

UTS: SCIENCE

BACHELOR OF SCIENCE

WHY THE BACHELOR OF SCIENCE?

We have restructured our Bachelor of Science (BSc) to provide greater flexibility, allowing you to choose your major field of study after first year, when you have experienced a range of disciplines. You will have to choose your general area of interest by choosing one of three Foundation streams, namely Mathematical, Physical, or Life and Environmental Sciences in first year.

However at the end of first year you will have a range of possible major study areas to choose from (shown below) depending on which Foundation you chose. If you take a specified major you will graduate with an award identified by that major (shown below). However if you choose not to select a specific major, but instead select a range of second and third year subjects to tailor your study according to your interests you will graduate with a BSc award.

| Foundation Stream | Award |
|---------------------------------|--|
| Mathematical Sciences | Bachelor of Science in Mathematics Bachelor of Science in Statistics |
| Physical Sciences | Bachelor of Science in Applied Chemistry Bachelor of Science in Applied Physics Bachelor of Science in Nanotechnology |
| Life and Environmental Sciences | Bachelor of Science in Marine Biology Bachelor of Science in Environmental Forensics Bachelor of Science in Environmental Biology Bachelor of Science in Urban Ecology Bachelor of Science in Biotechnology Bachelor of Science in Biomedical Science Bachelor of Science in Medical Science |

All study programs contain 24 credit points (typically 4 subjects) of free electives, which can be Science subjects or submajors in your area of science specialised study, or in a related science area (e.g. a Nanotechnology submajor in your Applied Physics degree). Alternatively, you could take subjects or a submajor from another faculty, for example a business or communication submajor.

HOW TO APPLY

If you think you know already which area you want to focus in you can select the UAC code for the relevant BSc major - you can still change your mind at the end of first year within the choices available from your foundation stream.

However if you are unclear of your preferred specialization you can select the code for the BSc (Flexible). Some major programs within the BSc are identical to those of separate named degrees (eg BSc in Medical Science and B Medical Science) however the entry cutoffs may be quite different and you may wish to consider preferencing both courses.

The entry cutoffs for different majors within the BSc may also be different and you may also wish to preference both the BSc (Flexible) and your preferred BSc specialization.

| UAC Code | Course |
|----------|-------------------------------|
| 607001 | BSc (Flexible) |
| 607003 | BSc (Mathematics) |
| 607003 | BSc (Statistics) |
| 607005 | BSc (Chemistry) |
| 607007 | BSc (Nanotechnology) |
| 607009 | BSc (Physics) |
| 607011 | BSc (Environmental Biology) |
| 607011 | BSc (Environmental Forensics) |
| 607011 | BSc (Marine Biology) |
| 607013 | BSc (Urban Ecology) |
| 607015 | BSc (Biotechnology) |
| 607015 | BSc (Biomedical Science) |
| 607015 | BSc (Medical Science) |

What you will learn and your career options will depend on the major or subject choices you make. An outline of one of the major programs are provided overpage.

HONOURS

The Bachelor of Science (Honours) is available to eligible students with an additional one year of full time study.

DIPLOMA IN SCIENTIFIC PRACTICE

The Diploma in Scientific Practice, a period of industrial training is available with an additional year of full-time study. It is not offered to international students.

COMBINED DEGREES

There are also combined degree programs in all specialisations (except Urban Ecology) with:

- Laws
- Business
- Engineering
- International Studies

UTS: MARINE BIOLOGY

BACHELOR OF SCIENCE IN MARINE BIOLOGY

WHAT WILL I LEARN?

This major focuses on how the marine environment works and how it can be better managed.

Graduates of this program will have a thorough understanding of the way plants, animals and micro-organisms function in marine ecosystems (including estuarine, shelf and open ocean ranging from tropical to temperate and polar environments.

Skills to detect and assess detrimental impacts on these marine environments resulting from anthropogenic sources and climate change are covered. Students learn these concepts and skills through a dynamic combination of theory, field and laboratory experiences.

CAREER OPTIONS

As a graduate of this major, career opportunities exist in the new NSW Department of Environment and Climate Change, state environmental protection authorities, and other state departments, such as Infrastructure Planning and Natural Resources.

Our graduates are also employed by local (coastal) councils as environmental officers, in resource industries and consulting firms; they are teachers at schools and at TAFE, and research officers in CSIRO and universities.

Many of them continue their training by undertaking an Honours year or postgraduate studies, e.g. Masters of Science and Doctoral degrees.

FULL TIME PROGRAM

YEAR 1

AUTUMN SEMESTER

| | |
|-------------------------------|-----|
| Cells Biology & Genetics | 6cp |
| The Biosphere | 6cp |
| Statistical Design & Analysis | 6cp |
| Chemistry 1 | 6cp |

SPRING SEMESTER

| | |
|----------------------------|-----|
| Biocomplexity | 6cp |
| Human Anatomy & Physiology | 6cp |
| Chemistry 2 | 6cp |
| Physical Aspects of Nature | 6cp |

YEAR 2

AUTUMN SEMESTER

| | |
|--------------------------------|-----|
| Ecology | 6cp |
| Experimental Design & Sampling | 6cp |
| Geological Processes | 6cp |
| Elective | 6cp |

SPRING SEMESTER

| | |
|-------------------------------------|-----|
| Animal Behaviour & Physiology | 6cp |
| Marine Communities* | 6cp |
| Plant Physiology & Ecophysiology | 6cp |
| Elective | 6cp |

YEAR 3

AUTUMN SEMESTER

| | |
|----------------------|-----|
| Aquatic Ecology | 6cp |
| GIS & Remote Sensing | 6cp |
| Elective | 6cp |
| <i>Any one of:</i> | |
| Marine Geoscience | 6cp |
| Fisheries Resources | 6cp |

SPRING SEMESTER

| | |
|---------------------------------------|-----|
| Environmental Protection & Management | 6cp |
| Marine Primary Producers* | 6cp |
| Coral Reef Ecosystems* | 6cp |
| Elective | 6cp |

* Subject includes field excursion of more than one day.

HONOURS

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COURSE CODES...

UTS course code: C10242
UAC code: 607011
Duration: 3 years full time
Location: City Campus
Assumed Knowledge: English, Mathematics (2 Unit) and any two units of science.

NEED TO KNOW MORE??

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