental Management	Resource & Environmental Management	REM03
		REM04

Students interested in Environmental Science should also refer to the details for the Bachelor of Environmental Science (coherency ENV04) under Interdisciplinary Studies in the Faculty of Science in this Part of this Handbook.

Academic advice

100 level

All students interested in the environmental science discipline should take: GEOS117

Students interested in Geoecology should also take: GEOS112; GEOS118; GEOS115; BIOL114

Students interested in Atmospheric Science should take GEOS117 plus: GEOS112; GEOS118; BIOL114; COMP115; MATH130 or MATH135; STAT170 or STAT171

The remaining 100-level units could be made up from the following: GEOS111; BIOL115; CBMS123; PHYS159; ISYS123 and/or ISYS114 and/or COMP115

200 level

The core units at 200 level servicing the specialist areas at 300 level are: GEOS214; GEOS216; GEOS237; GEOS264; GEOS267; GEOS266

Other 200-level units which may be added include (but are not restricted to): BIOL210; BIOL227; GEOS226; GEOS230; GEOS260; PHYS220

Students interested in Atmospheric Science should consider 200-level MATHS, PHYS, BIOL and COMP units.

300 level

The principal 300-level units in the environmental science discipline are:

Environmental Science: ENV301; 9 credit points from GEOS301, GEOS313, GEOS317; GEOS325, GEOS328; GEOS334; GEOS382; GEOS398; GEOS399

Geoecology: GEOS317; GEOS328; GEOS334; GEOS382; GEOS398; GEOS399

Atmospheric Science: GEOS301; GEOS313; GEOS325; GEOS328

Highly recommended related units for students interested in geographic information science are: GEOS382; GEOS378

Other related units for all environmental science discipline coherencies include: GEOS321; GEOS307; GEOS377; BIOL313; BIOL347; BIOL368

Atmospheric Science coherencies often include MATH, PHYS and COMP units at 300 level.

Human Geography discipline

Majors and coherent studies

The Bachelor Degree Rules require, among other things, at least 18 credit points at 300 level or above, including an approved combination such as the ones referred to below. Most of the coherent combinations referred to below are approved for the Bachelor of Arts, the Bachelor of Science or the Bachelor of Social Science degree.

Area of Study	**Coherency**	**Code**
Geographic Information Science	Geographic Information Systems	GIS02
		GIS04
Human Geography	Environmental and Cultural Geography	HGE06
	Geography	HGE12
		HGE14
	Human Geography	HGE13
		HGE15
		HGE16
	Urban and Regional Management	HGE17
		HGE18
		HGE19
Population Studies	Human Geography	PPL15
	Population Studies	PPL13
		PPL19
	Population Studies-Social	PPL14
	Population and Society	PPL16
	Population/Social/Cultural Geography	PPL17
		PPL18
Resource and Environmental Management	Resource and Environmental Management	REM03
		REM04

Students interested in Human Geography should also refer to the details for the Bachelor of Environmental Management (coherency ENV05) under Interdisciplinary Studies in the Faculty of Science in this Part of this Handbook.

Academic advice

100 level

All students interested in Human Geography should take GEOS111; GEOS118

Students interested in GIS should also include any 100-level COMP, ISYS or STAT unit, or either STAT170 or STAT171.

200 level

GEOS215; GEOS219; GEOS262; GEOS264; GEOS267; GEOS281

300 level

GEOS311; GEOS321; GEOS322; GEOS324; GEOS326; GEOS347; GEOS378; GEOS387

Development Studies program

Required: GEOS311; GEOS324

Optional units: GEOS321; GEOS322; GEOS378

With the wide choice of units available in this program, intending students are strongly advised to consult an academic adviser to ensure that prerequisites for any 300-level units are met.

Population/Social/Cultural program

At least 12 credit points from the following: GEOS311; GEOS322; GEOS324; GEOS326

Urban and Regional Management program

Required: GEOS326 and at least two units from: GEOS321; GEOS311; GEOS322; GEOS324; GEOS347; GEOS378

Bachelor of Environmental Management program

Required: ENV300, ENV301, GEOS321, GEOS328 and GEOS264

Bachelor of Social Science

The Bachelor of Social Science degree offers a broad education in social science subjects, spanning such diverse discipline areas as human geography, sociology, anthropology, media and mass communications and indigenous studies, as well as related subject areas in biology, law and history. It emphasises both theoretical and applied aspects in each of these areas.

For more details see the entry for interdisciplinary studies within the Faculty of Arts in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Human Geography	Human Geography	HGE15
	Urban and Regional Management	HGE19

Bachelor of Arts Development Studies and Culture Change program

This program is offered collaboratively by the Department of Environment and Geography (Faculty of Science) and Department of Anthropology (Faculty of Arts).

The Development Studies and Culture Change program is an interdisciplinary degree that is comprehensive in its scope and detailed in its focus on issues and trajectories of modernisation and development within socio-political, environmental, legal and cultural contexts. The degree program addresses diverse approaches analysing processes of change in the lives of people and communities around the world. It offers students an exciting combination of units focusing on, and creating expertise in, the ways in which development operates within international political, economic, environmental and cross-cultural relations and the crucial role culture change plays in the improving or diminishing opportunities and choices facing people in diverse parts of the world. The degree provides students with theoretical, practical and research skills that can be applied to employment in a wide range of fields related to development assistance, international aid, community development, and change management in cross-cultural settings.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Development Studies	Development Studies	DEVS01

Bachelor of Arts, Bachelor of Science Resource and Environmental Management Studies program

This comprehensive program of study in resource and environmental management includes core units complemented by specialist units from other areas. The program is flexible and allows students to build up considerable specialist expertise in fields as diverse as Aboriginal studies, anthropology, atmospheric science, biology, computing, contaminated sites management, ecology, economics, geoecology and law, while also developing a broad professional literacy and practical skills across a wide range of biophysical and social sciences. Because the program is flexible and diverse, employment possibilities are equally wide-ranging. Potential employers include organisations such as the National Parks and Wildlife Service, the Environmental Protection Authority, the Department of Infrastructure, Planning and Natural Resources, catchment management authorities, other federal, state and local government departments, land councils, mining companies and engineering and environmental consultancies.

Interested students should also refer to the Bachelor of Environmental Management under Interdisciplinary Studies in the Faculty of Science in this Part of this Handbook.

Majors and coherent studies

The following programs satisfy the requirements for these degrees.

Area of Study	Coherency	Code
Resource and Environmental Management	Resource and Environmental Management	REM03
		REM04

Academic advice

100 level

Required: GEOS118

Students in the program normally also take GEOS111; GEOS117; GEOS112

Students should select other 100-level units according to their specific fields of interest.

200 level

Required: GEOS267

Prerequisites for 300-level study in the resource and environmental management program mean that students will select appropriate 200-level options from the following:

GEOS214 or GEOS216; GEOS266; BIOL227; GEOS215; GEOS219; GEOS264; GEOS281

Students choose other 200-level units from a wide range of disciplines in accordance with their interests. In particular, GEOS237 is recommended for those students interested in natural and human-induced hazards, which has direct synergies with resource and environmental management issues.

300 level

To qualify for a degree with a coherency in resource and environmental management, students must meet three requirements at 300 level. First, they must pass GEOS321 Resource Management and GEOS328 Environmental Management. Secondly, students must pass at least one of the following:

BIOL347; ECON359; GEOS301; GEOS322; GEOS324; GEOS325; GEOS326; GEOS334; GEOS347; GEOS378; GEOS382; GEOS398; GEOS399; LAW510

Thirdly, students must complete a total of at least 18 credit points at 300 level, including those obtained in meeting the first two requirements. Normally this involves passing a further two or three units. These may be selected from the list of units above, or from any other 300-level units in the Schedule of Undergraduate Units for which the student has the prerequisites.

Students aiming to complete the resource and environmental management program are strongly advised to ensure that they also complete a coherent study in either a physical geography or human geography core degree.

Bachelor of Arts, Bachelor of Science Geoecology program

The geoecology program deals with Earth Surface science. Studies are multidisciplinary, with an emphasis on in-field teaching, where learning outcomes are enhanced.

Majors and coherent studies

The following programs satisfy the requirements for this degree:

Area of Study	Coherency	Code
Geoecology	Geoecology	GEC01
	Geoecology	GEC02

Academic advice

Third Year

Required: 12 credit points from GEOS328 or GEOS317, GEOS334, GEOS382, GEOS398, GEOS399

Bachelor of Arts, Bachelor of Science Geographic Information Science programs

Study in Geographic Information Systems (GIS) within a Bachelor of Science degree is appropriate for students who wish to combine studies in the field of GIS with studies in environmental science, resource and environmental management, geography, geology, biology or computing science. Study within a Bachelor of Arts degree is appropriate for students who wish to combine studies in GIS with studies in business operations, planning and development, health and population studies and marketing.

The program structure for a coherent study in GIS is designed to be flexible. In each year there are some essential units and some recommended units, and students are able to choose other units according to their individual interests. Students undertaking a coherent study in GIS are highly recommended to include other geographical/environmental units in their program each semester, to ensure a good understanding of how GIS can be applied. In general, students are also recommended to complete units in computer science in the first and, where possible, second years, as these complementary skills are well regarded in the work place.

Majors and coherent studies

The following programs satisfy the requirements for these degrees.

Area of Study	Coherency	Code
Geographic Information Science	Geographic Information Systems	GIS02
		GIS04

Academic advice

First Year

Required: Any 100-level COMP, ISYS or STAT unit.

Recommended: Geography and other environmentally based sciences (choose at least two):

GEOS111; GEOS112; GEOS118; GEOS115; GEOS117; BIOL114

Supporting studies in computer science and statistics (choose at least one):

COMP115; ISYS114; ISYS123; COMP125; STAT170; STAT171

Second Year

Required: GEOS264; GEOS378

Recommended: Geography and other environmentally based sciences (choose at least two):

GEOS214; GEOS219; GEOS237; GEOS251; GEOS262; GEOS267; GEOS266; GEOS268; GEOS281; BIOL227; BIOL235

Note that units at second year need to be chosen carefully to provide the 200-level prerequisites for 300-level units.

Supporting studies in computer science: ISYS224; COMP229; COMP249

Third Year

Required: GEOS382; GEOS378

Plus at least two of the GEOS or BIOL units listed below.

Recommended: Geography and other environmentally based sciences (choose at least two):

GEOS307; GEOS321; GEOS325; GEOS328; GEOS322; GEOS326; GEOS334; GEOS347; GEOS398; GEOS399; GEOS420; BIOL347

These notes are intended to guide selection and students should seek academic advice.

Bachelor of Health

Why do the poor die young? What links exist between immigration and health? Why is infectious disease making a comeback? What challenges does increasing globalisation pose for public health in the developed and developing world? Why is ill-health and disability increasing among the aged? What are the key legal and ethical issues confronting the health sector in the 21st century? How do the media handle health issues? What is health promotion and what role does it play in improving population health? What links exist between the biophysical environment and health, and between climate change and disease?

These are the kinds of questions that concern scholars of human health and are addressed by the Bachelor of Health degree at Macquarie University. Students may elect to enrol in one of two strands of the degree program: community health or international health. While differing somewhat in focus, both strands are designed to provide students with an interdisciplinary and multi-disciplinary view of health and an integrated awareness of the determinants, distribution and consequences of health and ill-health in contemporary societies.

The community health program of the Bachelor of Health provides students with a critical appreciation of the variety of preventive and health care delivery strategies in modern societies, as well as an introduction to measurement, causality and association in health. In the three years of study, students must complete 13 core units drawn from a wide variety of disciplines. At the same time, students can elect to study additional units from a variety of health-related units offered around the University.

The international health program explores the social, political, cultural, economic and environmental determinants and outcomes of health, particularly in the developing world. In the three years of study, students must complete 12 core units drawn from a variety of disciplines. At the same time, students can elect to study additional units from law, anthropology, politics, human geography, demography, psychology, sociology and health studies.

Students with a proven record of academic achievement in either the community or international health strands may undertake a fourth year of study to obtain a Bachelor of Health (Honours) degree.

Majors and coherent studies

The Bachelor of Health requires three years of full-time study (longer for part-time students). To qualify for the degree of Bachelor of Health a candidate must obtain an aggregate of at least 68 credit points. The following programs satisfy the requirements for this degree.

Area of Study	Study Pattern	Code
Health	Community Health	HLTH01
	International Health	HLTH02

Interdisciplinary study

An interdisciplinary program in psychology and health is available, leading to the award of the Bachelor of Arts – Psychology with Bachelor of Health, or Bachelor of Science – Psychology with Bachelor of Health. The program will equip students with the skills and knowledge needed in a variety of health-related occupations such as in health promotion, policy, planning and research.

For further information see the entry for the Department of Psychology under the Faculty of Human Sciences in this Part of this Handbook.

Bachelor of Social Science

The Bachelor of Social Science degree offers a broad education in social science subjects, spanning such diverse discipline areas as human geography, sociology, anthropology, media and mass communications and indigenous studies, as well as related subject areas in biology, law and history. It emphasises both theoretical and applied aspects in each of these areas.

For more details see the entry for interdisciplinary studies within the Faculty of Arts in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree:

Area of Study	Coherency	Code
Human Geography	Human Geography	HGE15
	Urban and Regional Management	HGE19

Bachelor of Science with Bachelor of Arts in Natural and Cultural Heritage and Museums

This double degree offers a unique, innovative, interdisciplinary program of study that bridges the Sciences and Humanities, as well as providing undergraduate qualifications in Museum studies. This degree provides graduates with a broad education relevant to a wide range of endeavours beyond the university and will open doors into interesting and rewarding occupations.

The degree is a four year program of study offered in specialty areas for which Macquarie University has a high reputation: ancient history, Australian history, archaeology, palaeontology, biology, geology, geography, and indigenous studies. Honours level study is available for students with a strong undergraduate record.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Museum Studies	Natural and Cultural Heritage and Museums	MST01

Academic advice

Students must complete a coherent study in Palaeontology (Science) plus two of the listed coherencies, one of which must be an Arts coherency:

Ancient History (Arts), Anthropology (Arts), Australian History (Arts), Biology (Science), Critical and Cultural Studies (Arts), Geology (Science), Human Geography (Arts), Indigenous Studies (Arts), Modern History (Arts).

Recommended units for the coherencies are as follows:

Natural and Cultural Heritage and Museums (Science) [compulsory]

100 level

GEOS112 plus GEOS115; or GEOS116

200 level

GEOS226; BIOL261; GEOS272

Coherency (MST01)

BIOL378 and at least 3 units from BIOL379, BIOL380, BIOL400, MSM400.

Choose one Science and one Arts coherency OR two Arts coherencies from the list below.

Ancient History (Arts)

100 level

AHST100; AHST101

200 level

AHST210 and 4 credit points from any 200-level units in AHST

300 level (Coherency ANC02)

12 credit points in 300-level AHST units

Anthropology (Arts)

100 level

ANTH150

200 level

ANTH277 and 6 credit points from ANTH276; ANTH275; ANTH272; ANTH274

300 level (Coherency ANT01)

At least 12 credit points from ANTH360–ANTH387

Australian History (Arts)

100 level

AUST100; HIST109

200 level

HIST217; HIST245; HIST271

300 level (Coherency MDH02)

AUST300; HIST340; HIST371

Biology (Science)

100 level

BIOL114; BIOL115; CBMS101 or CBMS103

Plus 3 credit points from STAT170; STAT171

200 level

BIOL208; BIOL210

300 level (Coherency BLG07)

BIOL316 plus 9 credit points from BIOL346; BIOL347; BIOL360; BIOL368; BIOL369; BIOL372; BIOL373; BIOL374; CBMS317.

Critical and Cultural Studies (Arts)

100 level

CUL100; CUL101

200 level

Two units from CUL200; CUL201; CUL204; CUL207

300 level (Coherency CUL10)

At least 12 credit points from CUL300; CUL301; CUL305; CUL307; CUL308; CUL312

Geology (Science)

100 level

GEOS112; GEOS115

200 level

GEOS226; GEOS230; GEOS260

300 level (Coherency GGE10)

GEOS307 and 9 credit points from BIOL380; GEOS308; GEOS309; GEOS314; GEOS373; GEOS377; GEOS386; GEOS437

Human Geography (Arts)

100 level

GEOS111; GEOS118 and 3 credit points from STAT170; STAT171

200 level

GEOS267 and 3 credit points from GEOS215; GEOS219; GEOS262; GEOS264; GEOS281

300 level (Coherency HGE06)

GEOS321 plus 8 credit points from GEOS311; GEOS322; GEOS324; GEOS326; GEOS347; GEOS378

Indigenous Studies (Arts)

100 level

ABST100

200 level

ABST200; ABST210

300 level (Coherency ABR05)

12 credit points from ABST300; ABST310; GEOS321

Modern History (Arts)

100 level

HIST109

200 level

HIST217; HIST245

300 level (Coherency MDH01)

HIST340; HIST371; and at least 4 credit points from 300-level HIST units.

Honours program

Qualified students may undertake a fifth year to obtain the degree of Bachelor of Science with Bachelor of Arts (Honours). Students in the Honours program will undertake a research project in one of a number of Departments throughout the University. In conjunction with a museum (on campus or externally) students will create an exhibit or display (static or digital) on the topic researched, or instigate another significant museum-based program commensurate with their research focus. In addition, up to 8 credit points of relevant units may be completed.

Students who have already completed an appropriate Bachelor of Arts or Bachelor of Science undergraduate program of studies either at Macquarie or another university will be considered for enrolment in the Honours year.

For further information contact Dr Andrew Simpson on +61 2 9850 8183 or at andrew.simpson@mq.edu.au.

Honours program

Honours students in the Environmental Science discipline are required to take a 16 credit point supervised research project and 8 credit points of coursework. Of the coursework component, 4 credit points are gained via a research methods unit. In special cases, students may write an 8 credit point dissertation and complete 16 credit points of coursework. As project design is crucial to each Honours program, consultation with potential supervisors is encouraged early in undergraduate degree programs, especially if the prospective thesis topic entails a significant fieldwork component.

The Human Geography discipline offers honours programs leading to several degrees depending on your background and first degree: BA (Hons), BSc (Hons), BSocSc (Hons), BHealth, BPlan and BEnvMgt (Hons). The honours program is a fourth undergraduate year which gives you a valuable additional research qualification that typically helps your employment prospects and opens the way for postgraduate research in the future. Entry into the program is based on your GPA and a member of academic staff being available to supervise your area of interest. Before proceeding we strongly recommend you discuss the matter with the Human Geography Honours Convenor and potential supervisors. If your interest spans more than one department, you can be co-supervised by staff from other departments.

Bachelor of Science or Bachelor of Arts with Diploma of Education

Students who are taking a combined Bachelor of Science with Diploma of Education program in any science strand are advised to include in their program: BIOL261 Palaeontology, GEOS112 The Planet Earth, GEOS115 Earth Dynamics, Materials and the Environment, GEOS117 Biophysical Environments, GEOS216 The Atmospheric Environment, GEOS226 Introduction to Field Geology, GEOS260 Marine Depositional

Environments and GEOS266 Earth Surface Processes. These will equip students to handle the earth and environmental science component as set out in the junior syllabus.

Students who are taking the combined Bachelor of Arts with Diploma of Education program or the combined Bachelor of Science with Diploma of Education program and wish to satisfy the NSW Department of School Education requirements for promotion should carefully consult the *Teacher Education Program Student Guide* available from the Macquarie University Department of Education for units to be taken in social sciences other than geography.

Units specified as a recommended sequence for geography teaching are: GEOS111; GEOS112; GEOS118; GEOS117; at least one 200-level physical geography unit from GEOS216 and GEOS266; and at least one 200-level human geography unit from GEOS215; GEOS219; GEOS267 and GEOS281. It is recommended that students majoring in human geography include at least two units in the environmental sciences discipline at 200 level and similarly students who intend to major in the environmental sciences discipline should include at least two units in human geography at 200 level. It is also recommended students include GEOS118 in their program. Descriptions of these Undergraduate Units are provided in the section entitled Descriptions of Undergraduate Units in Part 3 of this Handbook.

Graduate Diploma in Atmospheric Science

Candidates for the Graduate Diploma in Atmospheric Science must have a Bachelor degree or equivalent with a major study in physical geography, climatology, meteorology, environmental science, earth sciences, physics, biology, geophysics, chemistry or mathematics. The program for the Graduate Diploma in Atmospheric Science embraces a wide range of topics in climatology and meteorology, including climate change, air pollution, boundary layer meteorology, biometeorology, inclement weather and weather forecasting.

Applications must be lodged by the end of September, however late applications will be accepted up until mid-December with the payment of a scaled late fee. Application forms and advice regarding fees can be obtained from the Student Enquiry Service, Lincoln Building, phone +61 2 9850 6410.

Majors and coherent studies

The following program satisfies the requirements for this award.

Area of Study	Study Pattern	Code
Atmospheric Science	Atmospheric Science	ATMS05

Graduate Diploma in Geographic Information Science

The Graduate Diploma in Geographic Information Science is a full-time or part-time program for local and overseas students with a degree who wish to study Geographic Information Sciences (GIS). The program can be completed in 18 months if commenced in first semester or two years if commenced in second semester.

Previous undergraduate units cannot count for credit and each student's program of study must be approved by the Director of the GIS program, Associate Professor M Poulsen. Applications for first semester close at the beginning of September and for second semester at the beginning of June. The Diploma attracts a tuition fee which is set each year. Application forms and advice regarding fees can be obtained from the Student Enquiry Service, Lincoln Building, phone +61 2 9850 6410.

Majors and coherent studies

The following program satisfies the requirements for this award.

Area of Study	Study Pattern	Code
Geographic Information Science	Geographic Information Science	GISC05

Interdisciplinary studies

The Department of Environment and Geography contributes to the teaching of the following degrees:

Bachelor of Environmental Science
Bachelor of Environmental Management
Bachelor of Marine Science
Bachelor of Planning
Bachelor of Science with Bachelor of Arts

For more detailed information please refer to the entry for interdisciplinary studies within the Faculty of Science in this Part of this Handbook.

Department of Environment and Geography enquiries

Room: E7A level 1
Phone: +61 2 9850 6000
Fax: +61 2 9850 6565
Email: enviroandgeog@mq.edu.au
Websites: www.es.mq.edu.au/humgeog
www.es.mq.edu.au/physgeog
www.gse.mq.edu.au

Department of Earth and Planetary Sciences

Earth and Planetary Sciences include studies of the earth, its evolution and relation to other planets. The Department has a strong commitment to maintaining an emphasis on fieldwork and providing students with access to the most advanced laboratory facilities and field equipment. More extensive details and advice on unit selection is available on the departmental web site at www.es.mq.edu.au/geology/pathways.htm

Graduates have a vital role in the exploration for, and assessment and development of, Australia's mineral and fossil fuel resources and are also employed in the mining industry, major construction companies, financial institutions, stockbroking firms, industry, government departments, museums and scientific organisations such as the CSIRO.

Geophysics is the study of the earth using the methods of physics. Solid earth geophysics involves the study of the structure of the earth's interior, and the study of physical processes within the earth which result in phenomena such as earthquakes and geomagnetic field reversals. Applied geophysics involves the application of geophysical techniques (including gravity, magnetic, seismic, electrical and radiometrics) in the search for economic deposits of minerals, coal, oil and gas and in the application of those techniques to environmental problems. Geophysics now finds increasing application in resolving problems in engineering, groundwater and environmental applications.

Distance education

At present all 200-level units required as prerequisites for 300-level and 400-level units are available externally at least every second year. Most involve both on campus sessions and fieldwork. Candidates should examine the coherent studies cited to work out the best unit pattern to adopt. The 300- and 400-level units required to complete a coherency in Geology (GEOS307, GEOS308, GEOS377, GEOS373, GEOS437) are offered externally on either an annual or biannual basis but students must be able to attend the fieldwork components. The introductory units of study at 100 level give first an integrated view of the earth (GEOS112) and then a more specific view of its dynamics and the materials it is made of (GEOS115). Fieldwork is an integral part of this introduction, culminating in a field camp (GEOS226) at the end of the first year. Students are advised to also take 100-level units in BIOL, CBMS, COMP or ISYS, and STAT.

Academic advice

There are no formal Higher School Certificate subject requirements for students undertaking the Bachelor of Arts or Bachelor of Science degrees offered by the Department.

100 level

It is important that students take GEOS115 and it is advised that students also take GEOS112 and GEOS116. A selection of other 100-level BIOL, CBMS, GEOS, MATH, PHYS and STAT units is encouraged. If students wish to minimise the number of other science units, then their selection should reflect their field of particular interest. For geophysics, MATH and COMP or ISYS units are advised. For Geology, GEOS117 and CBMS units are suggested. For students who have not taken any of these other science subjects at HSC level, there are bridging units in chemistry, mathematics and physics. Biology allows entry to most 100-level units without HSC Biology. Not all these 100-level units need to be taken in the first year.

200 level

The first 200-level unit for most students is GEOS226, a vacation fieldwork unit that runs in December of each year. Entry to this unit is via GEOS115, GEOS116 or GEOS117. GEOS230 and GEOS260 lead into the main 300-level units in geology. GEOS268 leads into 300-level geophysics and is also taken by most geology students. Because of the alternation of GEOS315 and GEOS316, it may be necessary for geophysics students to take one of these units in the second semester of their second year. GEOS373 is offered only in odd years with a field trip to New Zealand in February.

GEOS251 and GEOS272 are general-interest units designed for students whose interests may lie outside the main Earth and Planetary Science programs.

Bachelor of Science

Majors and coherent studies

The Bachelor Degree Rules require, among other things, at least 18 credit points in science designated units at 300 level or above, including an approved combination such as the ones set out below. The coherent combinations listed below are approved for either the Bachelor of Arts or the Bachelor of Science degree.

Area of Study	Coherency	Code
Geology, Geophysics & Exploration Geoscience	Geology	GGE05
		GGE10
	Geology and Geophysics	GGE06
	Geophysics	GGE12
	Environmental Geology	GGE14

Honours program

Honours students will be required to undertake both units of study and supervised research in a field appropriate to staff expertise in the appropriate field of study. Interdisciplinary research is also encouraged. The research component comprises two-thirds of the honours year and the units of study are chosen in consultation with the supervisor and departmental honours committee. Students are strongly encouraged to undertake an

Honours program as this greatly enhances their employment prospects. Honours students in geology and geophysics have the opportunity to participate in active research in the department as well as participate in the extensive research program of ARC National Research Centre GEMOC.

Bachelor of Science or Bachelor of Arts with Diploma of Education

Students undertaking the combined BA DipEd or the BSc DipEd who intend to become secondary school teachers and wish to specialise in the teaching of geology should enrol in the Department of Earth and Planetary Sciences. The student is referred to the appropriate *Teacher Education Program Student Guide* available from the Macquarie University Department of Education.

Interdisciplinary Studies

The Department of Earth and Planetary Sciences contributes to the teaching of the following degrees:

Bachelor of Environmental Science
Bachelor of Marine Science
Bachelor of Science with Bachelor of Arts

For more detailed information please refer to the entry for interdisciplinary studies within the Faculty of Science in this Part of this Handbook.

Department of Earth and Planetary Sciences enquiries

Room: E7A 507
Phone: +61 2 9850 6314
Fax: +61 2 9850 6904
Email: kristina.willis@mq.edu.au or mingshan.sim@mq.edu.au
Website: www.es.mq.edu.au/geology

Department of Mathematics

The aim of the undergraduate teaching program in the Department of Mathematics is twofold: to provide training to students who aspire to a career in mathematics as well as to provide service teaching to students who major in other areas. In particular, the Department aims to train students in problem solving and other generic skills as well as mathematical techniques. Students who major in mathematics may pursue further studies by enrolling in honours and postgraduate programs, and can expect to find employment in the academic, scientific, technical and financial sectors.

Bachelor of Science

Most students intending to major in mathematics enrol for a Bachelor of Science degree, supplementing their mathematics units of study with units chosen from other science disciplines, such as physics, computing, electronics, statistics, chemistry, biology or the earth sciences.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Mathematics	Mathematics (i)	MAT03
	Mathematics (ii)	MAT04
	Mathematics and Statistics	MAT06

Entry requirements

The Faculty offers greater flexibility to students admitted to the Bachelor of Science in Advanced Mathematics. Special lectures, accelerated progress, and extra units of study in mathematics are available. Students are selected on the basis of their UAI (98.50 required for 2008 entry).

Students in the Bachelor of Commerce – Actuarial Studies with Bachelor of Science, Mathematics program, are required to have high passes in HSC mathematics and a high UAI (95.00 required for 2008 entry).

For further information regarding mathematics prerequisites see the section ‘Academic advice for 100-level Mathematics’ above.

Academic advice

Note that, while the following recommended program applies particularly to full-time day students, part-time students may undertake a very similar program on an evening and late-afternoon basis, spreading the mathematics component over five years or more.

Year 1

1st half-year: MATH135 or MATH132, COMP115 or COMP155;

2nd half-year: MATH136 or MATH133, COMP125 or COMP165;

and about 12 additional credit points, normally including PHYS140, PHYS143, STAT170 or STAT171.

Year 2

1st half-year: MATH235, MATH237;

2nd half-year: MATH232, MATH236;

and about 12 additional credit points, including 9 credit points in the range STAT270-STAT279 for the coherent study MAT06.

Year 3

A selection of units of study in mathematics, statistics, physics and computing at 300 level, chosen in consultation with an academic adviser.

Note the requirements for entry into honours in mathematics or in computing.

Bachelor of Science Advanced Mathematics program

The program of studies with UAC code 300507, called Bachelor of Science in Advanced Mathematics, leads to the award of a generic Bachelor of Science. However, this program offers opportunities in mathematics beyond those available in the standard Bachelor degree. It is designed for students wishing to major in mathematics (probably with a view to doing honours) or in some related discipline.

Special arrangements can be made for students wishing to participate in the advanced stream who want a degree other than the Bachelor of Science (in Advanced Mathematics). Another possibility is the double degree (four years minimum) of Bachelor of Commerce – Actuarial Studies with Bachelor of Science, Mathematics program; see the corresponding entry below or under Department of Actuarial Studies in the Faculty of Business and Economics in this Part of this Handbook.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Mathematics	Mathematics-Advanced	MATH03

Entry requirements

Students normally enter through the UAC on the basis of their UAI (over 98.50 required for 2008 entry) but there are some opportunities for students with very good grades in mathematics to transfer into the program at a later stage. It is desirable to have completed Mathematics Extension 2

Bachelor of Arts

Students intending to major in mathematics and who enrol for a Bachelor of Arts degree may supplement their mathematics units of study with units chosen from any discipline within the University including statistics, physics and computing.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Mathematics	Mathematics (i)	MAT01
	Mathematics (ii)	MAT02
	Mathematics and Statistics	MAT05

Entry requirements

For information regarding Mathematics prerequisites see the section ‘Academic advice for 100-level Mathematics’ under the Faculty of Science in this Part of this Handbook.

Academic advice

Note that, while the following recommended program applies particularly to full-time day students, part-time students may undertake a very similar program on an evening and late-afternoon basis, spreading the mathematics component over five years or more.

Year 1

1st half-year: MATH135 or MATH132, COMP115 or COMP155;

2nd half-year: MATH136 or MATH133, COMP125 or COMP165;

and about 12 additional credit points, normally including STAT170 or STAT171, and 100-level offerings in one or two further disciplines.

Years 2 and 3

As for the Bachelor of Science above.

Bachelor of Commerce – Actuarial Studies with Bachelor of Science Mathematics program

This double degree pairs the Bachelor of Commerce – Actuarial Studies with the Bachelor of Science, Mathematics program. The recommended program of study permits completion of the double-degree program in a much shorter time than if each degree were taken sequentially. A UAI of 95.00 was required for 2008 entry.

See the entry for the Department of Actuarial Studies under the Faculty of Business and Economics in this Part of this Handbook for further details.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Actuarial Studies	Actuarial Studies & Mathematics	ACT12

Bachelor of Arts or Bachelor of Science with Diploma of Education (for student Mathematics teachers)

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Teacher Education	Teacher Education - Various	TED01
Teacher Education	Mathematics	TESC01

Entry requirements

For information regarding Mathematics prerequisites see the section 'Academic advice for 100-level Mathematics' under the Faculty of Science in this Part of this Handbook.

Academic advice

Students who are taking the combined Bachelor of Arts with the Diploma of Education or Bachelor of Science with Diploma of Education who wish to satisfy the NSW Department of School Education requirements for promotion should carefully consult the *Teacher Education Program Student Guide* available from the Macquarie University Department of Education.

Year 1

1st half-year: MATH135 or MATH132, EDUC105, COMP115 or COMP155, and up to 4 additional credit points.

2nd half-year: MATH136 or MATH133, EDUC106, COMP125 or COMP165, and up to 4 additional credit points.

The additional credit points may comprise a full 100-level offering from another discipline; however PHYS140 and STAT171 should be completed by the end of year 2.

Year 2

1st half-year: MATH235, MATH237, and up to 7 additional credit points.

2nd half-year: MATH232, MATH236, MATH239, and up to 4 additional credit points.

Students seeking employment with the NSW Department of Education and Training after graduation must also include TEP248 in their program.

Year 3

1st half-year: MATH3XX, STAT272, EDUC264, TEP282 and up to 3 additional credit points.

2nd half-year: MATH3XX, STAT271, EDUC258, TEP283 and up to 3 additional credit points.

(MATH3XX are units in the range MATH300-MATH399.)

It may be possible, or even necessary, to replace TEP282 and TEP283 by TEP295.

Year 4

1st half-year: MATH3XX; MATH3XX; TEP414 or TEP416; TEP429 and up to 3 additional credit points.

2nd half-year: MATH3XX; MATH3XX; TEP414 or TEP416; TEP430 and up to 3 additional credit points.

(For the Bachelor of Science with Diploma of Education the additional credit points must be chosen to meet the requirements for the number of approved science units successfully completed.)

Honours in Mathematics (BA/BSc)

The normal requirements for entry into honours in mathematics are currently at least four of the units MATH300, MATH334, MATH335, MATH336, MATH337, MATH338, and MATH339. Candidates must normally have obtained a GPA of at least 2.5 in 300-level units; a GPA of at least 2.5 in all units taken is also required. Prospective candidates should consult with the Head of Department before October for assignment to an honours supervisor and approval of a program. Joint programs in mathematics and computing or statistics are possible.

Honours candidates are normally required to take six half-year units of study. In special circumstances these may include approved units offered within related disciplines such as physics, geophysics, computing, statistics and mathematical logic. In addition students will write an essay or undertake a project on a set topic determined in consultation with supervisors, and present this material in a talk. The essay or project plus talk comprise 35 percent of the honours program.

Areas of research include analytic number theory, algebraic number theory, p-adic analysis, irregularities of distribution, theory of functions, functional analysis, harmonic analysis and representation theory, cryptology, group theory, category theory, wave phenomena, integral equations, non-linear dynamics, partial differential equations, mathematical physics, quantum mechanics and scattering theory.

Department of Mathematics enquiries

Room: E7A 418
Phone +61 2 9850 8947
Fax: +61 2 9850 8114
Email: enquiries@ics.mq.edu.au
Website: www.maths.mq.edu.au

Department of Physics and Engineering

The two disciplines of physics and engineering are closely related but are discussed in separate sections below.

Physics

Physics is fundamental to all the natural sciences and plays a central role in the development of new technologies. Theoretical and experimental research together explore basic questions about the intrinsic laws of the universe. The results of this research are applied to interdisciplinary fields and to practical use. Physics is a core discipline for all science and technology students, and challenges students to explore the underlying principles of all physical phenomena as well as to develop problem-solving skills, good laboratory techniques, and skills in numerical analysis, technical writing and oral communication.

Macquarie University Physics employs high-quality and innovative approaches to teaching with a focus on the generic skills which support the discipline. Teaching is underpinned by excellent research and strong links and collaborations with other organisations and industry, both nationally and internationally.

Distance education program

Many units in physics provide supporting material on the internet, but it is not possible to complete a degree by distance mode.

Bachelor of Science, Bachelor of Arts

The Bachelor of Science degree (with a coherent study in Physics) offers students a strong physics program, including the possibility of a major study associated with theoretical or mathematical physics, or with astronomy and astrophysics.

Majors and coherent studies

The following programs satisfy the requirements for these degrees.

Area of Study	Coherency	Code
Physics	Physics	PHY01
	Mathematical Physics	PHY02
	Physics	PHY03
	Mathematical Physics	PHY04

Entry requirements

A Physics program requires HSC Mathematics Band 4, or satisfactory completion of MATH130 Mathematics IE, before enrolling in the mainstream units PHYS140 and PHYS143. While HSC Physics or Chemistry is desirable, it is not essential for entry to a Physics program.

For information regarding Mathematics prerequisites see the section 'Academic advice for 100-level Mathematics' in the entry for the Faculty of Science in this Part of this Handbook.

Professional accreditation

The Australian Institute of Physics, the professional body representing physics in Australia, has accredited the Bachelor of Science degree (with a coherent study in Physics) as a Physics degree under a scheme of regular reviews.

Academic advice

Students who do not qualify for direct entry to MATH135 must enrol first in MATH130. In order to obtain the minimum mathematics prerequisite for 300-level physics (MATH235) they may then need to complete three mathematics units by evening study.

Year 1

These recommended programs require at least HSC Mathematics Band 4, but students with a strong mathematical background may substitute MATH132 and/or MATH133 for MATH135 and/or MATH136.

1st half-year: MATH130 or MATH135, PHYS140

2nd half-year: MATH135 or MATH136, PHYS143, ELEC166

1st or 2nd half-year: 6 to 9 additional credit points, normally selected from CBMS101, CBMS103, ISYS123 or COMP115 or COMP155, COMP125 or COMP165, PHYS178

Year 2

1st half-year: MATH136 if not yet completed or else MATH235, PHYS201, and 6 or 7 additional credit points, possibly including PHYS220 and/or PHYS242 and/or PHYS270

2nd half-year: PHYS202, ELEC280 or PHYS278, and 6 or 7 additional credit points; MATH235 is essential if not yet completed, or else MATH236 is strongly recommended

Note also OPTO221, OPTO222

Some students may include PHYS246 in the second half-year.

Year 3

1st half-year: PHYS301, PHYS303 and 6 or 7 additional credit points; MATH335 is recommended. (Consider OPTO321, PHYS377, ELEC376 as possible options.)

2nd half-year: PHYS304, PHYS306 or PHYS378, and 6 or 7 additional credit points, which should include MATH236 (strongly recommended) or ELEC280 (if not already completed)

(Note that the suggested options meet the requirements for entry to honours in physics.)

Mathematical Physics coherent study

Year 1

This recommended program requires HSC Mathematics Extension 1 (or a good pass in HSC Mathematics, or the equivalent) and an appropriate science background; see earlier notes under 'Entry requirements' and immediately above.

1st half-year: MATH132 or MATH135, PHYS140, ISYS123 or COMP115 or COMP155, and 3 or 4 additional credit points, normally chosen from CBMS101, ELEC141, PHIL137, STAT171

2nd half-year: MATH133 or MATH136, PHYS143, and 6 or 7 additional credit points, normally chosen from COMP125 or COMP165, ELEC166, STAT270

Year 2

1st half-year: MATH235, MATH237, PHYS201, PHYS220

2nd half-year: MATH236, PHYS202, and 6 or 7 additional credit points. Some students may include PHYS246 in the second half-year.

Year 3

1st half-year: MATH335, PHYS301 and 6 or 7 additional credit points, normally MATH337, PHYS303

2nd half-year: MATH336, MATH339, PHYS304, PHYS378

Bachelor of Science Astronomy and Astrophysics program

The program of studies with UAC code 300529, called Bachelor of Science in Astronomy and Astrophysics, leads to the award of a generic Bachelor of Science. However, students admitted to this program may enrol in the unit PHYS270 Astronomy in their first year of study.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Astronomy and Astrophysics	Astronomy and Astrophysics	ASTR01

Entry requirements

This program requires HSC Mathematics Band 4, or satisfactory completion of MATH130 Mathematics IE, before enrolling in the mainstream units PHYS140 and PHYS143.

For information regarding Mathematics prerequisites see the section 'Academic advice for 100-level Mathematics' in the entry for the Faculty of Science in this Part of this Handbook.

Professional accreditation

The Bachelor of Science degree program in Astronomy and Astrophysics has been accredited by the Australian Institute of Physics as a Physics degree. There is no separate Astronomy accreditation available.

Academic advice

This program requires direct admission to MATH135 Mathematics IA and an appropriate science background. It can be modified to allow for students with a weaker mathematics background, but will require four years of study.

Students should normally choose their elective units from the lists of optional required units.

Bachelor of Arts/Bachelor of Science with Diploma of Education (for student Science teachers majoring in Physics)

Majors and coherent studies

The following programs satisfy the requirements for these degrees.

Area of Study	Coherency/Study Pattern	Code
Teacher Education	Teacher Education - Various	TED01
Teacher Education	Physics	TESC04

Entry requirements

A Physics program requires HSC Mathematics Band 4, or satisfactory completion of MATH130 Mathematics IE, before enrolling in the mainstream units PHYS140 and PHYS143. While HSC Physics or Chemistry is desirable, it is not essential for entry to a Physics program.

For information regarding Mathematics prerequisites see the section 'Academic advice for 100-level Mathematics' in the entry for the Faculty of Science in this Part of this Handbook.

Academic advice

The combination of units leading to the degree of BA DipEd or BSc DipEd in the Faculty has to satisfy the requirements of the NSW Department of Education and Training, the Teacher Education Program (TEP), the BA or BSc rules and the Faculty. The following recommended program is thought to satisfy these requirements, but students should check the *Teacher Education Program Student Guide* available from the Macquarie University Department of Education for any recent changes in these requirements.

Students enrolled in the special course for Science/Physics Teachers (study pattern TESC04) could use this recommended program as a guide, but should also ensure that they meet the minimum requirements as specified by the study pattern.

Year 1

1st half-year: PHYS140, MATH135 or MATH132, CBMS101, BIOL114

2nd half-year: PHYS143, MATH136 or MATH133, CBMS103, BIOL115

Year 2

1st half-year: PHYS201, PHYS270, MATH235, EDUC105

2nd half-year: PHYS202, PHYS278, MATH236, EDUC106

Year 3

1st half-year: CBMS207, PHYS301, EDUC261, TEP282

2nd half-year: CBMS208, PHYS304 or CBMS329 or GEOS309 or MATH336, EDUC262, TEP283

Students seeking employment with the NSW Department of Education and Training after graduation must also include TEP248 in their program; it is required for the Physics study pattern TESC04. It may be possible, or even necessary, to replace TEP282 and TEP283 by TEP295 and, perhaps, one of ISYS123, COMP115 or COMP155, ELEC141 or ELEC166, GEOS112, PHYS178.

Year 4

1st half-year: PHYS303; PHYS377; TEP414 or TEP416; TEP433

2nd half-year: PHYS306; PHYS378; TEP414 or TEP416; TEP434

It would be desirable to also include one of ISYS123, COMP115 or COMP155, ELEC141 or ELEC166, GEOS112, or TEP248 (see note above)

Bachelor of Optical Technology

Optical technology is the basis for a range of new products such as DVDs, digital cameras and flat-panel displays, laser scanners, biomedical instrumentation and communication systems. Optics is at the heart of many emerging technologies being developed for medicine, environmental monitoring, advanced computers and manufacturing.

The Bachelor of Optical Technology program combines studies of physics, optics, materials science and electronics in a professionally-oriented degree, and includes technologies such as lasers, nanophotonics, biophotonics, optical fibres and communications.

In this degree, you will develop industry-relevant skills including technical writing and communication skills, technology management and practical skills using modern instrumentation. A highlight of the degree program is that our students are placed in local high-technology companies in an industry-based project.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Optical Technology	Optical Technology	OPTL02

Entry requirements

Bachelor of Optical Technology students are selected on the basis of their UAI or equivalent. This program requires HSC Mathematics Band 4, or satisfactory completion of MATH130 Mathematics IE, before enrolling in the mainstream units MATH135, PHYS140 and/or PHYS143. Without HSC Mathematics Band 4, it is not possible to graduate in three years.

Academic advice

Students whose mathematical background is inadequate for direct entry to MATH135 or PHYS140 will need to modify this program, and should seek advice from the Director of the program.

Professional accreditation

It is anticipated that the Bachelor of Optical Technology degree will be professionally accredited by the Australian Institute of Physics.

Honours program

Students completing a Bachelor of Optical Technology other relevant degree programs are encouraged to enrol in the Bachelor of Optical Technology (Honours). Normal entry requirements are a GPA of at least 2.5 in 300-level units and a GPA of at least 2.5 over all units of undergraduate study. Students who do not meet these formal requirements but are strongly committed to undertaking the honours program may be admitted on the recommendation of the Executive Dean of Faculty.

The program comprises 12 credit points of coursework and a research project, each weighted equally in the final assessment. The coursework normally includes 400-level units in optical technology and physics, details of which may be found on the Physics website (9 credit points in total); one further unit (3 credit points) may be chosen from 400-level electronics or information and communication systems or 300-level physics, electronics, mathematics or computing, making up a total of at least 9 credit points in 400-level units.

The research projects will be chosen from relevant topics available within the Faculty (and in exceptional circumstances from topics available outside the Faculty or University). Projects will be assessed by way of a thesis. Details of research topics and coursework content will be made available before the end of the year preceding enrolment.

Honours in Physics (BA/BSc)

The normal minimum entry requirements are a coherent study in physics, preferably including PHYS304, and at least one mathematics unit at 300 level. Candidates must normally have obtained a GPA of at least 2.5 in 300-level units; a GPA of at least 2.5 in all units taken is also required. The recommended physics programs given below are the preferred routes to honours in physics. Candidates entering from the Bachelor of Science in Astronomy and Astrophysics program will be able to

enter without a 300-level mathematics unit if they have completed two of COMP226, ELEC280, PHYS306 instead.

Candidates for the honours degree in physics devote about half their time to a research project supervised by a member of staff of the Department and half to coursework at an advanced level. Honours students are required to submit a thesis embodying the results of their research and to present a seminar on the project. The coursework normally includes units making up 12 credit points, with at least 9 credit points at 400 level; details of relevant units are to be found on the Physics website. For candidates entering honours from the Bachelor of Science in Astronomy and Astrophysics program the coursework will normally include 400-level physics and astrophysics units, and one other 300-level or 400-level unit, giving a total of about 12 credit points. One of these units must be MATH335 if it has not yet been completed. Other recommended units include MATH336, MATH339, PHYS306. Information concerning the enrolment procedure and the projects offered will be available in the second half of the preceding year.

Areas of research include astronomy, biophysics and biophotonics, experimental and theoretical solid-state physics, optical physics, laser physics and applications, molecular physics, quantum optics, quantum information and communication theory, and fabrication and characterisation of optical or electronic materials.

Engineering

The teaching programs in Engineering specialise in the areas of electronics, communication systems and related engineering areas. These areas of study contribute significantly to many fields of 21st-century technologies, such as business and personal communications, manufacturing, industrial production and systems for recreational pursuits.

Engineering education at Macquarie University is underpinned by a strong research background with particular emphasis in the areas of microelectronics, microwave devices, networks, photonics, wireless systems and electromagnetics.

The four-year Bachelor of Engineering is an accredited qualification which focuses on problem solving as a key engineering skill with particular emphasis on electronics and telecommunications leading to a flexible and rewarding career path. The Bachelor of Science programs offer a more general electronics education that can be combined with other areas of study.

More details in relation to available engineering programs can be found at www.engineering.mq.edu.au.

Bachelor of Science, Bachelor of Arts

Some students will prefer the greater flexibility of the Bachelor of Science or the Bachelor of Arts to the more specialised Bachelor of Engineering.

Majors and coherent studies

The following programs satisfy the requirements for these degrees.

Area of Study	Coherency	Code
Electronics	Electronics	ELE01
	Electronics	ELE02

Entry requirements

There are no HSC prerequisites for ELEC141 Digital Fundamentals or ELEC166 Introduction to Electronic Systems, which are the entry points for higher-level Electronic Engineering units. Please refer however to their descriptions and to the section 'Academic advice for 100-level Mathematics' in the entry for the Faculty of Science in this Part of this Handbook.

Academic advice

A wide range of Bachelor of Science (BSc) programs with some emphasis on electronics is possible, as is a Bachelor of Arts or BSc program with considerable electronics content. The remaining subjects could be chosen from many fields, but an emphasis on computing or on physics would be most common. Students with a particular interest in electronics should consider the Bachelor of Electronics (BE) program offered by the Faculty. Students who do not meet the requirements to enrol in the BE program may include most of the same units of study in a BSc program with a major study in electronics, for example as recommended below. Transfer to the second year of the BE is possible after appropriate performance in the first year of the BSc and other programs.

Complementing a major study in electronics, enough PHYS units to meet the requirements for a coherent study in physics, or COMP or ISYS units for computing, may be included as follows.

Year 1

1st half-year: ELEC141, MATH135 or MATH132, PHYS140, COMP115 or COMP155

2nd half-year: MATH136 or MATH133, PHYS143, COMP125 or COMP165, ELEC166

Year 2

1st half-year: MATH235, ELEC290, COMP225, PHYS201 or COMP247 or COMP229

2nd half-year: ELEC241, ELEC280 or COMP226, PHYS202 or ISYS224 or ISYS227, MATH232, MATH236 or MATH237

Note also OPTO221, ELEC240

Year 3

1st half-year: ELEC342, ELEC376, PHYS301 or COMP342, PHYS303 or OPTO321 or ELEC324 or ISYS326 or COMP342

2nd half-year: ELEC321, PHYS304 or ELEC345 or COMP329 or COMP347, PHYS306 or ELEC343 or COMP333 or COMP34.

Bachelor of Engineering

Students admitted to the Bachelor of Engineering program undertake a four-year program of full-time study. They may choose to specialise in one of seven areas: computer engineering, electronics engineering, instrumentation and control engineering, photonics engineering, software engineering, telecommunications engineering and wireless engineering. To be eligible for award of the degree, students are also required to complete 12 weeks of approved industry experience.

It is possible to transfer to the BE course without loss of credit after one year of study from many other degree courses within the Faculty of Science. Students also have the option of transferring from the BE program to another degree if they wish to complete a degree in three years. The conditions for transfer are set in Part 1 of this Handbook.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Study Pattern	Code
Engineering	Telecommunications Engineering	ENGG01
	Computer Engineering	ENGG02
	Electronics Engineering	ENGG03
	Instrumentation and Control Engineering	ENGG04
	Wireless Engineering	ENGG05
	Software Engineering	ENGG06
	Photonics Engineering	ENGG07

Entry requirements

It should be noted that, without a mathematics mark qualifying them for direct entry to MATH135 or PHYS140, it might be difficult for students to graduate in four years. Please refer to the section 'Academic advice for 100-level Mathematics' in the entry for the Faculty of Science in this Part of this Handbook.

Academic advice

Students whose mathematical background is inadequate for direct entry to MATH135 or PHYS140 will need to modify this program and should seek advice from the Director of the program.

When required units are to be selected from a list of allowed alternatives, students should ensure that they will be meeting prerequisite requirements for later planned options.

Honours program

Honours in the BE is awarded to students with outstanding performance over the four years of the degree program. General Rules for awarding the degree of Bachelor of Engineering with Honours are as follows:

- Eligibility for Honours in the Bachelor of Engineering (BE) is based on the calculation of a 'weighted standard numerical grade' (WSNG) for all qualifying units, ie units studied at Macquarie University which are recognised as required or optional units (but not electives) in an Engineering study pattern for which a standardised numerical grade (SNG) has been recorded.
- The calculation of the WSNG will not include units studied at other universities, including units taken whilst on an international exchange program.
- For each qualifying unit, the weight to be applied is given by the credit points for that unit multiplied by the level (1 to 4) of that unit, where, for example, the level is 3 for any 300-level unit and 4 for units at 400 level and above.
- The WSNG is then determined by the sum across all qualifying units of the SNG achieved by the student for the unit, multiplied by its weight, and divided by the sum of the weights, ie:
  WSNG = Sum (SNG * CP * level) / Sum (CP * level)
- A student will graduate with Honours Class I if they have obtained a WSNG of 75 or higher, and they have completed ELEC415 Engineering Thesis II with a grade of at least Cr.
- A student will graduate with Honours Class II (Division 1) if they have obtained a WSNG of 70 or higher and they have completed ELEC415 Engineering Thesis II with a grade of at least Cr.
- A student will graduate with Honours Class II (Division 2) if they have obtained a WSNG of 65 or higher and they have completed ELEC415 Engineering Thesis II with a grade of at least P.
- A student with exceptional performance, eg a WSNG of 85 or higher, may be recommended for the award of a University Medal. (Note: University Medals are awarded by the Academic Senate—see Bachelor Degree Rule 19.)

Bachelor of Engineering with Bachelor of Business Administration

This is a five-year double degree program that includes a coherent study for the Bachelor of Business Administration with a specialisation in Engineering.

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Study Pattern	Code
Engineering	Engineering and Business	EGG20

Bachelor of Engineering with Bachelor of Commerce

This is a five-year double degree program that combines the Bachelor of Engineering program with a Bachelor Commerce program that has a coherent study in Economics.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Study Pattern	Code
Engineering	Telecommunications and Economics	ENGG20
	Software and Economics	ENGG25

Bachelor of Engineering with Bachelor of Science

This is a five-year double degree program that combines the Bachelor of Engineering program with a Bachelor of Science program that has a coherent study in Computing.

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Study Pattern	Code
Engineering	Telecommunications and Computing	ENGG30
	Software and Computing	ENGG35

Honours in Electronics (BA/BSc)

Candidates should have a strong background in electronics, including at least a coherent study at 300 level in electronics. They should also have completed substantial studies at 300 level in computing, mathematics or physics or appropriate to their proposed project, which should be related to the research interests of the Department. Candidates must normally have obtained a GPA of at least 2.5 in 300-level units; a GPA of at least 2.5 in all units taken is also required.

Candidates for the honours degree in electronics devote about half their time to a research project supervised by a member of staff of the Faculty and half to coursework at an advanced level. Honours students are required to submit a thesis embodying the results of their research and to present a seminar on the project. The coursework is expected to include three 400-level electronics units and one other unit at 300 level or 400 level, giving a total of about 12 credit points. Interested students should consult Professor Anthony Parker well before the end of their undergraduate year to discuss a possible program.

Areas of research include computer and telecommunication networks; wireless systems; microwave circuits; photonics; microelectronics systems design including device characteristics, algorithms, architectures, circuit and device design and CAD software systems; signal processing; and electromagnetics including antenna analysis and design.

Department of Physics and Engineering enquiries

Room: E7A 217
Phone: +61 2 9850 8911
Fax: +61 2 9850 8115
Email: enquiries@eng.mq.edu.au
enquiries@physics.mq.edu.au
Web: www.engineering.mq.edu.au
www.physics.mq.edu.au

Department of Statistics

Statistics, in its broadest sense, is the art of summarising and extracting information from data, building models to simulate reality, and making decisions on the basis of these models. It is the discipline which formalises scientific method, and it embraces much of what is now known as information science. Statistical methods are essential to any quantitative field, and are used extensively in such diverse areas as medicine, management, investment planning, opinion research, political science, public policy, environmental studies, economic forecasting, transportation, telecommunications, linguistics and law.

In Australia, professional statisticians are employed in the various Federal and State government departments, in the Australian Bureau of Statistics, in the CSIRO, in hospitals, and in industry, particularly with pharmaceutical, insurance, chemical, mining, market research and computer software companies. With the rapid and continuing development of computer technology, and the associated information explosion, there is a sizeable and growing demand for graduates trained in statistics and computing.

The course of studies in statistics at Macquarie University is aimed at training professional statisticians who are equipped to meet the challenges provided by an increasingly information-oriented society. The basic program involves units in probability, statistical methods, computing, operations research and research design. This program is flexible and may be tailored to meet the needs of individual students. For example, there are several programs permitting inclusion of units in computer hardware and information systems. Alternatively, the statistics program may be combined with the study of a substantive discipline such as geography, linguistics or psychology; there is a strong demand for graduates with such dual qualifications.

Bachelor of Arts

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency	Code
Mathematics	Mathematics and Statistics	MAT05
Statistics	Statistics (Operations Research)	STA01
	Statistics 1	STA02
	Statistics 2	STA03
	Statistics (Information Science)	STA04

Bachelor of Commerce

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency/Study Pattern	Code
Statistics	Statistics (Operations Research)	STA05
	Electronic Commerce and Database Systems	STAT01

Bachelor of Economics

Majors and coherent studies

The following program satisfies the requirements for this degree.

Area of Study	Coherency	Code
Statistics	Statistics (Operations Research)	STA10

Bachelor of Science

Majors and coherent studies

The following programs satisfy the requirements for this degree.

Area of Study	Coherency/Study Pattern	Code
Bioinformatics	Information Processing and Data Mining	BNF04
Mathematics	Mathematics and Statistics	MAT06
Statistics	Statistics 1	STA07
	Statistics 2	STA08
	Statistics (Information Science)	STA09

Academic advice

For statistics programs in Bachelor of Arts, Bachelor of Science, Bachelor of Commerce and Bachelor of Economics students should include the following units:

100 level

STAT170 or STAT171; STAT175; and a COMP or ISYS unit

200 level

STAT270 or STAT271; STAT272 or STAT273; STAT278 and/or STAT279

The prerequisite structure of units of study in statistics means that students can take some 300-level units in their second year. In general, this is to be avoided. Instead, students are strongly advised to complete 200-level study in statistics and another subject area before proceeding to 300-level study in statistics.

Programs leading to a major in statistics are also available to students registered for the BMedScs degree.

Honours program

An honours program of study in statistics normally includes units in advanced probability, statistical theory and statistical computing, and advanced units from statistics or related areas such as mathematics, demography, econometrics and computing science; together with a report of an investigative nature (contributing at most 30% of the overall assessment).

Students entering the honours course will normally be expected to have completed the units MATH236, STAT371 and STAT378. It should be noted that an overall GPA of at least 2.5 is normally required in addition to the 300-level GPA requirement of not less than 3.0 in statistics.

Students contemplating an honours year in statistics should discuss their program with the Director of the honours program as early as possible.

Department of Statistics enquiries

Room: E4A 536
Phone: +61 2 9850 8555
Fax: +61 2 9850 7669
Email: statistics@efs.mq.edu.au
Website: www.stat.mq.edu.au