# Welcome to UTS Engineering

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UTS acknowledges the Gadigal People of the Eora Nation and the Boorooberongal People of the Dharug Nation upon whose ancestral lands our campuses stand. We would also like to pay respect to the Elders both past and present, acknowledging them as the traditional custodians of knowledge for these lands.
WHY ENGINEERING AT UTS?

OUR DIFFERENCE
Nothing will prepare you better than real industry experience. That’s why we offer hands-on, practice-based learning.

A STEP AHEAD
Theory is great, but hands-on experience sets you apart. Our industry partnerships enable us to offer you working knowledge throughout your degree. And you’ll study in world-class, purpose-built teaching spaces and laboratories.

CONNECTIONS THAT COUNT
Would access to more than 1,000 companies help your career to boom? Of course it would. UTS also has its own internship team to help you turn access into valuable work experience.

THE WORLD IS WATCHING
Put yourself in the right place from day one. We may be young, but we’re making our mark quickly. Among universities under the age of 50, UTS is already the No.1 ranked university in Australia and No.8 in the world. And you couldn’t study in a better location. 40% of Australia’s creative industry head offices call our neighbourhood home.

EXPAND YOUR HORIZONS
Every door in the world is open to you right now. Keep it that way. Use our Global Exchange, International Studies course or Beyond UTS International Leadership Development (BUiLD) program with its overseas volunteering placements, to lay down the foundations for a global career.

DO IT YOUR WAY
We get it, you can’t hit ‘pause’ on life when you start university. Find the timetable that suits you with our day/evening classes, summer school and part-time study options.
Inside the Engineering and IT Building
ENGINEERING AND IT BUILDING

Classes in the Engineering and IT Building commenced in 2015; it’s a state-of-the-art, 5-star green building featuring next-generation learning spaces and laboratories. Classrooms and collaborative theatres feature digital screens and moveable furniture to support group work, technology-enabled activities and practice-based learning. The building is embedded with sensors to monitor temperature, air quality, noise, and dust particles, for use in student research projects.

UTS DATA ARENA

The UTS Data Arena is a 3D data visualisation arena showcasing the latest in immersive technology – it enables a unique method for the exploration and visualisation of data. The facility allows researchers to observe interrelationships, patterns and anomalies not normally seen in data portrayed in a 2D format.

LABORATORIES

The building contains civil, electrical, information and communication technology, and mechanical laboratories, where you can gain hands-on, practical experience. You’ll also have access to specialised computer labs, including the UTS Remote Laboratory – one of the world’s largest and most advanced remote laboratories. It enables you to schedule and conduct real-time experiments anytime, from anywhere.

FEIT LEARNING PRECINCT

In between classes you can study or conduct group work in the FEIT Learning Precinct, where you can also access teachers for support, get your hands on reference material and other resources.

SOFTWARE DEVELOPMENT STUDIO

A rich environment for you to become professionally competent via a collaborative industry software development experience.

UTS LIBRARY

The library has expanded to include an underground storage system that uses robots to retrieve books, freeing library space for student collaboration and quiet study. This upgrade is part of the UTS City Campus Master Plan, a $1 billion investment to redevelop UTS.

UTS HATCHERY

The Hatchery pre-incubator is a new, distinctive UTS entrepreneurship program designed to give you startup skills and to provide access to resources to help launch the entrepreneurs of the future.

The program is 15–30 weeks, up to 4 hours per week. What can you gain from the Hatchery?

- Resources to develop entrepreneurial ideas and skills
- Opportunities to network with relevant industry professionals
- Access to mentorship and other like-minded students

Graduating UTS students will also be given guidance to access resources for the next stages of development from both UTS or our industry partners. You don’t even have to have an existing startup idea to get involved.

Learn more at hatchery.uts.edu.au
ANTON KOMAROV

Bachelor of Engineering (Electrical), Diploma in Professional Engineering Practice

As the founder of the UTS competitive surfing team, Anton Komarov has had a lot of experience juggling work and play. The electrical engineer says that early in his course, he was a typical uni student. “I didn’t want to work; I just wanted to go to the beach,” he says.

Fast forward a few years, however, and Anton has completed two professional placements, spent an additional year working for his internship employer, and has secured a job with Origin Energy as an energy trading analyst.

The turning point was the internship requirement of the Diploma in Engineering Practice. After landing a placement with Lighting Art and Science, a lighting and electrical consultancy, Anton completed both a junior and senior internship, and then stayed on as an employee.

“Instead of treating it as an internship, I treated it like a normal job, and graduated with two years’ professional experience,” he says.

The new job with Origin Energy was largely the result of his practical experience, combined with UTS’s practice-oriented course content.

“The complexity of the equations that UTS puts you through gives you an aptitude to solve problems. Engineering is creative problem solving, and it takes a degree of creativity and a degree of linking processes to succeed,” he says.

“They don’t teach energy trading at uni, so when I was assessed for the role at Origin, I was assessed on my competence – on my experience, what I’ve learnt up until this date.

“It’s the practical experience and professional skills you develop in the workplace that really sets you apart from everyone else.”

Anton balanced his academic endeavours with a healthy dose of sports. His competitive surf team, called the UTS Deagles, went to Uni Games every year for five years.

“In my last year of uni, I really figured it out and we managed to win the men’s, women’s and overall championship,” he says.

Read more student profiles uts.edu.au/eng-student-profiles
Feedback from employers consistently shows that students who gain work experience during their studies are highly sought after. To enhance your employability, UTS Engineering courses are offered in conjunction with the Diploma in Professional Engineering Practice.

Q: WHAT IS THE DIPLOMA IN PROFESSIONAL ENGINEERING PRACTICE?
A. All students enrolled in the Diploma in Professional Engineering Practice undertake a 48-week structured Practice Program, consisting of two 6-month internships alongside their engineering course.

The diploma is a compulsory component for all domestic students enrolled in a single professional engineering course.

The internship enables students to link learning in the workplace to learning at university. In addition, it ensures that graduates are in high demand with employers. These internships also provide employers with an opportunity to trial and recruit prospective graduate employees.

Q: OTHER UNIVERSITIES REQUIRE STUDENTS TO COMPLETE THREE MONTHS EXPERIENCE; ISN’T THAT ENOUGH?
A. Developing complex engineering expertise can take a long time – typically 3-4 years post-graduation. The longer your internship, the greater exposure you’ll have to the realities of the engineering world and the measures taken to tackle complex projects.

At UTS, you’ll complete two internships, one as early as second year and the other in fourth year – a total of 12 months, which will put you at a distinct advantage at a job interview (if you haven’t already stitched up employment in your second internship).

> Internship 1
Returning to university as a young professional will inform your further study, and no doubt your approach to learning will shift. Moving forward, you’ll know which skills you’ll need to pick up and why.

> Internship 2
When you do your second internship, you’ll be close to graduating, so the experience will give you a valuable introduction to life after your degree. Many of our students finish their degree by studying part-time and working part-time as trainee engineers, often with their second internship employer.

THE UTS COURSE IS 5 YEARS LONG, WHILE OTHER UNIVERSITIES OFFER 4-YEAR ENGINEERING COURSES. WHY SHOULD I SIGN UP FOR THE LONGER DEGREE?
A. With our longer degree, you graduate with a year of experience, often 9 months more than graduates from other universities, giving you a competitive edge at interviews. Further, many of our students find employment through their final internships, securing work before they’ve even graduated.

Internships often involve paid work, which also means that you could be earning while studying.

Graduating with a years industry experience also means that you might only need two more years of engineering work experience to meet the engineering experience criteria required to apply for Chartered Professional Engineer (CPEng).

OUR STAFF ARE HERE TO HELP
You’re not on your own when looking for internships. Dedicated staff are available to assist you with resume writing, interview skills and job finding strategies. We maintain links with more than 1000 organisations offering both scholarships and internships, the latter being advertised on our in-house portal, CareerHub. We also offer opportunities to find mentors, meet contacts, and build networks that will prove invaluable in your career.

ENGINEERING PRACTICE AND WORK INTEGRATED LEARNING SUBJECTS
As part of the Diploma in Professional Engineering Practice, you’ll complete Engineering Practice and Work Integrated Learning subjects before, during and after your internships. Preparation subjects assist you in finding an internship and learning how to learn from experience.

Work Integrated Learning subjects, comprising online modules developed in collaboration with leading industry practitioners, enhance the industry experience by adding breadth on topics such as professionalism, career pathways and the development of an online portfolio of evidence of competence. The portfolio is useful for securing future employment and also for application for chartered status.

FINANCIAL BENEFITS
Pay can vary a great deal as students directly negotiate their internship conditions. In 2016, the average weekly salary for UTS Engineering students on their first placement was approximately $680, and $796 while on their second placement.

FEES
The two internship periods are a component of the degree and have credit points attached to them. They will incur a tuition fee.
CAREERS IN ENGINEERING

Build a better world as an Engineer of tomorrow

Engineering is all around us – from the infrastructure of our cities to robotics, green vehicles, recycled water systems, mobile phones and renewable energy. Today, engineers are pioneering solutions to global challenges in the areas of energy, water, food, environment, technology, transport, housing and the ageing population. It’s an exciting time to be an engineer.

CAREER OPPORTUNITIES IN AUSTRALIA AND BEYOND

There are plenty of job opportunities in most areas of engineering, particularly in Australia, but also worldwide. In fact, engineers are highly sought after in China, Nepal and India, just to name a few countries. Our Bachelor of Engineering (Honours) degree is fully accredited by Engineers Australia, which means your degree is recognised around the world under the Washington Accord.

ieagreements.org/Washington-Accord

In Australia: The average job growth over the past 5 years for all occupations is 7%. The following are the job growth rates in engineering fields:

> Engineering Managers - 32.8%
> Civil Engineering Professionals - 10.9%
> Mechanical, Industrial and Production Engineers - 26.2%
> Electrical Engineers - 7.4%
> ICT Business and Systems Analysts - 7.3%, ICT Managers - 60%, ICT Support & Test Engineers - 43.2%
> “Other Engineering Professionals” - 9.6% (includes Biomedical and Environmental Engineers)

For more comprehensive career information check out joboutlook.gov.au

ARE YOU UP FOR ENGINEERING?

To ‘engineer’ literally means to ‘make things happen’. Communication and interpersonal skills are vital to engineers because to ‘make things happen’ engineers need to persuade lots of other people to adopt their ideas and to do much of the work, e.g. building and manufacturing.

Science and mathematics will also be a key part of your degree, since engineers use numerical models to predict system performance. If you haven’t completed these subjects as part of your senior years at high school, UTS has bridging courses in physics, chemistry and mathematics to get you started on a new career path.

Alternatively, you can enrol in the foundation level mathematics subject which will help you prepare for tertiary studies in engineering.

See a list of our bridging courses at uts.ac/science-bridging-courses

HOW MUCH DO ENGINEERS EARN?

According to Graduate Careers Australia, the median starting salary for engineering graduates across Australia is $60,000.

For more information visit graduatecareers.com.au
BACHELOR OF ENGINEERING (HONOURS), DIPLOMA IN PROFESSIONAL ENGINEERING PRACTICE

**KEY INFORMATION**

- **2017 ATAR:** See majors on pages 10-17
- **Duration:** 5 years full-time (part-time available for domestic students)
- **UAC code:** See majors on pages 10-17
- **UTS course code:** C09067
- **CRICOS Code:** 084099M

**Assumed knowledge:** HSC (or international equivalent) English Standard, Mathematics Extension 1 and Physics. English Advanced is recommended. Chemistry is also recommended for the Civil and Environmental major.

**English language requirements:** See page 31

**Bonus points and questionnaire:** See page 32

**How to apply:** See page 31

**Professional recognition:** Accredited by Engineers Australia

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**COURSE DESCRIPTION**

You’ll learn to engage with stakeholders to solve complex human problems and to manage projects using appropriate and emerging technologies. By the time you graduate, you should be comprehensively prepared for a career in the professional practice of engineering.

**ENGINEERING MAJORS**

- General
- Biomedical*
- Civil, including specialisations in Construction and Structures
- Civil and Environmental**
- Data
- Electrical
- Environmental**
- Mechanical
- Mechanical and Mechatronic^
- Mechatronic
- Software

See pages 10-17 for an explanation of these majors.

*Not available with combined degrees, except for Business and Creative Intelligence and Innovation
**This major is currently under review and may be discontinued.
^Not available with combined degrees

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**COMBINING THIS COURSE**

You can combine your degree with Business, Science, Medical Science, International Studies, Law, and Creative Intelligence and Innovation (see pages 18-20) except for double majors: Civil and Environmental, and Mechanical and Mechatronic.

The Diploma in Professional Engineering Practice is not a required element of a combined degree. You do have the option of later adding the Diploma in Professional Engineering Practice with the exception of a combined Law degree, which does not include internships. If you combine your degree with Science, you will also have the option to take on an additional honours year in Science.

International students also have the option of completing the Bachelor of Engineering (Honours) without the Diploma in Professional Engineering Practice. See courses for international students on page 21.

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**COURSE STRUCTURE**

You can change your major to suit your changing interests, even after you have started your degree. If you’re unsure of which major you’d like to pursue, you can begin with the General major. You can then decide which major to specialise in after your first year, or choose to continue on with the General major (more about this major on page 10).

**Core subjects:** are common subjects throughout your course and will give you the skills and knowledge every engineer needs, regardless of your field of practice. Core subjects include:

- Physical Modelling
- Mathematical Modelling 1
- Mathematical Modelling 2
- Engineering Communication
- Design and Innovation Fundamentals
- Engineering Economics and Finance
- Entrepreneurship and Commercialisation
- Engineering Project Management
You’ll learn how to use engineering processes to design, build, troubleshoot and manage projects. Plus, you will develop skills to identify and analyse problems, find creative solutions, and work with other students on technical, problem-based projects that help prepare you for working in a range of engineering roles.

**Engineering internships:** as part of the Diploma in Professional Engineering Practice you will work for an employer(s) of your choice for two periods of 6 months, generally in your second and fourth years.

**Engineering Practice and Work Integrated Learning subjects** help you to get the most out of your internships. You’ll take these subjects before, during and after your two internships.

**Major subjects** give you the essential technical knowledge specific to your major. Major subjects include a Capstone Project, which is an in-depth research study on a topic of your choice. Some students work on their Capstone Project with one of their internship companies, while others work within the Faculty’s research centres.

Your **Capstone Project** is your chance to demonstrate your knowledge, skills and creative thinking, and can potentially lead into a research degree.

**Electives** are subjects you select based on your career interests and the knowledge and skills that you wish to add to your degree. You can choose electives from other engineering disciplines, postgraduate engineering subjects, or take subjects from other UTS faculties. You could also use your electives to study at one of our overseas partner universities as part of UTS: Global Exchange or BUiLD (see page 24).

*If you have chosen a specialisation, some of your electives will be restricted to your field of study. Also, electives are not available in combined degrees and in the Civil and Environmental and Mechanical and Mechatronic double majors.*

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**TYPICAL COURSE STRUCTURE FOR A SINGLE MAJOR**

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For the full list of subjects see the relevant course information at [handbook.uts.edu.au/eng](http://handbook.uts.edu.au/eng)
MAJORS

GENERAL
2017 ATAR: 82.05
UAC Code: 603105

If you’re not sure what you want to specialise in or you’d like to customise your degree by combining several majors, the General major is the one for you. You can select approved major subjects from any of the majors offered, allowing you to explore the areas that interest you.

If you find some areas interest you more than others, you can negotiate to specialise. This means you can effectively start your degree with this major and then transfer to one of the other majors after your first year. Alternatively, if you have had some experience of engineering and you see a particular niche that covers two or more majors, you can negotiate your own specialist area of study.

CAREER OPTIONS
Your technical, analytical and practical engineering skills, along with your logical thinking will become your graduate attributes. Add to this an ability to identify problems, focus on solutions, work in teams and manage projects and people, and you’ll be sought after in a wide range of areas once you graduate. Career opportunities include:

> state and federal government agencies such as Transport for NSW or local councils
> water and catchment authorities
> development contractors and consultancies
> rail and road operators and their construction contractors
> banks and financial institutions
> planning, research and regulatory bodies
> research institutions such as the CSIRO
> energy companies such as TransGrid
> defence agencies and their contractors
> vehicle, train and aircraft manufacturers and their contractors
> private engineering consultancies

BIOMEDICAL
2017 ATAR: 89.00
UAC Code: 603130

Biomedical engineers design and develop medical-related products and systems. They work towards the enhancement of health and improving the quality of life. Many of them work in major hospitals in selecting, operating and maintaining the very complex engineering infrastructure in our hospitals.

You’ll learn the basics of biology, information technology, and electrical and mechanical engineering. You will also be able to select subjects based on your particular interest such as biomedical instrumentation, bioinformatics, biomechatronics, neuroscience, and biomedical applications of artificial intelligence. You’ll become proficient in working with other engineers, IT professionals, medical staff and researchers thanks to this multidisciplinary field.

CAREER OPTIONS
You will be able to work as a biomedical engineer in the biomedical and health industries, and find opportunities with:

> bioinstrumentation and biomedical device companies
> biotechnology and biomechanics manufacturing companies
> medical research centres or hospitals in Australia or abroad
> medical imaging You’re also likely to work closely with electrical, mechatronic and ICT engineers, and will find opportunities in many of the areas suggested for those majors.
“I actually started uni doing civil engineering, so I did it for a year and then decided concrete was not for me,” says Kate DeWick, a second-year biomedical engineering student.

“By then, I had a better idea of all the engineering majors, and I decided that I really loved bio and chemistry, so I switched to biomedical engineering instead.”

Kate was initially drawn to UTS for its central location and strong reputation for engineering, but she says the one-year diploma in engineering practice, in which students undertake two six-month internships, was also a deciding factor.

“You come out of your degree with a year of work experience – I think that’s really important when your employers are looking for people and they know you’ve worked in the industry already,” she says.

The switch to a biomedical major has given Kate a new career focus: specifically, an interest in rehabilitation engineering. She can see two distinct career paths – developing new rehabilitation technologies, like prosthetic limbs, or working with patients to help them learn to use them.

“I think to really make the most impact, you’d have to know about both. Ultimately, I like to work with people more one-on-one, so I’d probably be more inclined to help them through the process of learning how to use the technologies,” she says.

While she’s yet to complete the internship component of her degree, she’s already targeting medical device companies and hospitals as a way of building her skills in both areas. But beyond the more practical aspects of her work, Kate believes strongly in the idea that her work will change people’s lives.

“Ever since I was young, that’s all I wanted to do – I just wanted to help the world. But it’s about finding your own way to do that through something that you love,” she says.

Read more student profiles uts.edu.au/eng-student-profiles
MAJORS (cont)

CIVIL

2017 ATAR: 87.90
UAC Code: 603015

Civil engineers plan, design, construct and maintain the infrastructure of our cities and the country more broadly. These include buildings, stadiums, roads, bridges, tunnels, railways, mines, dams, water supply, wastewater treatment as well as the physical infrastructure of electrical and telecommunication systems. Civil engineers work in office-based jobs in planning, consulting or design as well as outside on construction sites, managing and supervising projects.

You’ll learn all the key skills you need to become a professional civil engineer, plus skills in construction, project management, design and surveying. You’ll learn about the properties and use of concrete, steel, timber and soil, plus the physics and mechanics of large and small structures. You will also gain expertise in water supply systems, flood protection, sanitation, hydraulics and waste disposal.

CAREER OPTIONS

You can work in any of the areas suggested for the General major, plus find opportunities with:

> major development and design firms such as Aurecon, Brookfield Multiplex, Lend Lease, Mirvac, Arup or Landcom

> government agencies and their contractors

> local councils

> local and suburban engineering consultancies specialising in private, residential or commercial developments, water and flood management, road and rail infrastructure, or project management

DARREN D’SOUZA

Bachelor of Engineering (Civil), Diploma in Professional Engineering Practice

Choosing UTS was a straightforward process for Darren D’Souza, a final-year student whose fascination with infrastructure led him straight to a civil engineering degree.

Darren was drawn to the practice orientation of the engineering course; specifically, the industry focus of the one-year Diploma in Engineering Practice.

An internship with Gosford City Council’s road safety and traffic team, followed by an engineering design placement with Willoughby City Council, gave Darren the opportunity to cut his teeth on real-world engineering problems.

“I just felt I needed that experience – that it would be really helpful to me once I graduated and looked for a job,” he says. And he was right – he’s secured a two-year graduate position in the transport planning section of GHD, and is due to start early next year. It’s an accomplishment that he credits, in large part, to his time at UTS.

“Aside from giving me all the technical knowledge and the theoretical knowledge, I believe UTS has given me the practical knowledge I need as well, such as the professional skills that you use in a workplace, the work ethic, and the ability to relate theory to practice,” he says.

Read more student profiles uts.edu.au/eng-student-profiles
Civil construction engineers specialise in the construction of large projects such as high-rise apartments or office blocks. They require high-level skills in scheduling and the management of subcontractors. You’ll learn all the key skills you need to become a professional civil engineer, plus an understanding of human resources, finance and environmental planning and law. This includes development applications and environmental impact assessments. With cross-faculty subjects, you’ll also learn the details of building services such as lifts, air conditioning, cabling, IT and telecommunications.

CAREER OPTIONS
You can work in any of the areas suggested for the Civil major, plus find opportunities with:
> major developers
> private commercial developers and consultancies

This specialisation is also ideal if you want to work as a private developer or consultant, as you’ll have all the skills you need to run an entire construction project from start to finish.

Civil structures engineers specialise in the analysis and design of structures, ranging from small to large complex ones, such as Sydney Tower, Sydney Harbour Bridge and Sydney Opera House. They are proficient in the advanced design and modelling techniques needed to design efficient, long-lasting structures and to understand the traditional and advanced materials available for their construction. You’ll learn all the key skills you need to become a professional civil engineer, plus an advanced understanding of the behaviour of structures under stresses due to extreme weather, earthquakes or explosions. You’ll also develop skills in assessing structural damage. This includes practical expertise in assessing and improving the safety of older structures that might be subject to loads and conditions they weren’t originally designed to withstand. You will use leading-edge computer software to model, analyse and design structures.

CAREER OPTIONS
You can work in any of the areas suggested for the Civil major, plus find opportunities with:
> major commercial developers
> government agencies and their contractors
> engineering consultancies, particularly those that specialise in designing and building large structures or assessing existing structures

JULIA YEO
Bachelor of Engineering (Civil), Diploma in Professional Engineering Practice
As someone who describes herself as creative, Julia Yeo was surprised to find herself in an engineering degree. She originally planned to study architecture, but a surprising love of physics intervened. “I thought, why design the building when I can physically build it?” she says. Now in her third year at UTS, Julia has been surprised by how well her skills fit with an engineering degree – and with a prospective future career as a construction project manager.

During a recent internship with SRG Limited, Julia found herself standing on the 22nd floor of a partially constructed building, looking out at a breathtaking view. “It was five o’clock in the afternoon, so the sun was starting to set. I thought, could you imagine being on this for the whole day – just managing this project, watching it from demolition to development?” she says.

“I like getting things done and I like telling people what to do, and I thought there’s no better way of doing that than becoming a project manager – managing other people, managing these giant construction projects – it’s just incredible seeing it from start to finish.”

Read more student profiles uts.edu.au/eng-student-profiles
Maria Doumit is an environmental engineer with Aecom, a multinational engineering firm. “Before a project is approved, my role is to assess the impacts that project might have on the environment, and how we can mitigate or prevent any significant impacts,” she says.

As a recent UTS graduate, Maria found herself at Aecom largely on the strength of the professional experience she acquired during her Bachelor of Engineering. “We had to do a six-month internship as part of the UTS course, and I got placed at Blacktown Council. That internship got me a full-time position,” she says. “I ended up staying at the council for two-and-a-half years while studying, and so that really helped me develop professionally.”

As a student asset management engineer for the council, Maria was involved in managing city assets like roads and stormwater drainage, and registering new assets that were the result of ongoing development in the Blacktown area. She also contributed to a works improvement program, and gained extensive knowledge of the tendering process.

The professional experience was key to landing her current job, where she has already worked on projects for high profile clients like Sydney Trains and the Roads and Maritime Services. Read more student profiles uts.edu.au/eng-student-profiles

**MAJORS (cont)**

**CIVIL AND ENVIRONMENTAL**

**2017 ATAR:** 87.30  
**UAC Code:** 603005

Civil and environmental engineers are experts in assessing environmental impact of and design of green buildings, transport, waste and other engineered systems. They specialise in efficient use of energy, protecting soil and water from contamination and design waste, pollution control and resource recovery systems. They are involved in impact assessment, treatment of contaminated sites, and management and design concepts across engineering disciplines.

You’ll learn all the key skills you need to become a professional engineer so that you can help determine technically sound solutions to the growing environmental concerns due to human activity. You’ll also gain expertise in biotechnology, environmental analysis, ecology and physico-chemical processes, plus an understanding of the social, political and legal aspects of environmental planning and management. You’ll learn to design environmentally sustainable strategies and develop solutions for environmental topics including air, water, soil, noise, climate change and energy in your community.

**CAREER OPTIONS**

You can work in any of the areas suggested for the General major, plus find opportunities with:

- environmental consultants
- water, waste, soil and energy industries
- local councils and government agencies
- catchment management authorities
- international development organisations
- non-government organisations such as the Australian Conservation Foundation or Greenpeace

**ENVIRONMENTAL**

**2017 ATAR:** 87.00  
**UAC Code:** 603010

Environmental engineers are experts in environment protection and management, water and air pollution control and waste management. As an environmental engineer, you may also specialise in green materials and buildings, renewable energy, the assessment of environmental impact and sustainability, transport and environmental interactions, treatment of contaminated sites, as well as systems design, construction and operation.

You’ll learn all the key skills you need to become a professional engineer so that you can help determine technically sound solutions to the growing environmental concerns due to human activity. You’ll also gain expertise in biotechnology, environmental analysis, ecology and physico-chemical processes, plus an understanding of the sociocultural, political and legal aspects of environmental planning and management. You’ll learn to develop environmentally sustainable strategies and management plans, and deliver solutions that benefit society and the environment.

**CAREER OPTIONS**

You can work in any of the areas suggested for the General major, plus find opportunities with:

- environmental consultants
- water, waste, soil and energy industries
- local councils and government agencies
- catchment management authorities
- international development organisations

* This major is currently under review and may be discontinued.
ELECTRICAL

2017 ATAR: 86.05
UAC Code: 603035

Electrical engineers deal with the generation and application of electricity, from small circuits to high-voltage power generation and supply networks. With traditional power generation at the centre of global warming issues, electrical engineers are now at the forefront of developing renewable energy systems and superefficient electrical devices that aim to reduce our energy demands.

You’ll learn about circuits, electronic design, microprocessors, power generation, analogue and digital intelligent control (such as on-board computers in cars, aircraft or trains), ‘fuzzy logic’ systems, and instrumentation (such as digital temperature and pressure gauges). You’ll graduate with practical skills in hardware and software that enable you to design and build electronics systems.

CAREER OPTIONS

You can work in any of the areas suggested for the General major, plus find opportunities with:

> car, aircraft and train manufacturers
> defence agencies and military hardware manufacturers
> energy companies, including sustainable energy providers
> biomedical and health engineering companies > electronic component manufacturers for consumer products such as mobiles, PDAs or household appliances

You’re also likely to work closely with mechanical, mechatronic and ICT engineers, and will find opportunities in many of the areas suggested for those majors.

MD INTISARUL HOQUE
Bachelor of Engineering (Electrical), Diploma in Professional Engineering Practice

For Md Intisarul Hoque, better known as Inti, deciding what to study at uni was a bit of a stab in the dark.

“I guess it all started like it did for everyone else in year 12 – you have to make a decision as to what you want to do for the rest of your life, and you don’t have much to go off,” he says.

Having excelled at maths and science during high school, as well as more technical subjects like woodwork, design tech and engineering studies, Inti figured that an engineering degree would let him apply his knowledge in a range of different ways.

“I chose electrical engineering because it’s really broad,” says Inti, who received a Co-op Scholarship in his first year at uni.

“You can get into mechanical engineering and do automation, or race cars, or you can get into planes, or you can get into small scale electronics, like laptops or mobile phones.”

Five years later and in the final year his degree, Inti’s UTS has experience has helped him focus his engineering interests – and given him a much clearer idea of where his career is going.

“I want to get into renewable energy generation, because that’s kind of where the industry is heading,” he says.

Read more student profiles uts.edu.au/eng-student-profiles
“There really won’t be enough data engineers out there, so I think the opportunities are going to be fairly limitless, the idea of being able to deal with data as a whole is going to be extremely important I think going forward. It’s already important now, and I think it’ll become much more important as time goes on, so I think there’ll be vast opportunities for those who come out with that degree.”

GREG ELLIS
Executive Director Ticketing & Concession
Transport NSW
MECHANICAL
2017 ATAR: 87.60
UAC Code: 603055
Mechanical engineers work with moving things and systems. They design, build and maintain anything that moves – from engines and other parts that move planes, trains and automobiles, to heavy industrial machinery, biomedical devices, space vehicles, wind turbines and other power generation equipment.
You’ll study dynamics and learn to calculate and control the movement and interaction of solid objects, fluids, heat and power. You’ll also study some electrical engineering subjects and will apply your learning through hands-on projects that help you build the confidence and ingenuity needed to push the boundaries of machine-based technology.
CAREER OPTIONS
You can work in any of the areas suggested for the General major, plus find opportunities with:
> aerospace companies
> defence agencies
> automotive companies
> biomedical and health companies
You’re also likely to work closely with electrical, mechatronic and ICT engineers, and will find opportunities in many of the areas suggested for those majors.

MECHATRONIC
2017 ATAR: 87.10
UAC Code: 603120
Mechatronic engineers work with moving things and the advanced electronics that drive them. They use a combination of mechanical, electronics, computer systems and software engineering to design and build mechanical systems and their controllers, software and hardware, plus electronic processes and the networks that link them.
You’ll study dynamics (the science of moving things) and learn to calculate and control the movement and interaction of solid objects and electricity. You’ll also learn to design, build and manage automated and autonomous mechanical systems, with an emphasis on robots, smart machines, intelligent control systems, and biomedical devices.
CAREER OPTIONS
You can work in any of the areas suggested for the General major, plus find opportunities with:
> advanced machinery and robotics manufacturers
> manufacturing and mining industries
> research groups in nanotechnology, robotics and other developing fields
You’re also likely to work closely with electrical, mechanical and ICT engineers, and will find opportunities in many of the areas suggested for those majors.

MECHANICAL AND MECHATRONIC
2017 ATAR: 89.15
UAC Code: 603115
This major brings together mechanical and mechatronic engineering subjects so that you gain an understanding of both specialisations.
You’ll study dynamics (the science of moving things) and learn to calculate and control the movement and interaction of solid objects, fluids, heat and electricity. You will also learn to design, build and manage automated and autonomous mechanical systems, with an emphasis on robots, smart machines, intelligent control systems, and biomedical devices.
CAREER OPTIONS
You can work in any of the areas suggested for the Mechanical and Mechatronic majors.

AARON DI NOIA
Bachelor of Engineering (Mechanical and Mechatronic), Diploma in Professional Engineering Practice
A future as an inventor is what’s driving mechanical and mechatronic engineering student Aaron Dinoia to succeed.
“I chose this major because I’m interested in design innovation. I really wanted to find a course that really gave me a solid understanding of engineering across all discipline, not just one focus,” he says.
Now in his third year, Aaron has completed an internship with Ramp RFID, a company specialising in asset, vehicle and people tracking using radio-frequency identification. He’s also been involved in a number of robotics projects.
“In one subject, we had to program a robot to search through a maze and find infrared beacons, so it’s sort of modelling a search and rescue context,” he says.
“In another, we actually had to build a robot and move it from one platform to another across a ravine, using only a pipe to get across.”
All these experiences are helping Aaron build the skills he needs for his future career.
“Mechanical engineering and mechatronics really spans civil, mechanical, electrical, ICT – it’s really got a broad range. You can draw on all those things together to create a new design and build a new product.”
Read more student profiles
www.uts.edu.au/eng-student-profiles
COMBINED COURSES

BACHELOR OF ENGINEERING (HONOURS), BACHELOR OF SCIENCE

With a combined engineering and science degree, you’ll gain the technological expertise to determine scientific problems plus the practical engineering skills needed to implement effective solutions. Add to this cutting-edge practical laboratory skills as well as an understanding of intellectual property and the ethical issues related to science research.

You’ll need to choose a single engineering major for the Bachelor of Engineering (Honours) and a single science major for the Bachelor of Science.

Areas in which you can develop skills include DNA-centred technologies and applications, microbiology and biochemistry, therapeutic products (such as vaccines and drugs), scientific research and analysis, energy and resource exploration, urban ecology, and environmental biotechnology and sustainability.

ENGINEERING MAJORS
General, Civil, Data, Electrical, Environmental, Mechanical, Mechatronic, Software

SCIENCE MAJORS
Applied Chemistry, Applied Physics, Biomedical Science, Biotechnology, Environmental Science, Mathematics, Medical Science, Nanotechnology

CAREER OPTIONS
You can work in any of the areas suggested for your chosen engineering major, plus find opportunities in:
> medical technology and instrumentation
> biotechnology and bioengineering
> nanotechnology and molecular biology
> mining, agriculture and fisheries
> environmental science
> food and drink, product design, pest control or pharmaceuticals

BACHELOR OF ENGINEERING (HONOURS), BACHELOR OF MEDICAL SCIENCE

With a combined engineering and medical science degree, you’ll not only develop professional engineering skills via your chosen engineering major, you’ll also gain an in-depth understanding of medical science. In the medical science side of your degree, you will explore the fields of chemistry, biology, anatomy, biochemistry, microbiology, physiology, neuroscience, pharmacology and medical devices. If you’re interested in medical science, the scientific basis of engineering and technology, and the technology itself, then this course is for you.

As well as your engineering major, you’ll need to complete 13 core Medical Science subjects. For the full list of subjects see the relevant course information at handbook.uts.edu.au/eng

ENGINEERING MAJORS
General, Civil, Data, Electrical, Environmental, Mechanical, Mechatronic, Software

CAREER OPTIONS
See Bachelor of Engineering (Honours), Bachelor of Science above.
**BACHELOR OF ENGINEERING (HONOURS), BACHELOR OF ARTS IN INTERNATIONAL STUDIES**

With a combined engineering and international studies degree, you'll not only develop professional engineering skills from your chosen engineering major, you'll also open up a whole world of opportunities. The international studies component of this course gives you the rare chance to immerse yourself in another language and culture, develop an international perspective on your studies, and broaden your thinking. The international studies component of your degree also involves a year abroad in one of the 14 countries that you can choose to study in the degree.

**ENGINEERING MAJORS**
- General, Civil, Data, Electrical, Environmental, Mechanical, Mechatronic, Software

**COUNTRIES**
- Argentina, Canada, Chile, China, Colombia, Costa Rica, France, Germany, Italy, Japan, Latino USA, Mexico, Spain, Switzerland

**CAREER OPTIONS**
You can work in any of the areas suggested for your chosen engineering major, within Australia or in another country. Engineering is an international discipline, and bilingual, global-thinking engineers are able to problem-solve anywhere they're needed.

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**BACHELOR OF ENGINEERING SCIENCE^, BACHELOR OF LAWS**

With a combined engineering science and law degree, you'll gain a blend of technical knowledge and legal skills, enabling you to become a legal practitioner in New South Wales.

As well as the engineering skills you’ll develop via your chosen engineering major, you’ll gain an overview of the legal system, technology legislation, technology-specific criminal law, contract law and environmental law.

If you wish to obtain full recognition as a graduate lawyer, you have the option of completing the Practical Legal Training Program. With a year of further study, you also have the option of graduating as a professional engineer.

**ENGINEERING MAJORS**
- General, Civil, Data, Electrical, Environmental, Mechanical, Mechatronic, Software
  *Not accredited by Engineers Australia

**CAREER OPTIONS**
You can work in any of the areas suggested for your chosen engineering major, plus find opportunities as:
- legal advisor
- manager or consultant

You can work in engineering, law firms, or both. Law firms need lawyers with technical expertise and the engineering industry needs technical specialists with legal knowledge. Demand for these skills is high. In fact, this combined course was developed in response to this demand.
CAREER OPTIONS
You can work in any of the areas suggested for your chosen Engineering major, plus find opportunities in:
> banking
> accounting and economics
> marketing
> any commercial or business sector
You’ll be particularly sought after by manufacturing businesses. Your engineering skills will enable you to understand and develop products. Your business skills will ensure the product is financed, developed to meet consumer needs and marketed effectively.

You’ll also be ideally suited to the financial sector, running your own engineering business, or senior management in an engineering setting.

ENGINEERING MAJORS
General, Biomedical, Civil, Data, Electrical, Environmental, Mechanical, Mechatronic, Software

BUSINESS MAJORS

BACHELOR OF ENGINEERING (HONOURS), BACHELOR OF BUSINESS

With a combined engineering and business degree, you’ll develop the ability to succeed in both engineering and business environments.

As well as the professional engineering skills you’ll develop in your chosen engineering major, you’ll gain valuable and highly sought-after business skills from your business major. You’ll graduate with the ability to use your engineering problem solving skills in relation to people management, business management, finance, marketing or international business.

ENGINEERING MAJORS
General, Biomedical, Civil, Data, Electrical, Environmental, Mechanical, Mechatronic, Software

BUSINESS MAJORS

BACHELOR OF ENGINEERING (HONOURS), BACHELOR OF CREATIVE INTELLIGENCE AND INNOVATION

With a combined engineering and creative intelligence and innovation degree, you’ll gain a blend of technical knowledge underpinned by a philosophy of innovation and creativity that will help you turn ideas into reality. The creative intelligence competencies you’ll pick up should enable you to navigate a rapidly accelerating world of change.

As well as the professional engineering skills you’ll develop via your chosen engineering major, you’ll gain proficient skills in critical, inventive and creative thinking, future scenario building, business analysis, entrepreneurship, problem solving, teamwork and communication. You’ll also develop the ability to work on your own, as well as across and between other disciplines.

ENGINEERING MAJORS
General, Biomedical, Civil, Data, Electrical, Environmental, Mechanical, Mechatronic, Software

CAREER OPTIONS
You can work in any of the areas suggested for your chosen engineering major and will be well-suited for a career within a fast-paced, innovative engineering environment.

Your double degree will equip you with skills that are particularly useful for positions involving product planning, strategy and design within a solutions focused environment. These skills can also be used to start and market your own business.
ADD TO YOUR DEGREE

KEY INFORMATION
Direct entry open to international students only
Duration: 4 years (full-time only)
UTS course code: C09066
CRICOS code: 084098A
English language requirements: See page 31
How to Apply: See page 31
Professional Recognition: Accredited by Engineers Australia

FUTURE PROOF YOUR DEGREE: ADD ON THE DIPLOMA IN INNOVATION

Want to explore more about innovation and entrepreneurship? Want to explore your creative side? Want to complement your studies by developing your creative intelligence and innovation skills?
Taking a transdisciplinary approach the new Diploma in Innovation engages students with open, complex and networked problems, and in doing so develops students’ capacity for complex systems thinking, creating value in problem solving and inquiry, imaginative and ethical citizenship and entrepreneurial/intrapreneurial skills. The Diploma can only be undertaken in conjunction with an undergraduate bachelor’s degree (excluding the BTi or BCII); it consists of intensive courses in winter and summer schools that allow students to experience transdisciplinary innovation practices without extending their course duration.

DIPLOMA IN LANGUAGES
Add the Diploma in Languages and study alongside your degree for the opportunity to learn about another language and its corresponding culture and society.
This Diploma adds an international perspective to your professional UTS degree and can lead to globalised work opportunities. Any domestic student enrolled in UTS undergraduate coursework degree is eligible to apply to UTS directly.

KEY INFORMATION
Direct entry open to international students only
Duration: 3 years (full-time only)
UTS course code: C10066
CRICOS code: 033909D
English language requirements: See page 31
How to Apply: See page 31

BACHELOR OF ENGINEERING (HONOURS)
If you’re an international student, you have the option of completing the Bachelor of Engineering (Honours) with or without the Diploma in Professional Engineering Practice (see pages 8 for details). Should you choose to enrol in the course without the Diploma, you’ll still obtain the necessary exposure to professional engineering life with at least 12 weeks’ work experience, preferably outside the university environment.

BACHELOR OF ENGINEERING SCIENCE
If you’re an international student looking for technologist-level studies, this course is for you. You won’t receive professional engineering status, but you will gain graduate attributes similar to those gained in the Bachelor of Engineering (Honours). These will allow you to work with professional engineers.

ENGINEERING MAJORS
General, Civil, Data, Electrical, Environmental, Mechanical, Mechatronic, Software
^ Not accredited by Engineers Australia

ADDITIONAL COURSES FOR INTERNATIONAL STUDENTS
You will also complete the Engineering Practice Preparation and Engineering Practice Reflection subjects to fulfil the professional practice component of the course.
You’ll also have the chance to specialise with an engineering major. See the full list of engineering majors on pages 10-17.
ASHWINI RANJITHABALAN
Graduate, Bachelor of Engineering (Civil and Environmental)
Winner: Engineers Australia Women in Engineering Scholarship

“I chose to major in Civil and Environmental Engineering – civil because I really liked infrastructure, and environmental because I think it’s important to consider not just what you’re building but how it impacts the environment,” says Ashwini Ranjithabalan, a graduate of the UTS Bachelor of Engineering.

Now a graduate engineer at WSP Parsons Brinkerhoff, Ashwini undertook two internships with construction company John Holland over the course of her degree. She worked as an environmental coordinator during one internship, and a design manager in the other – two distinctly different roles that dramatically expanded her knowledge of the engineering world.

“UTS is very practice-based so when I learnt something in the classroom, I was able to apply it to my internship, and vice versa. It’s a real-world-based degree, which I like,” she says.

“Walking out of university, I’d had more of a year of experience in the industry – that helped tremendously when it came to getting my current job.”

Beyond her studies, Ashwini was heavily involved with the UTS Women in Engineering and IT (WiEIT) program, which engages and supports young women undertaking technical degrees.

She initially joined WiEIT as a way of meeting other young women in her field – “there’s not many in engineering, and I went to an all-girls school, so when I came to engineering I was like ‘whoa! There’s a lot of guys here!” she says – but quickly found herself involved in the Lucy Mentoring Program and a range of WiEIT outreach initiatives.

“It’s important to get more women in the industry. The things I’m doing and a lot of other engineers are doing is developing how the future looks. If we have more women in engineering, we’ll get more of a diverse output that truly represents the community,” she says.

Read more student profiles uts.edu.au/eng-student-profiles
UNIVERSITY LIFE

Making friends and pursuing new interests are some of the most rewarding experiences university has to offer. UTS has over 100 clubs and societies on campus, along with bars, cafés and a range of sporting facilities. To ensure you feel confident and supported, we offer help with housing, money, making friends, health, cultural issues and career development.

ENGINEERS WITHOUT BORDERS
Build your leadership and sustainability skills, and apply theory to humanitarian engineering projects. Opportunities include doing an internship overseas or participating in an overseas volunteering experience through UTS BUiLD. uts.ac/ewb-utshapter

UTS: MOTORSPORTS
Showcase your ingenuity by building and racing an open-wheel race car. The motorsports club has represented UTS in the Formula SAE Australasia competition for 10 years, and raced an electric car in the event for the first time in 2015. utsmotorsports.com

UTS ROBOTICS SOCIETY
Discover everything robotics, from servos to software, and connect with likeminded students. Gain access to equipment, participate in robot building competitions, and receive support from industry. You can learn new skills, get help with projects or simply meet like-minded students in a social and engaging environment. With projects ranging from fully autonomous robotic systems to candy dispensers, they provide you with the opportunity to combine creativity and technology to form new ways of interacting with the world around us. utsroboticsociety.org

UTS ENGINEERING SOCIETY
Hang out with your cohort and get involved in social events, industry events and networking opportunities with one of the largest clubs on campus. engsoc.com.au

We encourage you to check out the full list of clubs and societies at: activateuts.com.au/social/clubs

Check out the full list of programs and events at uts.edu.au/currentstudents/university-life

UTS: GLOBAL EXCHANGE*
Study overseas at a UTS partner university. Most of our partners teach engineering courses in English, but you can also study the local language. uts.ac/UTSExchange
*Some international students might not be eligible to participate in this program. International students cannot go on exchange in their home country.

UTS BUiLD
Beyond UTS International Leadership Development (BUiLD) provides opportunities to build leadership potential. BUiLD takes you beyond your degree, providing the chance to explore social enterprise, sustainability and social justice. With BUiLD you can participate in overseas volunteering, with most programs including a travel grant. On completion, the BUiLD program will appear on your Australian Higher Education Graduation Statement (AHEGS). uts.ac/UTSBUILD

HELPS
Higher Education Language and Presentation Support (HELPS) provides non-credited English language and academic literacy support to UTS students. Enhance your learning experience with individual and group support in a friendly and respectful environment. uts.ac/HELPSProgram
“The UTS Motorsports Society has given me the opportunity to both experience all the fun & social aspects of Uni life, while also practically applying myself in real life engineering situations.

I personally love the competitive nature of a lot of the members, from the end of trimester go-karting event, to the racing simulator competition, I always know that there an opportunity to have a good time and talk to people with common interests.

I have also taken advantage of the option to move into the UTS Motorsports Team, the opportunity to build a race car every year and practically apply the skills I learn through my degree is an opportunity that I could not miss.

Chris Weston
Member, Motorsports Society

JACOB VARTANIAN
Bachelor of Engineering, (Mechanical & Mechatronic), Diploma in Professional Engineering Practice
President, Robotics Society

“When I first joined I didn’t have a strong knowledge in robotics. I had an understanding of computer programming in high school but that had its limitations, you didn’t have a real life product. At the Robotics Society we can give you an introduction to the field of robotics, provide you with the equipment and resources needed to design and build these robots and importantly introduce you to like-minded people. You have the chance to convert your imagination into a real thing which you can see and interact with!”

Read more about RoboSoc
utsroboticsociety.org
# SCHOLARSHIPS

UTS offers a large range of scholarships to commencing and current students to support career aspirations in Engineering and Information Technology.

For information on all scholarships and how to apply, please visit: uts.edu.au/scholarships

### FOR COMMENCING STUDENTS (DOMESTIC)

<table>
<thead>
<tr>
<th>SCHOLARSHIP NAME</th>
<th>AWARDED TO</th>
<th>STUDENT TYPE</th>
<th>COURSE TYPE</th>
<th>BENEFIT</th>
<th>DURATION</th>
<th>ATAR</th>
<th>OTHER</th>
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<tbody>
<tr>
<td>DEAN’S MERIT SCHOLARSHIP - ENGINEERING &amp; INFORMATION TECHNOLOGY</td>
<td>High achieving commencing students with the top ATAR enrolled in a UTS Faculty of Engineering &amp; Information Technology undergraduate degree. More than one available.</td>
<td>Commencing</td>
<td>UG</td>
<td>$10,000 per year</td>
<td>2 years</td>
<td>95+</td>
<td>Merit</td>
</tr>
<tr>
<td>INDUSTRY BASED SCHOLARSHIPS - ENGINEERING</td>
<td>High performing commencing students. UTS Engineering has a range of Industry Sponsored Scholarships offered across all disciplines. They provide a gateway to industry contacts and work placement opportunities during your studies. Financial support and duration vary. Please check the UTS website for eligibility, application dates and benefits.</td>
<td>Commencing</td>
<td>UG</td>
<td>$5,000 to $9,000</td>
<td>1 year</td>
<td>85+</td>
<td>Merit and 4 week placement opportunity</td>
</tr>
<tr>
<td>DOWNER RAIL SCHOLARSHIP FOR WOMEN IN ENGINEERING</td>
<td>Commencing female students who have applied for the 5-year Bachelor of Engineering (Hons) Diploma in Professional Engineering Practice with a major in Electrical, Mechanical or Mechatronic Engineering.</td>
<td>Commencing</td>
<td>UG</td>
<td>$14,000 + 10 wk unpaid internship</td>
<td>1 year</td>
<td>80+</td>
<td>Preferred</td>
</tr>
<tr>
<td>WESTPAC BICENTENNIAL FOUNDATION YOUNG TECHNOLOGISTS SCHOLARSHIP</td>
<td>High achieving school leavers with a passion to bring about change through cutting-edge technology and innovation. Students must be enrolled in Bachelor of Engineering (Hons), with a major in Software or Data Engineering. Preference is given to students with financial and/or educational disadvantage(s).</td>
<td>Commencing</td>
<td>UG</td>
<td>$5,000 per year</td>
<td>4 or 5 years</td>
<td>80+</td>
<td>Merit Preferred</td>
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<tr>
<td>LINDEN LITTLE ENGINEERING EQUITY SCHOLARSHIP</td>
<td>Current school leavers experiencing financial need and other educational disadvantage which can make it difficult to access and succeed in tertiary education. Available to commencing students in the Bachelor of Engineering (Honours), Diploma in Professional Engineering Practice in any major.</td>
<td>Current</td>
<td>UG</td>
<td>$14,000 per year</td>
<td>2 years</td>
<td>80+</td>
<td>Equity</td>
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<td>Student Type</td>
<td>Course Type</td>
<td>Benefit</td>
<td>Duration</td>
<td>ATAR</td>
<td>Other</td>
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<td>The Eleanor Dunn Scholarship in Engineering</td>
<td>Applicants who have the personal potential and commitment to study Electrical, Mechanical, Mechatronic, Software or Data Engineering – major/ double major, and are from a financially disadvantaged background or experiencing other educational barriers.</td>
<td>Commencing</td>
<td>UG</td>
<td>$5,000 per year</td>
<td>5 years</td>
<td></td>
<td>Equity</td>
</tr>
<tr>
<td>WJ &amp; LM Sinclair Scholarship in Engineering</td>
<td>Applicants who have the personal potential and commitment to study engineering, are of Aboriginal or Torres Strait Islander descent and/or are from financially disadvantaged background. Up to two student scholarships may be offered enrolled in any major of Bachelor of Engineering (Honours), Diploma in Professional Engineering Practice.</td>
<td>Commencing</td>
<td>UG</td>
<td>$10,000-$20,000 per year</td>
<td>5 years</td>
<td>69+ or 80+</td>
<td>Equity</td>
</tr>
<tr>
<td>Women in Engineering Equity Scholarship</td>
<td>Students commencing in any major of the Bachelor of Engineering (Honours), Diploma in Professional Engineering Practice. Preference is given to applicants experiencing financial and/or other educational barriers. It is also open to non-current school leavers.</td>
<td>Commencing</td>
<td>UG</td>
<td>$14,000</td>
<td>1 year</td>
<td>80+</td>
<td>Preferred</td>
</tr>
<tr>
<td>Intech Credit Union Scholarship in Information Technology</td>
<td>Students commencing specific undergraduate degrees in Information Technology or Engineering (Software or Data) degrees. It is also open to non-current school leavers.</td>
<td>Commencing</td>
<td>UG</td>
<td>$5,000</td>
<td>1 year</td>
<td>80+</td>
<td>Equity</td>
</tr>
<tr>
<td>Richard Crookes Construction Elite Athlete Scholarship</td>
<td>Elite and emerging UTS athletes in a field of study relevant to the construction business. In addition, the recipient will be invited to undertake a paid work placement opportunity at Richard Crookes Construction.</td>
<td>Both</td>
<td>UG &amp; PG</td>
<td>$20,000 + Work Placement</td>
<td>1 year</td>
<td></td>
<td>Athlete, work placement</td>
</tr>
</tbody>
</table>
SCHOLARSHIPS (cont)

UTS offers many more industry sponsored scholarships with work placements for current students including:
Adelaide Brighton, Bouygues Construction, Ericsson, Juniper Networks, NSW Government – DAC, Richard Crookes, Toshiba, Thales, Western Earthmoving, WMA Water and more!

Please visit uts.edu.au/scholarships to see all scholarships offered at UTS Engineering and IT.

1. ATAR score excludes bonus points.
2. Please refer to the Conditions of Award to confirm the Equity eligibility criteria for each applicable scholarship.
3. Co-op scholarships combine opportunities for practical work experience with sponsor organisations, in addition to financial support.
4. Application deadlines vary, with some scholarships for commencing students closing as early as June in the year before the study commences. Ensure you check the UTS website for closing dates.

SCHOLARSHIPS FOR INTERNATIONAL STUDENTS
ENGINEERING INTERNATIONAL UNDERGRADUATE EXCELLENCE SCHOLARSHIP

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<tr>
<th>About</th>
<th>Value</th>
<th>Application deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two scholarships per year are awarded to high achieving international students commencing the Bachelor of Engineering (Honours) or Bachelor of Engineering (Honours), Diploma in Professional Engineering Practice.</td>
<td>35% contribution to tuition fees for one session of full-time study</td>
<td>For further information including eligibility criteria and application deadlines, please check online.</td>
</tr>
</tbody>
</table>

UNIVERSITY-WIDE SCHOLARSHIPS

UTS offers a range of scholarships to high achieving students and to assist students in need of financial assistance. Check online for more details.
Fees, Scholarships & Financial Assistance

TUITION FEES
Most domestic students will be studying in a Commonwealth Supported Place which means the Australian Government makes a contribution to the cost of your study while you pay a student contribution. If eligible, you can elect to pay your student contribution upfront or defer payment of your student contribution using HECS-HELP visit fees.uts.edu.au for more info.

For information on fees for international students visit uts.edu.au/international. Note, this guide is not intended for international students.

SCHOLARSHIPS
UTS is proud to award a large number of scholarships to its students every year. Through providing scholarships, the university endeavours to reward achievement and recognise motivation to succeed.

UTS is also committed to providing support to students experiencing financial hardship and/or other educational disadvantages. See page 26 for Scholarship specific to the Faculty of Engineering and IT.

For information on all scholarships visit uts.edu.au/future-students/scholarships

FINANCIAL ASSISTANCE
The UTS Financial Assistance Service can help students with practical and financial aspects of life at university. Domestic UTS students with ongoing and long-term low income can approach our financial assistance service for support with advocacy to Centrelink, information on HECS and FEE-HELP, loans and equity based scholarships and grants, and advice on budgeting. As a UTS student you may be eligible for an interest free student loan from UTS of up to $500 to assist with bills, rent, one-off living expenses and other costs, such as medical costs. For more information see fees.uts.edu.au

For information on financial assistance at UTS visit ssu.uts.edu.au/fassist

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DOMESTIC STUDENTS
Domestic students who wish to apply for entry into one of the undergraduate programs at UTS must first lodge an online application through the Universities Admissions Centre (UAC) uac.edu.au

The UAC application process commences in August each year, and continues through till the end of September. Students applying through UAC must submit their application before the end of September as late fees will be applied to your application by UAC for any applications received after this date.

To be eligible to apply for a course at UTS students must satisfy at least one of the following minimum admission requirements:

> Must have attained a full NSW HSC or equivalent with an ATAR of 69 (excluding bonus points), or
> Completed TAFE TPC, Associate Diploma, AQF Diploma or Advanced Diploma, or
> Completion of one year of tertiary studies (must be full time), or
> Be at least 20 years of age at 1 March 2018.

Check the UTS website for full admission requirements.

MATURE AGE AND NON–CURRENT SCHOOL LEAVERS
The selection process for mature-aged students and non-current school leavers is based on academic merit. Academic merit is measured by your previous ATAR or equivalent interstate rank, and/or further tertiary studies. Credit recognition for tertiary studies that you have already been completed may be awarded if you have completed studies related to the course you are applying for. For further information regarding credit recognition eligibility and requirements, visit uts.edu.au

INDIGENOUS AUSTRALIANS
The Jumbunna Indigenous House of Learning provides Australian Aboriginal or Torres Strait Islander students specialised assistance to gain entry into UTS through the Jumbunna Direct Entry Program or UNISTART. For further information regarding, please visit the Jumbunna website uts.edu.au/future-students/indigenous

INTERNATIONAL STUDENTS
You are an international student if:
> you are not an Australian or New Zealand citizen
> you do not have full Australian Permanent Resident status
> you hold a temporary protection visa

International students must apply directly through UTS:International. It is best to apply early to allow yourself plenty of time to organise your Australian student visa to study at UTS.

Application Deadlines
International students may apply to UTS at any time. The closing dates for applications for particular study sessions are as follows:

Autumn Session (commences in March each year):
apply by 15 December the previous year

Spring Session (commences in July each year):
apply by 15 June

For information or to download the application form visit uts.edu.au/international or contact UTS:International

General enquiries:
international@uts.edu.au
Tel (outside Australia): + 61 3 9627 4816
Free call within Australia: 1800 774 816

Application enquiries:
international.applications@uts.edu.au
Tel: + 61 2 9514 1531

Face-to-face enquiries:
To have your questions about studying at UTS answered face-to-face, you can:
> visit a UTS student recruitment agent. Find an agent in your country by visiting uts.ac/AgentFind
> speak with a UTS representative at a UTS international event: check our listing at uts.edu.au/future-students/international/international-events

Academic requirements for international students
Entry into UTS Engineering courses is competitive. If you are an international student, you require a competitive pass in a recognised matriculation examination equivalent to an Australian Year 12 qualification.

English language requirements
If your prior education was not conducted in English, you must have successfully completed one of the following English language tests or programs within the last two years:

<table>
<thead>
<tr>
<th>Test</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>IELTS (Academic)</td>
<td>6.0 overall with a writing score of 6.0</td>
</tr>
<tr>
<td>TOEFL iBT</td>
<td>60–78 overall with a writing score of 21</td>
</tr>
<tr>
<td>AE5/AE6 (PASS)</td>
<td>AE5</td>
</tr>
<tr>
<td>PTE (Academic)</td>
<td>50–57</td>
</tr>
<tr>
<td>CAE</td>
<td>169–175</td>
</tr>
</tbody>
</table>
ENTRY SCHEMES FOR DOMESTIC STUDENTS

Year 12 Bonus Scheme
If you’re in high school and perform well in the HSC subjects relevant to the degree you’re applying for, you might be eligible to receive up to a maximum of five Year 12 Bonus points.

The below table shows the HSC subjects that can help you accumulate bonus points for entry into a UTS Engineering course.

inpUTS Educational Access Scheme (EAS)
If you have applied to be assessed for the inpUTS Educational Access Scheme (EAS) at UTS, you may be granted up to 10 concessional ATAR points. The EAS scheme is open to current high school leavers, as well as students with tertiary qualifications who have experienced educational disadvantage. In order to be eligible for bonus or concessional points at UTS, you must first meet the matriculation eligibility requirements above, which includes achieving a minimum ATAR of 69 (80 for Law).

Schools’ Recommendation Scheme (SRS)
This scheme aims to support year 12 students who are eligible to apply for support on the basis of financial hardship or school environment (S01C & S01E only) through the inpUTS Educational Access Scheme. In order to be eligible for this scheme, students must achieve a minimum ATAR rank of 69 (80 for Law). Potential applicants must submit both an EAS application for financial hardship as well as an SRS application via UAC.

UTS Elite Athletes and Performers Special Admissions Scheme
The UTS Elite Athletes and Performers Special Admissions Scheme awards 5 concessional points to potential applicants who are elite athletes and/or performers who have represented their school or state at a national level competition level, and whose sport or performance commitments have impacted on their studies.

<table>
<thead>
<tr>
<th>Subject code</th>
<th>Subject name</th>
<th>Performance band</th>
<th>Bonus points</th>
</tr>
</thead>
<tbody>
<tr>
<td>15030</td>
<td>Biology</td>
<td>6 / 5 / 4</td>
<td>4 / 3 / 2</td>
</tr>
<tr>
<td>15050</td>
<td>Chemistry</td>
<td>6 / 5 / 4</td>
<td>4 / 3 / 2</td>
</tr>
<tr>
<td>15080</td>
<td>Design and Technology</td>
<td>6 / 5 / 4</td>
<td>4 / 3 / 2</td>
</tr>
<tr>
<td>15100</td>
<td>Earth &amp; Environmental Science</td>
<td>6 / 5 / 4</td>
<td>4 / 3 / 2</td>
</tr>
<tr>
<td>15120</td>
<td>Engineering Studies</td>
<td>6 / 5 / 4</td>
<td>4 / 3 / 2</td>
</tr>
<tr>
<td>15130</td>
<td>English Standard</td>
<td>6 / 5</td>
<td>3 / 2</td>
</tr>
<tr>
<td>15140</td>
<td>English Advanced</td>
<td>6 / 5 / 4</td>
<td>4 / 3 / 2</td>
</tr>
<tr>
<td>15200</td>
<td>Industrial Technology</td>
<td>6 / 5 / 4</td>
<td>4 / 3 / 2</td>
</tr>
<tr>
<td>15210</td>
<td>Information Processes and Technology</td>
<td>6 / 5 / 4</td>
<td>4 / 3 / 2</td>
</tr>
</tbody>
</table>

The Year 12 Bonus Scheme is applicable to all UTS Engineering courses except the Bachelor of Engineering Science, Bachelor of Laws.

You do not need to apply for bonus points as they are automatically calculated based on UAC application information. For more information visit uts.ac/yr12bonuspoints
Year 12 Engineering Questionnaire
You may be eligible for an early round UAC offer to your preferred Engineering major if you complete this questionnaire! Along with the ATAR set by the Faculty, you will be evaluated based on the following criteria:

- motivation
- interest in engineering
- affinity for the engineering discipline

Even if you expect to receive a high ATAR, we strongly recommend that you complete the questionnaire in addition to your UAC application.

You will hear from a member of the Faculty in mid-December if you are eligible. The questionnaire opens on 1 August and closes on 10 December 2017.

For more information visit uts.ac/eng_questionnaire

For more information about access schemes visit uts.ac/EAschemes or contact:

UTS Equity & Diversity Unit
Tel: +61 2 9514 1084
Email: equity@uts.edu.au

ENTRY PATHWAYS
Open to domestic and international students
If you don’t gain entry to your degree of choice, consider undertaking another form of study and then reapply the following year as a non-current school leaver. At UTS there are a number of pathways you can take to gain entry to your preferred course.

Complete a UTS:INSEARCH Diploma
UTS:INSEARCH is the premium pathway provider to UTS. Diploma programs can provide direct entry into corresponding undergraduate degrees and you could fast track into the second year of a UTS undergraduate degree depending on the course you choose. Each year more than 90 per cent of INSEARCH diploma graduates are eligible for direct entry in the second year of a UTS degree.

UTS Foundation Studies provides pathways to UTS:INSEARCH diplomas and entry into the first year of an undergraduate degree at UTS provided you meet the academic admission requirements. For more information visit insearch.edu.au

Complete a TAFE Diploma (domestic students only)
UTS offers some subject exemptions to students who apply to study at UTS after first completing a course at TAFE. Each exemption is assessed on an individual basis, normally at enrolment.

Commence study of a course with a lower ATAR requirement (domestic students only)
Students who commence study at either UTS or another university can apply to transfer to their preferred UTS degree after one year. The marks you achieve in your first year of study will count towards your application and you might be eligible to receive credit recognition towards your final degree for some of the subjects you’ve studied.

For more information on all entry pathways in to UTS visit undergraduate.uts.edu.au/pathways

CREDIT RECOGNITION
If you have already completed or partially completed a university course, you might be eligible for credit recognition. This will either exempt you from certain specific subjects or reduce the number of elective subjects you need to complete. If you have completed a TAFE Diploma or Advanced Diploma in an Engineering discipline or a UTS:INSEARCH Diploma of Engineering, you will also be eligible for credit recognition.

Credit recognition is determined on a case by case basis; however, UTS publishes some of its standard credit recognition agreements through the Credit Recognition Database, which can be found at uts.edu.au/future-students/credit-recognition

MATHS AND PHYSICS PREPARATION
If you don’t have the assumed knowledge but have a strong interest in engineering, there are bridging courses, transition subjects, and student support services available. These will enable you to complete the course within the standard course duration. For more information visit uts.ac/science-bridging-courses
VISIT AUSTRALIA’S #1 YOUNG UNI

CHECK OUT OUR REINVENTED CAMPUS AND DISCOVER WHY WE’RE RANKED AUSTRALIA’S NUMBER 1 YOUNG UNI.

UTS OPEN DAY
SATURDAY 26 AUGUST 2017
9am – 4pm
Register at openday.uts.edu.au

FOR INTERNATIONAL STUDENTS:
To have your questions about studying at UTS answered face-to-face, you can:

> visit a UTS student recruitment agent - find an agent in your country by visiting uts.ac/AgentFind
> speak with a UTS representative at a UTS international event - check our listing at uts.edu.au/international

eng.uts.edu.au

DISCLAIMER: The information in this brochure is correct as at February 2017. Changes in circumstances after this date might alter the accuracy or currency of the information. UTS reserves the right to alter any content described in this brochure without notice. Readers are responsible for verifying information that pertains to them by contacting the University.

Note, this guide is for domestic students. International students should refer to the International Course Guide or uts.edu.au/international

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