

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: NANOTECHNOLOGY

BACHELOR OF SCIENCE IN NANOTECHNOLOGY

WHY NANOTECHNOLOGY?

Nanotechnology is about understanding how the world works at the level of atoms and molecules and applying that knowledge to make useful things. Clothes that are completely stain proof, self-cleaning surfaces, energy-efficient window coatings and clear-gel sunscreens. These are nanotechnology products you can buy now. Targeted drug-delivery systems, smart materials that respond to their surroundings, DNA computers, paper thin, flexible displays. These are only a few of tomorrow's nanotechnologies.

WHAT WILL I LEARN?

Our degree combines a multi-discipline science foundation with subjects developed by the Institute of Nanoscale Technologies that present the cutting edge in nanotechnology. Hands-on training in the tools of nanotechnology are a core component. The innovation and commercialization process is examined to give graduates an appreciation of how new technologies may be brought to the market place. If you like science and want a degree with real outcomes and exciting career prospects then nanotechnology is for you.

CAREER OPTIONS

With a degree in Nanotechnology from UTS you could be working in careers as diverse as biomedical technologies, developing smart building materials, or the next generation of carbon-based electronics. A multidiscipline science background gives you access to existing science and technology employers, while your training as a nanotechnologist enables you to improve their products and processes

FULL TIME PROGRAM

YEAR 1

AUTUMN SEMESTER

Cell Biology & Genetics OR The Biosphere	6cp
Foundations of Physics	6cp
Mathematical Modelling for Science	6cp
Chemistry 1	6cp

SPRING SEMESTER

Statistics & Mathematics for Science	6cp
Introduction to Materials	6cp
Chemistry 2	6cp
Physical in Action	6cp

YEAR 2

AUTUMN SEMESTER

Mathematics for Physical Science	6cp
Nanomaterials	6cp
Physical Chemistry 1	6cp
Elective	6cp

SPRING SEMESTER

Imaging science	6cp
Quantum Physics	6cp
Bionanotechnology	6cp
Elective	6cp

YEAR 3

AUTUMN SEMESTER

Solid-State Science & Nanodevices	6cp
Applied Electronics & Interfacing	6cp
Molecular Nanotechnology	6cp
Elective	6cp

SPRING SEMESTER

Optics & Nanophotonics	6cp
Scanned Probe & Electron Microscopy	6cp
Surface Processes	6cp
Elective	6cp

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PROFESSIONAL RECOGNITION

This course has been designed so that graduates will meet the conditions required for graduate membership of the Australian Institute of Physics.

COURSE CODES..

UTS course code: C10242
UAC code: 607007
Duration: 3 years Full-Time
Location: City campus
Assumed Knowledge: Year 12
Mathematics, Chemistry and
Physics

NEED TO KNOW MORE??

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