

Professional engineering

Professional Engineering Engineers harness science and technology in order to explain and enhance everyday life. Almost every aspect of our lives has somehow been influenced by an Engineer – the water we drink, the buildings we live, learn and work in, products created in factories, computers we surf the net on, the appliances and vehicles that make our lives more efficient and comfortable – all owe their existence to Engineers. Engineering courses provide students with a strong foundation in science, and the problem solving skills to design, create and improve systems throughout their careers.

A great deal of engineering work uses computers. This can include software design, testing, the control of systems, direction of equipment and analysis of the properties of materials. To become a professional Engineer, you need to complete a four-year full-time Bachelor of Engineering degree at a university. Many students choose to undertake a combined degree course, combining Engineering with Science, Business/Commerce, Arts or a range of other disciplines. It is also possible to qualify as an Engineering Technician or associate through completing a diploma course at a TAFE. Relevant work experience is usually a key element of any Engineering qualification.

Professional Engineering Disciplines Historically, Engineering has been divided into the four broad disciplines of Chemical, Civil, Electrical and Mechanical Engineering. Within each discipline there are several branches of Engineering covering an enormous range of fields. In recent years, new disciplines of Engineering, such as Computer Systems, Environmental and Biomedical Engineering and Mechatronics Engineering have emerged.

Download a complete copy of [Careers in Engineering here](#).

DISU wishes to thank Engineering Australia and the engineering professionals who provided contributions and/or assistance with the content of this booklet.