Mechatronics combines mechanical, electronic and software engineering to create computer-controlled machines and consumer products. It is the technology that underpins robotics and autonomous systems, automated manufacturing and intelligent microprocessor-based products.

**Your studies**
This degree places strong emphasis on the development of skills in digital electronics, microprocessors, computer control, and software design in a mechanical engineering environment.

It covers:
- mechanism and machine analysis and design
- electrical circuit theory and electronics
- digital electronics and computer systems
- power electronics and electrical machines
- systems modelling and simulation
- mechatronic systems analysis, design and prototyping
- embedded and real-time systems
- computer-aided design (CAD)
- manufacturing engineering
- robotic systems and science
- thermo-fluid engineering
- specialist electives.

**Your career**
You could work in the automotive, transport, mining, stevedoring, construction, agriculture, defence, computer systems and software industries. You will find work in areas such as:
- automatic control systems
- robotics and automation in industrial or non-traditional fields
- microprocessors and embedded systems
- product design and development
- biomedical devices and instrumentation
- computing and networking
- software design and programming
- technological systems analysis.

**Space Engineering Major**
The faculty offers a major in Space Engineering to high achieving students. If you have an ATAR of 99 or above, you may also apply for the Space Engineering major. Once you have enrolled, please contact us by email at engineering.enquiries@sydney.edu.au to request a variation to your enrolment to include the Space Engineering major units of study.
Engineering at Sydney
As one of the top 30 engineering and technology universities in the world*, we will provide you with the leadership skills to develop innovative, creative and sustainable solutions that promote positive change.

Clear pathways, widest choice
Our engineering degree options cover aeronautical, mechanical, mechatronic, biomedical, chemical and biomolecular, civil, electrical, and software engineering.

Depending on your degree stream, up to 15 majors are available to personalise your degree:
- Chemical Engineering
- Computer Engineering
- Construction Management
- Electrical Engineering
- Environmental Engineering
- Geotechnical Engineering
- Information Technology (Engineering)
- Materials
- Mechanical Engineering
- Mechatronic Engineering
- Power Engineering
- Space Engineering
- Structures
- Telecommunications Engineering
- Transport Engineering

You can broaden your career options even further by combining your degree with studies in arts, law, architecture, science, commerce, music or medical science. Combined degrees are mostly five years in length and very popular, as they allow you to combine a range of interests.

Flexible First Year Program
If you're not sure in which area of engineering you'd like to specialise, our Flexible First Year program (UAC code 511756) gives you the time and freedom to discover where your strengths and interests lie before deciding.

Advanced Engineering program
Our Advanced Engineering program is open to students demonstrating outstanding academic ability (indicative ATAR of 97.5 or above). You will take advanced units covering topics such as sustainability and humanitarian issues, business planning and strategy, technology and education. You will also participate in small groups working on problems relevant to the community. You may take any engineering stream within this program. Apply directly through UAC (UAC code 511700).

Assumed knowledge
These HSC subjects are assumed knowledge for our engineering degrees:
- Mathematics Extension 1
- Physics and/or Chemistry (depending on stream)

The whole you, not just your ATAR
If you would like to study engineering subjects at university but are worried about making the ATAR cut-off, don't worry. Our Flexible Entry scheme considers your ATAR as well as your performance in maths and science subjects, and your leadership capability. Apply at:
- sydney.edu.au/engineering/flexibleentry

Globally recognised qualifications
Our engineering degrees are accredited by Engineers Australia, so you will graduate with a prestigious qualification that is recognised worldwide.

Scholarships
We offer more than 500 University-wide scholarships to undergraduates every year. The Faculty of Engineering and Information Technologies also offers a variety of entry, merit and industry scholarships.

For more information about scholarships visit:
- sydney.edu.au/engineering/scholarships
- sydney.edu.au/scholarships

*QS World University Rankings 2015/16