Chemistry

The School of Chemistry is recognised nationally and internationally for producing world-class fundamental and applied research to address real-world challenges.

Students benefit from our strong links to industry including with the Australian Nuclear Science and Technology Organisation (ANSTO), the Commonwealth Science and Industrial Research Organisation (CSIRO), and the National Measurement Institute (NMI).

Our students work in state-of-the-art facilities being housed in one of Australia’s newest chemistry buildings, co-located by the Mark Wainwright Analytical Centre, and hosting a significant node of the ARC Centre of Excellence in Convergent Bio-Nano Science and Technology, the Australian Centre for Nanomedicine and the Centre for Advanced Macromolecular Design. We are consistently ranked amongst the world’s best chemistry schools and both our alumni and staff have been recognised with a host of awards both in Australia and internationally.

Undergraduate Studies in Chemistry

Chemistry is a central science dealing with the design, synthesis, analysis and properties of molecules. As a basic science, it is unique in providing opportunities for creativity. Chemistry develops essential problem-solving skills and an understanding of fundamental concepts that are relevant to a wide range of real-world applications.

There are various ways of studying chemistry depending on your preference. Chemistry can be studied as part of our degree programs or via majors in selected degree programs.

The following degree programs are offered by the School of Chemistry:

- **Bachelor of Medicinal Chemistry**
- **Bachelor of Science (Nanotechnology)**
- **Bachelor of Science (Advanced)**
- **Bachelor of Life Sciences**
  - **Bachelor of Life Sciences (International)**

Programs That Let Me Study Chemistry

Admissions Details

<table>
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<tr>
<th>Program</th>
<th>UAC code</th>
<th>UNSW program code</th>
<th>Length of study</th>
<th>Cut-off</th>
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<tr>
<td>Bachelor of Medicinal Chemistry</td>
<td>429720</td>
<td>3952</td>
<td>4 years full-time</td>
<td>ATAR 90.00</td>
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<td>Bachelor of Science (Nanotechnology)</td>
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<td>Bachelor of Science (Advanced)</td>
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<td>3972</td>
<td>4 years full-time</td>
<td>ATAR 95.00</td>
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<td>Bachelor of Life Sciences</td>
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<td>Bachelor of Science and Business</td>
<td>429100</td>
<td>3925</td>
<td>3 years full-time</td>
<td>ATAR 90.00</td>
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</tbody>
</table>

Career Opportunities

Chemistry graduates are highly employable across a range of industries, from research and development in the chemical and pharmaceutical sectors to roles in government, finance, and education.

Graduates from the School of Chemistry are well-prepared for careers in fields such as chemistry, biochemistry, materials science, environmental science, and research. The program provides a strong foundation in scientific principles and analytical skills, which are highly valued in a variety of industries.

Nanotechnology graduates have a unique set of skills that are in high demand, particularly in areas such as materials science, drug delivery systems, and environmental monitoring. The program provides a strong foundation in scientific principles and analytical skills, which are highly valued in a variety of industries.

The Chemistry major can also be studied within the following degree programs:

- **Bachelor of Life Sciences (Major: Biomedical Chemistry)**
- **Bachelor of Science (International)**
- **Bachelor of Science and Business**
- **Bachelor of Science and Business (International)**

**Bachelor of Life Sciences (Major: Biomedical Chemistry)**

The Bachelor of Life Sciences (Major: Biomedical Chemistry) degree offers flexibility and choice, with more than 42 subject areas to choose from, covering topics such as biochemistry, pharmacology, and genetics.

**Bachelor of Science (International)**

The Bachelor of Science (International) degree offers a unique opportunity to study in a foreign country, gaining international research experience and cultural awareness.

**Bachelor of Science and Business**

The Bachelor of Science and Business degree allows students to follow their passion for science and business. This combination will see graduates in high demand both locally and globally in the chemical and pharmaceutical sectors.

**Dual Degrees**

Dual degrees enable students to combine a Science program with a Business degree, providing a unique opportunity to develop skills in both scientific and business fields.

A fourth Honours year is available in these Chemistry programs and can be undertaken by students who have maintained a credit average or above. The Honours year involves a full-time research project supervised by a UNSW researcher. More information about the benefits of Honours is available on the School of Chemistry website: chemistry.unsw.edu.au
Student Testimonials

“Doing the medicinal chemistry degree at UNSW, for me, has been without any doubt the most enjoyable and rewarding decision that I have made. Since completing my first semester in 2013, building a solid basis to the knowledge that was to come, training my brain down pathways that were both challenging and exciting, I knew the degree was the perfect choice. Once I complete the course work component of my degree, I plan to continue my study into Honours, developing my practical and basic research skills to receive a Bachelor of Medicinal Chemistry. Afterwards I plan to apply for a PhD and conduct research within the field.”

Jack Duncan
Medicinal Chemistry student

“For as long as I can remember, I have always been passionate about science; and I didn’t just like one science, I liked all of them. That is why I chose to study nanotechnology at UNSW. Unlike other universities, it is only the UNSW School of Chemistry Nanotechnology program that involves learning concepts in chemistry, physics, biology, maths and materials science. I am now about to finish my Honours year and start my PhD. My research involved the use of nanocrystals, carbon nanomaterials and sunlight in order to split water into oxygen and hydrogen – a potential source of clean energy for everyone! The journey studying nanotechnology is a venture into a new world full of fascinating phenomena. My vision is to tackle problems in renewable energy through the wonders of nanotechnology.”

Tim Fang
Nanotechnology student

Alumnus Profile

“I started off at UNSW completing a science degree with honours in chemistry (2004-2007). I was always interested in chemistry and so I decided to pursue it at university. My honours year was a wonderful experience and in completing my honours, I was offered the opportunity to further continue my education by embarking on a PhD (2008-2011). Deciding that I would give it a go, I immersed myself in academia and had an interesting, stressful, yet always enlightening time. During my PhD, I was voted in as the president of the students of chemistry society, which presided over the chemistry student body. This allowed me to develop my leadership and organizational skills. The facilities and people at UNSW and especially in chemistry were outstanding and the connections that I made have been essential in furthering my career. Whilst completing my PhD investigating novel inorganic nanoporous materials, I also finished a graduate certificate in research management and commercialization. The skills that I learnt from both my PhD and Graduate certificate enabled me to start off my career as a consultant at a small boutique consulting company. Moving on from that, I now work as an analyst at Intellectual Ventures where I work with inventors and innovators to source and develop intellectual property for investment. My role allows me to continue working in a lab helping inventors develop inventions, as well as interacting with the broader scientific community, coming up with new and innovative ways to solve interesting problems.”

(Maggie has recently been promoted to Assistant Director at Intellectual Ventures).

Dr. Maggie Ng
Bachelor of Science (Chemistry), Honours
PhD (Chemistry)

For as long as I can remember, I have always been passionate about science; and I didn’t just like one science, I liked all of them. That is why I chose to study nanotechnology at UNSW. Unlike other universities, it is only the UNSW School of Chemistry Nanotechnology program that involves learning concepts in chemistry, physics, biology, maths and materials science. I am now about to finish my Honours year and start my PhD. My research involved the use of nanocrystals, carbon nanomaterials and sunlight in order to split water into oxygen and hydrogen – a potential source of clean energy for everyone! The journey studying nanotechnology is a venture into a new world full of fascinating phenomena. My vision is to tackle problems in renewable energy through the wonders of nanotechnology.

Tim Fang
Nanotechnology student

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