MECHATRONIC ENGINEERING

Mechatronic engineering is the hybrid discipline of mechanics, electronics and computing. It is concerned with the creation, design and building of intelligent machines, powered by intelligent drive systems loaded with advanced sensors backed up by sophisticated software and control systems.

“I enjoyed playing with LEGO and robots from a young age, and the mechatronics degree has allowed me to continue this interest, particularly in terms of designing and constructing autonomous systems capable of thinking and acting for themselves. I have had the opportunity to participate in robotics competitions and research, which has not only provided invaluable learning experiences, but has also given me the opportunity to travel around Australia and overseas.”

“So what’s this degree all about?”

UNSW ENGINEERING

Not only are we the largest engineering faculty in Australia with the widest choice of degrees through our nine schools, we also have 65 years of experience, passionate academics, brilliant engineering researchers and partnerships with government and industry, both here and overseas. It’s no wonder we are the #1 engineering faculty in the country.”

APPLICATION INFORMATION

For everything you need to know about applying to UNSW Engineering, including scholarships and our alternative entry options, visit our faculty website at engineering.unsw.edu.au

FIND OUT MORE ABOUT MECHATRONIC ENGINEERING

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CRICOS Provider no: 00098G

*Shanghai Jiao Tong University’s Academic Ranking of World Universities in Engineering/Technology and Computer Sciences 2014.

WHAT DO MECHATRONIC ENGINEERS DO?

Mechatronic engineers create, design and build intelligent machines, ranging from household white goods to advanced robotic systems such as unmanned aerial vehicles and self-driving cars. Many modern machines have a significant mechatronic component and are increasingly being used in the mining, agriculture, defence, biomedical, automotive and manufacturing industries. Mechatronic engineers are often involved in work at the cutting edge of technology.

CAREER OPPORTUNITIES

As a mechatronic engineer you could work in one of the many industries where automation is in demand, such as manufacturing, automotive, mining, cargo-handling, and agriculture. You could also work in companies that design and manufacture consumer devices such as mobile phones, specialised industrial equipment and biomedical devices such as Cochlear implants, or as a consulting engineer dealing with complex project management across a range of engineering disciplines.
The first year of all five degrees offered by the School of Mechanical and Manufacturing Engineering is similar. Mechatronic students begin their specialised subjects in their second year. The degree is packed full of engineering design – from mechanical design, to design of robots and control systems. And for those students wishing to take a step further, there are various dual degrees available – including a Master of Biomedical Engineering.

ASSUMED KNOWLEDGE
HSC Mathematics Extension 1 and Physics.

RECOMMENDED KNOWLEDGE
HSC Mathematics Extension 2 or Chemistry or Engineering Studies or Software Design and Development or Information Processes and Technology.

INDUSTRIAL EXPERIENCE
We love to produce graduates who are ready to hit the ground running, so we make it a compulsory part of the degree to complete at least 60 days of approved industrial training. Students can do this within Australia or overseas and many students are offered jobs as a result of their training. Students can do this within Australia or overseas and many students are offered jobs as a result of their training. To help you connect with employers, the School of Mechanical and Manufacturing Engineering.

DEGREE OPTIONS
Dual Degrees:
You can combine your Bachelor of Engineering (Honours) with a number of degrees from across the University, including Arts, Commerce, Law, Science and Biomedical Engineering.

For the latest on your dual degree options, visit engineering.unsw.edu.au or search the online handbook at handbook.unsw.edu.au

Alternatives:
Check out the table below for the other programs offered at the School of Mechanical and Manufacturing Engineering.

Information provided about subjects, units, courses and any arrangements for courses including staffing, are an expression of intent only and are not to be taken as a firm offer or undertaking. The School of Mechanical and Manufacturing Engineering, UNSW reserves the right to discontinue or vary subjects, units, courses, or arrangements at any time without notice and to impose limitations on enrolment in any course.

SCHOOL OF MECHANICAL AND MANUFACTURING ENGINEERING
We have been a leading educational provider for 65 years, and with over 1500 undergraduate students and 90 staff members we are the largest mechanical engineering school in Australia. Students can choose from five engineering sub-disciplines – aerospace, mechanical, mechanical and manufacturing, mechatronic and naval architecture – and are inspired and guided by passionate teaching staff and researchers.

• New state-of-the-art building under construction
• Ultra-modern teaching labs, including a dedicated undergraduate teaching space
• Cutting-edge research facilities
• Dedicated mechatronic labs equipped with robots and autonomous systems
• Strong partnerships with industry in education, research, industrial training and employment

Strong partnerships with industry in education, research, industrial training and employment