

# 7. BASIC DEGREE REQUIREMENTS

## 7.1 BACHELOR OF SCIENCE COURSE STRUCTURE

The Bachelor of Science degree normally involves 3 years of full-time or the equivalent in part-time study. The degree structure is designed to provide a broad education in science with the maximum amount of flexibility and student choice that is compatible with the completion of at least one substantial and coherent program of study (i.e. major study) in one of the Faculty's disciplines OR one of the special prescribed majors.

A Bachelor of Science (Course Code 742) from the Faculty of Science, can be obtained in one of **THREE** ways:

### 1. Science Majors

#### (a) Science major or majors

By taking at least one major offered by one of the three Schools located within the Faculty of Science:

- **Biological Sciences**
- **Chemistry**
- **Geology**
- **Geosciences**
- **Human Geography**
- **Physical Geography**

A major consists of at least 90 credit points of subjects from the Science Schedule (see Appendix A) including a major sequence (refer to Section 7.1 for further details). The balance of 54 credit points (to make a degree total of 144) are taken as elective subjects from the Science or General Schedules.

#### (b) Science major with co-major

Students may choose to use their elective credit points to combine their science major with a co-major from outside of the Faculty. In this category the requirement for the BSc of at least 90 credit points from the Science Schedule is waived. In most cases these majors combine with any Science major with no need for any further adjustment to credit points but there are some exceptions. Students wishing to take a co-major from outside the Faculty of Science should consult the Sub-Dean of that Faculty to seek approval and verify the requirements of that co-major. Students should then consult the Associate Dean (Teaching and Learning) of the Faculty of Science, Associate Professor Paul Carr, and verify their planned study program.

### 2. Prescribed Majors

By taking one of the following majors for which the subjects are prescribed and total the full 144 credit points required for the degree:

- **Biotechnology**
- **Ecology**
- **Environment**
- **Land and Heritage Management**
- **Medicinal Chemistry**
- **Nanotechnology**

These majors are outlined in Section 7.2 "Bachelor of Science Prescribed Majors." Entry to these majors requires the approval of the Dean or Associate Dean.

## Elective Subjects

Students not following a prescribed degree or major are required to choose elective subjects to make up the balance of credit points to 144 after the requirements of a major (or majors) has been fulfilled (at least 90 credit points from the Science Schedule (see Appendix A) or in approved co-major subjects).

The number of elective subjects that you require will vary with your choice of major but will total no more than 54 credit points. These elective subjects are selected from the Science or General Schedules as general education or interest subjects or complementary subjects to your major. The Faculty encourages students to choose elective subjects that will provide them with practice in the generic skills that are not as well covered by the subjects in their nominated major so that their degree will be as broad an education as possible.

Students requiring a suitable elective should consider the multidisciplinary science subject:

Students interested in pursuing research may wish to consider the following subjects as electives:

**SCIE292 Science Research Internship**

**SCIE392 Science Research Internship B**

For further information on these internship subjects refer to Section 7.6.

You should examine your degree schedule carefully to ensure you have sufficient space for the subjects you choose as electives, and if in doubt, consult your degree coordinator or the Associate Dean.

The Faculty of Science encourages students to take non-Science subjects as electives alongside their Science major. Science, Technology and Society (STS) subjects can form an ideal complement to your scientific major by helping you understand the social context and implications of your future work. They give you valuable experience in different types of study skills and thinking, and a chance to mix with students from a variety of backgrounds.

There are many possible subjects which may appeal to you. They are listed in the General Schedule which can be found in the University's Online Course Handbook: [www.uow.edu.au/handbook](http://www.uow.edu.au/handbook)

## 7.2 SUMMARY OF REGULATIONS FOR THE BACHELOR OF SCIENCE.

**A Bachelor of Science requires the completion of subjects to the value of**

**144 credit points over 3 (or more) years providing that:**

- (1) **at least 90 credit points** are for subjects listed in the Science Schedule and include at least **60 that comprise a major study** offered by one of the three Schools within the Faculty of Science \* ;
- (2) **no more than 60 credit points are for 100-level subjects;**
- (3) **at least 32 credit points are for 300-level subjects;**
- (4) **the 24 credit points at 300 level** required for the major are completed at Pass grade or above (Pass Restricted or Pass Conceded grades cannot be counted);
- (5) **no more than 24 credit points** are for subjects passed at Pass Restricted or Pass Conceded grade;
- (6) the Science **Minimum Mathematics Requirement** \*\* is satisfied (see Section 6.4 below);
- (7) the University's **Introductory Information Literacy Requirement** is satisfied (see Section 6.5 below).

\* The extra credit points from the Science Schedule to total 90, above those required for a major, are waived if a science major is being combined with an approved co-major from outside of the Faculty.

\*\* This requirement does not apply to the Human Geography or Land and Heritage Management major.

## 7.3 SUMMARY OF REGULATIONS FOR PRESCRIBED DEGREES

Degrees in which the majority of subjects are compulsory or must be selected from an optional list (with very little opportunity to freely select subjects) are known as prescribed degrees. Any variation to the subjects prescribed in the course structures **MUST** be approved by the Degree Coordinator.

**Prescribed degrees require the completion of subjects specified in the course structure, either**

**144 credit points over 3 (or more) years, or**

**192 credit points over 4 (or more) years**

**providing that:**

- (1) **no more than 60 credit points are for 100-level subjects;**
- (2) **all core subjects in the final year of a 3 year degree must be completed at Pass grade or above (Pass Restricted or Pass Conceded grades cannot be counted);**
- (3) no more than 1/6th of the total credit points are for subjects passed at Pass Restricted or Pass Conceded grade;
- (4) the Science **Minimum Mathematics Requirement** is satisfied (see Section 6.4 below);
- (5) the University's **Introductory Information Literacy Requirement** is satisfied (see Section 6.5 below).

## 7.4 MINIMUM MATHEMATICS REQUIREMENT

The Faculty of Science has a minimum Mathematics standard for graduation with any Science degree (not for entry to degrees). To qualify for the award of most degrees\* offered by the Faculty of Science, a candidate must satisfy **ONE** of the following:

- (i) be eligible to enrol in the subject MATH187 Mathematics 1A,  
i.e. have obtained at least: HSC Mathematics Band 4, or HSC Mathematics Extension 1
- (ii) have satisfactorily completed (i.e. achieved a grade of  $\geq 50\%$ ) MATH151 General Mathematics 1A, or
- (iii) have satisfactorily completed (i.e. achieved a grade of  $\geq 50\%$ ) MATH187, MATH141 or MATH161, or
- (iv) satisfy the requirement with a qualification deemed equivalent by the Associate Dean.

Students commencing a Science degree without the standard of Mathematics outlined in (i) above normally enrol in MATH151 in Autumn Session of the first year of their course. Alternatively, MATH151 may be taken in Summer Session, if offered. It is recommended that students complete MATH151 by the end of their first year. For 2009 and beyond MATH151 will be offered in alternate Summer Sessions, commencing with Summer 2008/2009, followed by Summer 2010/2011, Summer 2012/2013 and so on.

Students who have other qualifications in Mathematics at the required standard must apply to the Associate Dean (in writing, enclosing relevant documentation) for an exemption from MATH151.

\* The Minimum Mathematics Requirement does not apply to the Bachelor of Science (Human Geography or Land and Heritage Management). Students enrolled in either of these majors who opt to transfer to another Science degree or degree program should note that if they do not meet the requirement they will be required to pass MATH151.

## 7.5 INFORMATION LITERACY

### Introductory Information Literacy Requirement

All undergraduate students are required to complete the Information Literacies Introductory Program (ILIP100) run by the Library either during Orientation week or during the first six weeks of session. The requirements of ILIP100 can be viewed at [www.uow.edu.au/student/attributes/ilip](http://www.uow.edu.au/student/attributes/ilip) and will also be outlined during Orientation week.

### Computer Literacy

Computer Literacy skills are built into all degrees offered by the Faculty of Science. The minimum standard of computer literacy that will be acquired by completion of a Science degree is ability to use a:

- (i) word processor to prepare a plain English document such as an essay;
- (ii) graph-drawing program in a scientific context, and
- (iii) spreadsheet or database program in a scientific context.

### Statistical and Information Literacy

A wide range of statistical techniques are taught as an integral part of subjects at every level of all of the Science disciplines. Most third year subjects require knowledge of statistics as well as a high level of the library skills required for researching information. STAT252 (Statistics for the Natural Sciences) is a compulsory subject for Biological Sciences majors, and the BBiotech, BEnvSc and BMedChem degrees. Statistics subjects are core or optional subjects in most of the BSc majors. This subject is strongly recommended for all Science students. As the only pre-requisite is the prior completion of 24 credit points, it is possible to undertake it in the Spring Session of First Year.

### English Literacy

Students who are experiencing problems with their written or spoken standard of English should consult the Associate Dean who can advise students on the best program to suit their needs. The Faculty encourages students requiring this support to avail themselves of the Learning Development Centre's Faculty Language Program. In addition, students' attention is drawn to two English Language Studies subjects offered by the Faculty of Arts that can be taken as elective subjects:

		<b>cps</b>	<b>Session</b>
<b>ELS151</b>	English for Academic Purposes – A second language perspective (for students with non-English speaking background)	6	1,2
<b>ELS161</b>	English for Academic Purposes – A first language perspective (for students with an English speaking background)	6	1