• STUDENT •
PROFILE

Rebecca Kendall
Bachelor of Engineering (Civil)
(Engineering Scholars Program)
Geelong Campus at Waurn Ponds

'I like that the first year of Engineering is broad and you get to do all sorts of engineering. With civil engineering I like the solution focus. I would like to be able to drive down the road and say "I built that".

I was offered a place in Deakin's Engineering Scholars Program and I also received an IGNITED* scholarship. The opportunity to have an industry mentor has been very valuable … this helps me to keep motivated.

Organised placements at the City of Greater Geelong and City West Water have given me invaluable knowledge.'

* Initiative for a Girls' Network in Information Technology and Engineering @ Deakin.

Engineering

With a shortage in the industry that is set to continue for at least the next 10 years there has never been a better time to choose a career in engineering.

At Deakin's School of Engineering we focus on the employability of our graduates and the future needs of industry. Our graduates will be well-rounded engineers with significant exposure to professional engineering practices and able to meet future challenges caused by climate change and sustainability issues.

Choose your specialisation

Engineering at Deakin starts with a common first year to give you a broad base of engineering knowledge and help you make a more informed decision about your future career.

At the end of this year, you will choose to specialise in one of the following areas:

» Civil
» Mechanical
» Mechatronics and robotics.

Our highly-relevant programs are recognised for their professional industry relevance and are delivered in an engaging learning format.

First-class facilities

As a Deakin Engineering student you will have access to the latest technology and equipment. The complete refurbishment of our civil engineering laboratory was completed in early 2011, and further refurbishments to our mechanical, mechatronics and robotics, and physics laboratories will take place during the year. You will also have access to the high-tech, purpose-built facilities at the Geelong Technology Precinct (GTP) located, like our laboratories, on Deakin's Geelong Campus at Waurn Ponds.

Innovative engineering research

A further advantage of studying Engineering at Deakin is the opportunity to learn from world-standard researchers. The GTP integrates high-level research capabilities with specialised research equipment and industrial-scale infrastructure. You will also have the opportunity to carry out final-year engineering projects with leading researchers in the GTP.

Flexibility

At Deakin we offer you the flexibility and choice to make your learning experience fit with your lifestyle, work and personal commitments. We are one of only a few universities in Australia to offer Engineering in both on-campus and off-campus mode, allowing you to choose the study option that suits you best.

Hands-on learning

An Engineering qualification from Deakin is based on practical, hands-on learning.

Students in the mechanical stream have the opportunity to design and build a race car for international competitions, while mechatronics and robotics students take on the challenge of building robots that compete with each other.

Civil engineering students are involved with planning and analysis requiring real-life community considerations and implications, and relevant industry knowledge is gained through a range of site visits and field trips.

The hands-on work complements the theoretical knowledge offered in the classroom to create career-ready graduates. Two-week professional practice units also provide you with opportunities for workplace visits, practical experience, industry learning and the establishment of valuable networks.

Strong links

Deakin's School of Engineering has extensive partnerships with industry and through our course advisory board we ensure that what we teach is relevant and responsive to the changing needs of industry.

Collaborative research partnerships as well as strong educational partnerships with industry provide you with a custom-made study program to suit your professional development needs.

Graduate outcomes

As a Deakin Engineering graduate, you will have the opportunity to work in a range of sought-after careers with organisations in the automotive, manufacturing, electronics, telecommunications, construction, mining, resources, aeronautical, aerospace, water resource management, railroad and ship building industries.

Engineering

Bachelor of Engineering 4 G X

Deakin code	VTAC code	Indicative first year fee[1]	ATAR
S367	G 15401 (CSP) X 14611 (CSP)	$6550 (CSP)	G 65.80 X N/A
Year 12 prerequisites	VCE units 3 and 4 – a study score of at least 25 in English (ESL) or 20 in any other English and a study score of at least 20 in mathematical methods (either) or specialist mathematics.		
Non-Year 12 requirements	VTAC Pi form and demonstrated mathematical background equivalent to Year 12 level.		

Deakin's Bachelor of Engineering has been developed in accordance with the requirements of Engineers Australia and graduates are eligible for graduate professional membership. This course will provide you with broad theoretical knowledge and hands-on experience to build a successful career in one of the many diverse roles available to you.

An honours year is embedded as part of this degree, which can provide you with a competitive edge in the job market or a pathway into a higher degree.

Major sequences

You will choose one area as a major sequence at the end of the common first year:

» Civil
» Mechanical
» Mechatronics and robotics.

This format allows you to gain a broad base of knowledge in engineering and make a more informed decision.

Civil engineering G X

A civil engineering degree gives you the building blocks to design, construct and maintain our community. Learn to plan and build the infrastructure systems that are necessary for our day-to-day life. Civil engineers are responsible for the design, construction and project management of roads, airports and railways; water supply and sewerage systems; water resources management; and buildings and other infrastructures.

Career opportunities

This course covers the broad range of civil engineering disciplines including engineering materials, structural engineering, water engineering, geotechnical engineering and transport engineering. Graduates can expect to gain employment in a wide range of organisations such as construction companies, water authorities, local government bodies, public works departments and as consulting engineers.

Mechanical engineering G X

Product development and innovation are key drivers for Australian industry. To meet this demand, Deakin's mechanical engineering program brings together leading computer-aided engineering technologies and advanced materials to provide one of the most relevant mechanical engineering degrees in Australia.

Career opportunities

The automotive industry, in particular, has been involved in the design of the degree, and graduates can look forward to a high level of employment in this industry and supplier companies, as well as other leading manufacturing and design companies. The course draws heavily on Deakin's world-class research teams in automotive engineering and advanced materials, with a practical hands-on approach that includes an opportunity to work on the Formula Society of Automotive Engineering (FSAE) race car, designed and built by our students. Along the way, you will develop project management, communication and financial management skills, as well as a solid understanding of product and process modelling and designing for sustainability.

Mechatronics and robotics engineering G X

Mechatronics and robotics are combined in one degree at Deakin, providing a broader-based course and leading to more career choices. The course combines electronic, mechanical and robotic engineering, with mechanical engineering and robotics featuring more strongly than in other degree programs. It offers studies in autonomous systems, robotic system design and industrial communication design. The course is tailored to industry needs and has close links through strong research programs, cutting-edge technology and facilities, and project-based learning. You can access state-of-the-art robotics systems and, through final-year projects, gain experience in the emerging haptics and virtual reality areas.

Career opportunities

This interdisciplinary program will enable you to take up employment across a wide range of employer groups, such as manufacturers of mechatronic-based consumer goods, aircraft control and navigation industry, automated vehicles and automotive industry, other advanced manufacturing industries, and traditional mining and agricultural industries.

Bachelor of Engineering (Engineering Scholars Program) 4 G

Deakin code	VTAC code	Indicative first year fee[1]	ATAR
N/A	15011 (CSP)	$6470 (CSP)	91.10
Year 12 prerequisites	VCE units 3 and 4 – a study score of at least 25 in English (ESL) or 20 in any other English and a study score of at least 20 in mathematical methods (either) or specialist mathematics. Minimum ATAR 80.00		

The specific Bachelor of Engineering (Engineering Scholars Program) is available to students who have achieved a minimum ATAR score of 80.00 (or equivalent), and is designed to extend high-achieving students by providing them with opportunities to work with Deakin's leading researchers and industry partners on cutting-edge projects. You will be assigned a mentor and be given opportunities for work placement and vacation work in the Geelong Technology Precinct (GTP).

This course has been developed in accordance with the requirements of Engineers Australia and graduates are eligible for graduate professional membership.

Major sequences

You will choose one area as a major sequence at the end of the common first year:

» Civil
» Mechanical
» Mechatronics and robotics.

This format allows you to gain a broad base of knowledge in engineering and make a more informed decision.

Science and Technology (Dean's Scholars Program)

You may apply for the Dean's Scholars Program. For more information see page 93.

KEY

3 Course duration
B Melbourne Campus at Burwood
F Geelong Waterfront Campus
G Geelong Campus at Waurn Ponds
W Warrnambool Campus
X Off campus

Combined courses

Bachelor of Engineering/ Bachelor of Commerce 5 G X

Deakin code	VTAC code	Indicative first year fee[1]	ATAR
D373	G 15761 (CSP) X 14601 (CSP)	$7070 (CSP)	G 77.05 X N/A
Year 12 prerequisites	VCE units 3 and 4 – a study score of at least 25 in English (ESL) or 20 in any other English and a study score of at least 20 in mathematical methods (either) or specialist mathematics.		
Non-Year 12 requirements	VTAC Pi form and demonstrated mathematical background equivalent to Year 12 level.		

Increase your employment opportunities by studying different areas for professional recognition or personal interest in this combined course. Combine one of the Engineering major sequences – civil, mechanical or mechatronics and robotics – with a Commerce degree in a range of disciplines including economics, eBusiness, technology management, and international trade and economic policy.

For more information, including major sequences and career opportunities, please refer to individual degree listing on page 56 for Bachelor of Engineering and page 42 for Bachelor of Commerce or visit **www.deakin.edu.au**.

Bachelor of Engineering/ Bachelor of Information Technology 5 G X

Deakin code	VTAC code	Indicative first year fee[1]	ATAR
D375	G 15271 (CSP) X 14591 (CSP)	$6360 (CSP)	G 65.85 X N/A
Year 12 prerequisites	VCE units 3 and 4 – a study score of at least 25 in English (ESL) or 20 in any other English and a study score of at least 20 in mathematical methods (either) or specialist mathematics.		
Non-Year 12 requirements	VTAC Pi form and demonstrated mathematical background equivalent to Year 12 level.		

This combined course enables you to specialise in a niche field by gaining two professional and highly-complementary degrees. Combine one of the Engineering major sequences – civil, mechanical or mechatronics and robotics – with an Information Technology degree.

For more information, including major sequences and career opportunities, please refer to individual degree listing on page 56 for Bachelor of Engineering and page 72 for Bachelor of Information Technology or visit **www.deakin.edu.au**.

Bachelor of Engineering/Bachelor of Science 5 G

Deakin code	VTAC code	Indicative first year fee[1]	ATAR
D372	15321 (CSP)	$6460 (CSP)	65.65
Year 12 prerequisites	VCE units 3 and 4 – a study score of at least 25 in English (ESL) or 20 in any other English and a study score of at least 20 in mathematical methods (either) or specialist mathematics.		
Non-Year 12 requirements	VTAC Pi form and demonstrated mathematical background equivalent to Year 12 level.		

This combined course will strengthen your Engineering degree with complementary studies in Science. You can combine one of the Engineering major sequences – civil, mechanical or mechatronics and robotics – with a Science degree in a range of disciplines, such as biology, chemistry, mathematical modelling or zoology.

For more information, including major sequences and career opportunities, please refer to individual degree listing on page 56 for Bachelor of Engineering and page 93 for Bachelor of Science or visit **www.deakin.edu.au**.

More information on Engineering

2012 Undergraduate Engineering Career Booklet

P 1300 DEGREE (1300 334 733)
E enquire@deakin.edu.au

www.deakin.edu.au/scitech/eng

For the latest information about new courses at Deakin University, please visit **www.deakin.edu.au**.

1 The indicative first year fee is an approximate indication of the cost of this course in the first year of full-time study for a Commonwealth Supported Place. We can't specify the exact figure, because fees are charged per unit, not per course, so the actual fees may vary depending on what units you choose to study.

The fees quoted in this book are for Australian students in 2011, and may change for 2012 and later years. You can find more information about fees on our web site www.deakin.edu.au or page 103. For information on fees for international students, please visit www.deakin.edu.au/international.

Deakin Engineering students showcase their skills in robotics at Deakin's Open Day.