Bachelor of Mechanical Engineering (Honours)

Undergraduate

Study Deakin’s Bachelor of Mechanical Engineering (Honours) to learn how to design, produce and run systems, devices and machinery, from cars to robots.

Deakin’s Bachelor of Mechanical Engineering (Honours) prepares you to be an industry-ready professional engineer capable of applying the principles of technology and science to the design, production and operation of systems, devices and machinery. Today, mechanical engineers lend their skills to the development of almost every design imaginable – especially complex products like cars, robots and aeroplanes.

Course overview

Product development and advanced manufacturing are key drivers for the future of Australian industry. To meet this need, Deakin’s mechanical engineering degree brings together leading computer-aided engineering technologies with advanced materials and manufacturing knowledge to provide one of the most relevant mechanical engineering degrees in Australia. Through Project-Oriented Design-Based Learning (PODBL), students learn fundamental theory and apply it to industry-relevant projects to develop innovative solutions to real-world problems.

As a student you will benefit from Deakin’s world-class research teams in automotive engineering and advanced materials, our strong links with industry and our state-of-the-art facilities.

During the course you will cover core mechanical disciplines including machine design, thermo-fluids, structural design and industrial control while developing skills in project management, communication, and teamwork. You will also gain a solid understanding of product and process modelling, and how to design for sustainability.

Course structure

Bachelor of Mechanical Engineering (Honours)

Location: Melbourne Burwood Campus¹ [B], Geelong Waurn Ponds Campus [WP] and Cloud Campus² [C]

Duration: 4 years full-time study (or part-time equivalent)

Intake: March (Trimester 1), July (Trimester 2)³

Deakin code: S462

ATAR score: [B] 70.8 [C] N/A [WP] 67.2

VTAC code: Melbourne Burwood Campus (1400514801), Geelong Waurn Ponds Campus (1400314801), Cloud Campus (1400614801)

The Bachelor of Mechanical Engineering (Honours) consists of 32 credit points of study, including 26 core units (totalling 31 credit points) and 1 elective unit (worth 1 credit point).

Hands-on learning

You will also have opportunities to test your mechanical design and engineering skills in challenges such as the World Solar Challenge and Warman Design and Build Competition.

World-class facilities

Engineering students at Deakin will use world-class facilities located within the Centre for Advanced Design in Engineering Training (CADET) building at the Geelong Waurn Ponds Campus. Having access to some of the best facilities in the Australian sector allows students to realise and validate their designs through combinations of computer simulation, prototyping, testing and manufacturing.

¹ The first year is available at all three campuses. Students undertaking first year at the Melbourne Burwood Campus can choose to complete their course requirements either at the Geelong Waurn Ponds Campus or via the Cloud Campus.

² Cloud Campus students are required to participate in campus-based intensive activities each trimester at the Geelong Waurn Ponds Campus.

³ Trimester 2 intake only available at Waurn Ponds (Geelong) and Cloud Campus.

⁴ Lowest selection rank of an applicant to which an offer was made in 2019.

⁵ The ATAR is ‘unpublished’. ‘Unpublished’ means the course is available at this campus, but the lowest selection rank of an applicant to which an offer was made in isn’t available.

deaquin.edu.au/course/S462
‘In the CADET building we have access to Digital and Additive Manufacturing processes. These are of a great benefit since they allow us to create accurate prototype parts and highly optimized working parts. The learning environment at Deakin is very collaborative. Academic staff are always available for assistance, and students work alongside one another.’

Jordan Ritchie
Bachelor of Mechanical Engineering (Honours) student

Professional recognition
Deakin’s Bachelor of Mechanical Engineering (Honours) is accredited by Engineers Australia, which gives the degree international recognition, allowing graduates to practise as professional engineers in many countries around the world.

Career outcomes
Graduates have a high degree of employability in the automotive, manufacturing and mining sectors, as well as a range of other industries that utilise student’s strong engineering design and product development skills. Therefore, graduates can also expect employment opportunities in the aircraft, ship-building, automotive, aerospace, railroad, defence and textiles industries.

Professional industry experience
Professional Engineering Practice is a compulsory unit in all Deakin engineering degrees. This means you will have a minimum of 60 days work experience in one or more organisations, giving you insight into your future career options.

You will also study a range of project-oriented design-based learning and project-based learning units, bringing together theory, site studies and laboratory investigations, including Structural Design, Thermo-Fluid System Design and Industrial Control, for example.

Interested in applying?

Entry requirements

Entry for applicants with recent secondary education (previous three years) will be based on their performance in Senior Secondary Certificate of Education, with pre-requisite units 3 and 4; a study score of at least 25 in English EAL (English as an additional language) or 20 in English other than EAL and a study score of at least 20 in mathematical methods (any) or specialist mathematics (or equivalent).

Entry for applicants with previous Tertiary, VET, life or work experience: Prerequisites of English and mathematics as for year 12 school leavers (or equivalent).

Entry will be based on their performance in:

• Senior Secondary Certificate of Education with ATAR of at least 50 or equivalent OR
• Certificate IV in a related discipline OR
• Diploma in any discipline or 50% completion of Diploma in a related discipline OR
• Successful completion of relevant study – equivalent to at least two Deakin University units – at an accredited higher education institution OR
• Evidence of academic capability judged to be equivalent, including Foundation program approved by Faculty Board, or relevant work or life experience.

How to apply

Depending on your course, our flexible trimester system means you may be able to start in Trimester 1 (March), 2 (July) or 3 (November).

If you’re currently enrolled in Year 12 (in 2019), applications for Trimester 1 must be made through VTAC, www.vtac.edu.au. Note that when you apply via VTAC, you can’t also apply directly to Deakin.

Conversely, you can apply directly to Deakin for Trimester 1 if you’re not currently enrolled in Year 12 and you haven’t submitted a VTAC application (so long as you’re just applying for one course).

Applications for Trimester 2 or 3 should be made directly to Deakin via the applicant portal, deakin.edu.au/apply.