2019 Undergraduate Programs

Chemical Engineering
Civil Engineering
Computer Science
Electrical Engineering
Information Technology

Mechanical Engineering
Mechatronic Engineering
Mining Engineering
Software Engineering
3
CAMPUSES

6
FACULTIES

52,000+
STUDENTS FROM MORE THAN

141
COUNTRIES

385
PROGRAMS
QS Graduate Employability Rankings 2017

#1 IN QUEENSLAND FOR GRADUATE EMPLOYABILITY

MORE NATIONAL TEACHING AWARDS THAN ANY OTHER AUSTRALIAN UNIVERSITY

STATE-OF-THE-ART FACILITIES
Choose Engineering
As one of the most comprehensive engineering degrees in Australia, UQ’s Bachelor of Engineering (Honours) will put you at the forefront of established and emerging engineering disciplines. This industry-relevant, hands-on and dynamic program provides a strong foundation in mathematics, science and engineering design, empowering you to meet the demands of the future. As a UQ-qualified engineer, you will have gained the critical skills and knowledge to develop practical solutions that impact the world we live in.

Choose Computing
As our reliance on computer-based systems increase in the finance, energy, transport, health and communications sectors, now is the perfect time to study computing at UQ. In 2018, UQ will celebrate 50 years of teaching computer science, so you can be assured you’ll be taught by highly qualified academic staff and experts who are developing solutions to society’s most demanding issues. You’ll graduate job-ready to launch into an exciting career in areas such as cyber security, data science, information technology, machine learning, programming and user experience design, for some of the world’s biggest corporations, including Apple, Google, Oracle, Telstra and Microsoft.

To ensure you exit your degree with the most current and relevant skills, our programs are developed in consultation with industry leaders via an Industry Advisory Board. You’ll be prepared to respond to the constant change that occurs in industry and understand the many facets of computing.

BRADY WHITBY
Bachelor of Information Technology student
UQ Alumni Scholarship recipient

“I am the first in my family to pursue tertiary studies. I didn’t go to university straight after high school. Over time, in a number of jobs, I gradually uncovered my passion for information technology and programming, but I wanted to know more. This led me to look into how I could apply to university. Due to my high school transcript, applying for university wasn’t straightforward, but, it can be done! I studied and passed the STAT test to give me an eligibility ranking high enough to apply for my degree. I also completed a Maths B course via distance education. I am currently studying a Bachelor of Information Technology at UQ.”
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The university of choice for women in engineering in Queensland

Work anywhere in the world
 Our qualifications are recognised internationally, allowing graduates to work anywhere in the world

$1 million worth of scholarships and prizes awarded annually

Photo taken by Yong Hooi Goh, Bachelor of Engineering (Honours) (Chemical) student.
Drive innovation to SHAPE THE FUTURE of our world
ENGINEERING AT UQ

Engineers create imaginative and visionary solutions for the challenges facing the planet, to improve the world we live in.

Exceptional opportunities
As a UQ Engineering student, you can participate in international robotics competitions, study tours overseas, national mechanical engineering competitions, international space forums, biomedical and environmental engineering forums, the mining games, and the Formula One-style racing car competition where a group of students design, build and test a Formula SAE* racing car. You also have the opportunity to join the UQ chapter of Engineers Without Borders and contribute to humanitarian engineering projects in developing communities.

*Society of Automotive Engineers

Student societies
UQ Engineering has some of the most active student groups on campus, including many undergraduate engineering student societies. Student societies provide a voice for the engineering student community and bring students together through networking and social events. They also provide valuable opportunities to engage with industry – all of which serve to further enrich your student experience.

Careers
Discover the dynamic and adaptive career you can create with a UQ Engineering degree. From offshore oil and gas production facilities and high-rise commercial buildings, to establishing software development companies and leading major design teams, as a UQ-qualified engineer you can drive innovation to shape the future of our world.

Practical learning
Develop your professional skills and gain a competitive edge through hands-on learning at every level of your degree.

Ranked
1st in Queensland for Engineering and Technology*
1st in Australia for Chemical Engineering*
10th in the world for Mineral and Mining Engineering*

*2018 QS World University Rankings by Subject
BACHELOR OF ENGINEERING (HONOURS)
YOUR HONOURS DEGREE OVER FOUR YEARS

Flexible first year
You will study foundation courses introducing you to the way professional engineers think and work, combined with engineering practice courses involving engineering design, physical prototyping and modelling – each incorporating different engineering disciplines.

Engineering major
Choose a major and study courses specific to your career aspirations. There are 18 areas to choose from – the largest range of majors offered in Queensland (refer to the table below and following pages).

Consolidate your study
Consolidate your learning in your chosen major to match your individual career goals. This is also a great time to undertake an exchange semester and broaden your knowledge and networks. uq.edu.au/uqabroad

Apply your skills
Complete a research or industry-related project to apply the skills you’ve learnt throughout your degree and get ready for the workforce.

MAJORS
The UQ Bachelor of Engineering (Honours) program offers 18 majors in engineering, along with a number of minors that can be added to broaden your area of specialty:

Bachelor of Engineering (Honours) (Civil)
Offered with dual majors in:
• Environmental
• Geotechnical

Bachelor of Engineering (Honours) (Chemical)*
Offered with dual majors in:
• Biological
• Environmental
• Materials
• Metallurgical

Bachelor of Engineering (Honours) (Electrical)
Offered with dual majors in:
• Biomedical
• Computer

Bachelor of Engineering (Honours) (Mechanical)
Offered with dual majors in:
• Aerospace
• Materials

Bachelor of Engineering (Honours) (Mechatronics)
Bachelor of Engineering (Honours) (Mining)
Offered with a dual major in:
• Geotechnical

Bachelor of Engineering (Honours) (Software)**

*Minor in Food Engineering is also available. ** Minor in Data Science is also available.

Bartosz Krzak is a Bachelor of Engineering (Honours) / Master of Engineering (Mechanical and Aerospace) student on placement at Brisbane Airport Corporation.
What you will study

Drawing on detailed process development, modelling and systems thinking, chemical engineers apply new approaches and big picture thinking to reduce waste and energy consumption. In this hands-on major, you will explore topics including energy and mass flows, safety and sustainability, and the possibilities of interconnected systems. You will benefit from the insights and expertise of world-leading researchers and highly-qualified academic staff. With practical projects, guest lecturers from industry, internships and placements with leading engineering companies, you will gain the knowledge, skills and industry connections you need to transition from university to the workplace.

Careers

Chemical engineers work in operational, strategic and client-facing roles in consultancies, government agencies and industries. Our graduates are employed in environmental protection, management and safety, natural resource use and the energy sector, and petroleum and petrochemical industries. Chemical engineers also find positions working on computer-aided processes and control engineering, advanced materials design and manufacture, minerals processing and related industries, food processing and biotechnology, waste management and product design and development.
DUAL MAJORS

Chemical and Biological

In this dual major, you will learn how to use biological and chemical engineering in partnership to transform cells and deliver new solutions. This involves learning how to design and produce biological systems at a molecular, cellular and tissue level. Chemical and biological engineers, or bioengineers, work on groundbreaking projects including the development of renewable fuels, plastics and medical devices. Bioengineers also focus on initiatives such as cell and tissue engineering for growing cartilage, stem cell transplants and artificial blood. Companies such as Bayer, Unilever, Wilmar and Manildra employ bioengineers.

Chemical and Environmental

Chemical and environmental engineers balance innovation, design and development with environmental considerations. They apply their knowledge and skills to understand natural systems and assess, measure and develop strategies to mitigate environmental impacts. They also use their technical skills in partnership with community engagement to explain and implement sustainable systems.

Chemical and Materials

Do you want to create materials that transform how we live? Chemical and materials engineers transform materials to create production efficiencies and reduce emissions and waste. They also uncover ways to reuse and recycle products. You will learn how to select, process and develop materials to design and make products, and explore the impacts of temperature during processing. Your studies will explore the relationships between microstructures, mechanical properties, manufacturing and service performance. Quantum computing is also covered, along with the use of structural materials including metals, ceramics and polymers through to functional materials such as artificial skin. With high graduate employment rates, you will graduate as a professionally trained chemical engineer.

Chemical and Metallurgical

Are you ready to play your role in helping to create a sustainable society? Almost everything in the material world is derived from minerals or recycled metals. Chemical and metallurgical engineers play a vital role in developing, managing and improving the processes required to transfer ore into metal and mineral products. With a strong focus on efficiency and sustainability, these engineers are involved in the recycling of metals from crushing, extraction and purification through to product development. In this dual major, you will study physical and chemical processing techniques, process modelling, process design and economics, and undertake individual research. Metallurgical engineers often work closely with mining engineers and are involved in developing advanced manufacturing processes. They also design metal parts, solve problems and work on major, high-tech projects all around the world.

WILLIAM JONES
Bachelor of Engineering (Honours) (Chemical) / Bachelor of Commerce
Supply Chain Analyst, BHP Billiton, Brisbane

“I chose UQ as it is one of the leading science, technology, engineering and mathematics (STEM) universities in Australia.

Among the highlights of my degree was the exceptional quality of the teachers, the beautiful campus and how tight-knit the engineering cohorts become, enabling students to create lifelong friendships that translate to industry networks.

At UQ I learnt a variety of practice-relevant skills and knowledge, including how to solve complex problems. These skills, coupled with my degree, have enabled me to work for the world’s largest oil and gas company, the world’s largest diversified mining company, and a global tier-one professional services firm within the first two years of my career.

The most satisfying and exciting part of my current job as a supply chain analyst is the constant problem solving – be it strategic, technical or anywhere in between – and the exposure to some of the biggest companies, biggest projects and most important industries in the world.”
Are you ready to unleash your creative vision and gain the specialised skills you need to design and build a world that is beautiful, functional and sustainable?

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<td>St Lucia</td>
<td>Part of standard program, awarded based on weighted cumulative grade point average</td>
<td>Arts, Business Management, Commerce, Computer Science, Economics, Information Technology, Mathematics, Science</td>
<td>Queensland Year 12 or equivalent English, Mathematics B, plus one of Physics or Chemistry</td>
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Helena Coleman, Juan Cuevas (centre) and Mitchell Hunter in a Fluid Dynamics tutorial within Australia’s largest academic and teaching hydraulic laboratories.
What you will study
In the civil engineering major, your studies will encompass how to plan, design, build and maintain major infrastructure such as buildings, dams, airports, and utility supply and public health facilities. You will learn how to protect and improve our environment while also meeting the changing needs of society.

You will consider the requirements of diverse locations and explore environmental challenges such as climate change, rainfall, wind and flooding; population needs and sustainability; and technical functionality such as loads and hydraulics.

The civil engineering degree incorporates water, public health, hydrology, transportation, geomechanics, transport, structural and environmental engineering. With highly experienced academic staff who are leaders in their fields, you will have access to the latest knowledge and some of the most innovative thinkers in the industry.

Careers
Within the private sector, consulting civil engineers are engaged to plan, design, manage and supervise diverse projects that significantly impact the daily lives of our populations. Within state and federal governments, civil engineers manage railways, roads, harbours, housing and other construction initiatives.

Sustainable development is an increasing priority for industries and governments and our graduates have rewarding careers while contributing to global communities. This dual major includes diverse electives and core subjects focusing on environmental modelling, risk management, project management, design and compulsory research. You will learn how civil and environmental engineers contribute to policy development and explore how new processes evolve to implementation. Your studies may focus on areas such as energy resources, water supply, reticulation and sewerage treatment, contamination management, transport and housing.

Graduates work with emerging industries and companies to identify more sustainable energy resources, and participate in infrastructure research and development. Companies such as Thiess, Santos, Origin Energy and GHD employ civil and environmental engineers.

UQ is the only university in Australia to offer specialised study in geotechnical engineering as part of a dual major. With its strong environmental focus, this degree will place you at the forefront of understanding and applying investigations of the ground.

As a civil and geotechnical engineer, you will test soils for industrial contaminants; analyse the impacts of movement, settlement and water; and assess load capacity for infrastructure such as roads, bridges and other structures.

This is one of the most popular engineering disciplines and incorporates soil and rock mechanics and engineering geology. It also provides strong insights for students seeking to work in the civil and mining sectors.

TRANG PHAM
Bachelor of Engineering (Honours) (Civil) / Bachelor of Business Management (Marketing)
Engineer, Department of Transport and Main Roads, Brisbane

“UQ has a renowned engineering program that is known for its leading research programs and its strong ties to industry. Engineering is more than just being an engineer – UQ gave me a strong foundation in complex problem solving, critical thinking, and a career that would go beyond just engineering.

My job has exposed me to many diverse and innovative projects. Every day is different and I get to meet and work with many people across the organisation and the community.

In addition, by working as part of the public service, I feel that I’m contributing to positive changes in the community.

A dual degree offers a range of opportunities. I found that completing a Bachelor of Business Management at the same time as my engineering degree has helped me immensely because my job has a large emphasis on creating relationships within a team and building networks.

Engineering is a fast-paced industry that thrives on innovation and new technology. Always be willing to learn.”
What you will study
Within the electrical major, you will learn how manage, develop, maintain and generate power. You will also study electronic and radio signals, and explore how to automate and control the machines in vehicles, processing plants and our homes. Subjects in this major will cover electromagnetic, circuit and control theories; the science of electricity; and computer hardware and software. Other focus areas incorporate electronics and how to build digital, communications and analogue systems.

Careers
This is a dynamic growth sector and electrical engineers can access exciting opportunities with major internet, communications and power generation organisations such as WorleyParsons, Boeing, WSP and Hatch. Many graduates establish their own companies early in their careers or work overseas.
Electrical and Biomedical

Electrical and biomedical engineers have revolutionised healthcare for entire populations with the invention of devices and machines such as pacemakers and ultrasounds. Can you imagine how it would feel to create a device that pumps blood throughout someone’s body?

In the electrical and biomedical dual major, you will learn how to bridge the gap between technology, medicine and biology. Your studies will include how to design, construct and maintain health-monitoring devices, and diagnostic and therapeutic systems such as surgical lasers. You will explore the fundamentals of medical signal processing, such as how to analyse electroencephalograms (EEGs), and explore how biomedical devices operate. Students also learn how to interpret the electrical signals produced by these devices.

This degree incorporates all electrical engineering subjects with specialised coursework in the use of electronics in healthcare. You will also undertake detailed coursework and laboratory training that combines engineering analysis and design techniques with the biology and physiology of cells and organisms.

Electrical and biomedical engineering graduates are in high demand and gain roles with hospitals, biotechnology companies, research institutes and government health departments. Positions are also available in companies where medical equipment and devices such as pacemakers, ultrasounds and EEGs are developed and manufactured. Some graduates work with computer models of the human body, such as the virtual heart project, and with prosthetics and implants, such as defibrillators, cardiac pacemakers and artificial organs. Other graduates find roles in building, maintaining and monitoring biomedical equipment in hospitals. Electrical and biomedical engineers are employed by organisations such as Siemens, Philips, Cochlear and ResMed.

Electrical and Computer

Do you want to create the next generation of iPads, laptops or PCs? Are you interested in building computers that control machinery, medical instruments, cars, white goods, robots, communications equipment and satellites?

This degree will equip you with the skills and knowledge you need to claim your place within a high-growth industry. During your studies, you will learn how to build, program and network computer-based devices to allow data to be transmitted and shared.

Your coursework will also include detailed studies in computer hardware and software systems, with a strong focus on the computers used in machines and appliances.

Electrical and computer engineers are highly valued in industries where advanced electrical and electronic equipment is designed, upgraded and maintained. Our graduates find roles developing computer-based products for transportation, home appliances, and lift, air-conditioning and entry systems. They also design highly specialised electronic equipment for private enterprise.

Electrical and computer engineers are employed as system integrators who build machines that require computer control. They also become programmers who design and implement applications for embedded microcontrollers and information terminals.

DR MATTHEW PETOE
Bachelor of Engineering (Honours) (Electrical and Biomedical)
Part of a consortium of researchers who are working on the development of the Retinal Prosthesis or ‘Bionic Eye’

“With an ageing population, our reliance on the healthcare system is increasing more and more each year. As doctors and healthcare professionals of the babyboomer generation begin to retire, we are witnessing a paradigm-shift in how we think about and address health issues. As the world around us begins to look to engineering and technology for solutions, so too does our healthcare sector. And as our alumni and researchers will tell you, it’s not a moment too soon.”

DUAL MAJORS

Across the globe, MORE THAN EIGHT BILLION SCANS have been completed using world-leading magnetic resonance imaging technology developed at UQ

MORE THAN EIGHT BILLION SCANS have been completed using world-leading magnetic resonance imaging technology developed at UQ
What you will study

During this broad degree, you will learn how to design, manufacture and control machines and engines ranging from power generators through to manufacturing systems. You’ll also have access to innovative technologies and our specialist workshop areas (including our race car workshop) where you can practise your new skills.

You will study air, heat and energy flows, and learn how to control and automate machines. Using your strong analytical skills, you will identify and develop solutions for all kinds of mechanical challenges and gain an excellent understanding of how machines are used in everyday conveniences from refrigerators to sound production, roller-coasters and computers. You will develop expertise in creating precision machinery and apply the fundamentals of physics, chemistry, biology and technology to leverage the latest advances in cutting-edge nanotechnology.

Careers

Our graduates have the practical and advanced theoretical knowledge needed to step into roles that lead machinery development across the globe. Mechanical engineers find employment in dynamic environments where machines are designed, developed, tested and manufactured. These engineers can be found in the automotive, aerospace, mining, refining, manufacturing, environmental, medical, power generation and building industries.
DUAL MAJORS

Mechanical and Aerospace

Can you imagine designing a satellite that orbits the planet? Are you excited about the possibilities of drones or exploring space – the final frontier?

During the mechanical and aerospace dual major, you will learn how to apply sophisticated engineering principles to design air and spacecraft using emerging technology in state-of-the-art laboratories.

You will learn how to design, manufacture and operate aircraft, launch vehicles, satellites, drones, spacecraft and ground support facilities. Your studies will also cover aerospace propulsion before you undertake specialist study in aeronautical or space engineering to obtain your dual major.

Coursework includes flight mechanics, aerospace composites, space engineering, and computational fluid dynamics. You will also gain access to UQ’s hypersonic shock tunnels to help expand your understanding of hypersonic aerodynamics.

The mechanical and aerospace degree incorporates project work in the aerospace and aviation industry to help ensure graduates futureproof their careers through the development of powerful industry connections and professional networks.

Mechanical and aerospace engineers work in groundbreaking roles focused on the development of commercial aerospace and military engines, systems and flight efficiency services. Our graduates are highly competitive and gain sought after roles with companies focused on advanced and emerging technologies and systems.

Some graduates work within small enterprises while others take on positions as part of a larger engineering team. Companies such as Boeing, Rolls Royce, General Electric and Airbus typically employ mechanical and aerospace engineers for their specialist knowledge and technical skills.

Mechanical and Materials

UQ is the only university in Queensland to offer this highly specialised dual major, which prepares students to work on everything from jet engines through to iPads and contact lenses. If you’re interested in learning how to select the right materials for the right jobs, then this degree is for you.

During your studies, you will explore all aspects of mechanical engineering and learn how to analyse the properties and processing qualities of materials such as metals, alloys, ceramics and composites.

You will also learn how to select, use, develop and manufacture new and existing materials to achieve functional and aesthetic outcomes and meet specific client requirements.

Your coursework will provide you with opportunities to develop strong technical skills and gain an understanding of how the performance of machines and structures can be improved through the selection of the most effective and responsive materials.

With a strong grounding in all aspects of materials engineering from material selection and failure analysis through to product design, research and development, and manufacturing processes, you will exit your degree with a highly valued qualification.

Our graduates access exciting career opportunities in the manufacture of aerospace products and parts, primary metals, and computer and electronic products. Others participate in leading research initiatives involving new technologies such as nanomaterials and biomaterials.

Mechanical and materials engineers obtain local and international roles in diverse industries ranging from mining and refining through to construction and manufacturing. These engineers use their skills and knowledge to design and manufacture products and machines such as planes and space shuttles; laptops and smart phones; artificial hips, contact lenses, bionic ears and artificial skin; high-performance sporting equipment; and transport such as levitating trains.

Mechanical and materials engineers are employed by private companies such as ConocoPhillips, Brisbane and private companies such as AlumniTech, TechExpo and Integra LifeSciences Corp.
What you will study

As a mining engineer, you will help ensure our communities have the vital metals and minerals we need for the steel frames in our buildings through to the Intel chips in our laptops. You will also possess the expertise to manage all phases of mining operations from discovery through to feasibility, development production, processing and marketing, and finally to mine closure and rehabilitation.

This mining major, ranked in the top 10 in the world*, will provide you with a strong grounding in advanced mathematics, and earth and engineering sciences. Subjects will cover thermodynamics; fluid, particle and structural mechanics; mechanical and electrical machinery; and controls. You will also explore mining methods, mine planning and design, geomechanics, ventilation, surveying, economics, management, safety and environmental aspects.

Careers

Mining engineers find rewarding roles with local and international mining and contracting companies and often begin their careers in centres where minerals such as gold, silver, copper, lead, zinc, uranium ores, coal, natural gas, limestone and phosphate rock are extracted. These engineers will usually work (at least in the early stages of their careers) in outdoor conditions away from major cities. Mining engineers can choose to specialise in operations, or become senior managers or technical specialists and move to major cities where head offices are located.

Experienced mining engineers also find roles as mine inspectors and advisers to government bodies, and supervise tunnelling and open-cut operations for railways, roads, hydroelectric and sewerage works for civil engineering companies.

*QS World University Rankings by Subject, 2018
This highly specialised degree will place you at the forefront of mining development and provide you with the technical and practical skills to work on projects in Australia and overseas. Geotechnical skills are becoming increasingly important in dynamic environments where mines are going deeper.

Throughout this dual major, you will undertake focused study in soil mechanics, rock mechanics and engineering geology. You will also learn how soil behaves when under load and during excavation, and gain a strong understanding of how the strengths, faults and joints of rocks influence the success or failure of mining operations.

With support from UQ’s industry partners, you’ll learn from experts and exit your degree with the professional knowledge and skills needed to solve multidisciplinary problems involving earth materials.

Graduates usually work with mining and geotechnical consultancies, mining companies, and civil and mining contractors. Many graduates will also establish their own companies as their careers progress.

Mining and geotechnical engineers often work in design, operation, management, research and consulting on projects ranging from roads and excavations through to tunnelling and mining. These engineers are frequently employed by major companies such as Rio Tinto, BHP Billiton and Golder Associates.

Industry placement opportunities
with companies that are members of the Queensland Resources Council

UQ’s extensive industry connections
will also enable you to develop professional networks from your first year of university and gain expertise through onsite industry experience

The mining, resources and energy industries topped the list of Australia’s fastest-growing job market, based on largest job ad volumes from January to November 2017


DR JADE LITTLE
Bachelor of Engineering (Honours) (Mining) / Bachelor of Arts / Doctor of Philosophy (Mining)
Planning Superintendent, BHP Billiton, Brisbane

“What I loved about the engineering program at UQ was the ability to complete a general first year of engineering before having to select a discipline. When I received my welcome pack from UQ, I ranked all disciplines and placed mining engineering at the bottom of my list. By the end of my first year, I listed it first and went on to choose mining as my discipline!

I was lucky enough to complete three engineering work experience placements in three countries: Australia, China and India. Two of these placements were the direct result of connections I made at UQ. The culture at UQ allowed me to approach my studies boldly. I studied a dual engineering and arts degree, which I completed in four years, rather than the recommended five and a half years. This would not have been possible without UQ allowing me some flexibility and without the faith of my lecturers. My lecturers were so approachable and they formed a key part of my support network. Without them, I wouldn’t even have considered starting a PhD.”
Are you ready for one of the most hands-on mechatronics degrees in Australia? Do you want to learn how to retrieve a submarine from the ocean floor or build an autonomous drone? Are you intrigued by the possibilities of combining robotics with computer science and taking artificial intelligence to the next level?

Bachelor of Engineering (Honours) MECHATRONICS

AN EXCITING MERGE of mechanical, electrical and software engineering
What you will study

This major begins with foundational elements including theory, principles of design, mechatronic systems, professional communication skills and ethics. Your studies will incorporate the dynamics and materials of mechanical engineering along with electrical elements such as circuit design. You will explore concepts and practical applications with studies in artificial intelligence, signal and systems theory, and control theory. This knowledge will also be integrated with computer science as you learn how mechanical and electrical components work together in aerospace systems and industrial automation.

Each year you will complete a hands-on, project-based subject as part of a student team. This will involve designing and building a system to solve a mechatronics task. Previous projects include a mini-rescue vehicle, autonomous drones, cars and sailboats, and submarine recovery. You will also complete a robotics project in your third year of study.

Careers

Mechatronics engineers are highly sought after as the demand for artificial intelligence systems, robotics, automated industrial machinery and avionics continues to grow globally. You will exit with qualifications that allow you to take advantage of employment opportunities in the aerospace, automotive, robotics, fabrication and processing, mining, shipping, and rail sectors.

Mechatronic engineers invent, design and create advanced robotic technology to meet the needs of our future world. Employers include BAE Systems, Arnott’s Australia, Epsom, Google, Amazon, Boeing ABB, Telstra, Uber and Accenture. These engineers can also be found in challenging consulting roles and within public departments and agencies such as the Department of Defence.

MADISON BEARE
Bachelor of Engineering (Honours) (Mechatronics) / Bachelor of Science (Computer Science) student

“I chose to study engineering as it incorporates both my interest in the STEM field and my passion for creating and designing. In particular, I chose Mechatronic Engineering because I was interested in how electrical and mechanical components combine with software to create systems and robots. I love how we complete projects that show how each discipline relies on the others.

For students looking to study engineering at UQ, I highly recommend getting involved and embracing team projects. I have found that the team projects are the place where you put your knowledge into practice, and where you learn the most. Embracing these projects also allows you to connect with others completing the same degree as you, and bond over the fact that everyone struggles from time to time.

I am very interested in robotics, automation and artificial intelligence. With my degree, I hope to focus on automation in the healthcare industry.”
Bachelor of Engineering (Honours) SOFTWARE

Do you envision a world where lens-free cameras and spray-on screens are a reality? Are you interested in working with cutting-edge technologies and creating innovative software design?

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<td>7 / 86</td>
<td>9 / 81</td>
<td>4 years full-time (or part-time equivalent)</td>
<td>1, 2</td>
<td>St Lucia</td>
<td>Part of standard program, awarded based on weighted cumulative grade point average</td>
<td>Arts, Business Management, Commerce, Economics, Mathematics, Science</td>
<td>Queensland Year 12 or equivalent English, Mathematics B, plus one of Physics or Chemistry</td>
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See 'Program table explained' on page 56.
What you will study
The software engineering major focuses on designing high-quality computer software and offers focused studies in computer programming, databases, web-based computing, cloud computing and cyber security. It also explores formal software engineering including how to design programs and systems that are free from errors, reliable, safe, efficient and manageable.
You will learn how to use computers to provide solutions and deliver high-quality code on time that can be integrated into existing operating environments.

Careers
In this field, you will use the principles of computer design, engineering, management, psychology and sociology in small or large multinational companies.
Accredited software engineers establish their own consultancies and work with large corporations in the areas of software design, development and advancement. Diverse roles are available, ranging from information security analysts, computer and multimedia programmers, through to software developers and information systems managers. Graduates also find employment as network managers with oversight of all company data including databases and storage.
Software engineers are employed by leading organisations such as SAP, Oracle, IBM, eBay, LinkedIn, Google and Canon.

ANABELLE COOPER
Bachelor of Engineering (Honours) (Software) student
Metro Schools Manager, Robogals Brisbane

“As a kid, I had always enjoyed building things, whether that was with LEGO or in Manual Arts class in high school. When I found out that engineering was pretty much designing complex systems, I knew it was for me. However, I didn’t know what major I wanted to go into until I got to university. I initially chose Mechatronic Engineering, as it merges Mechanical, Electrical and Software Engineering fields, but as my degree progressed I changed into Software Engineering as I found it to be my true passion. The most enjoyable or interesting part of my degree is definitely the project work where we have to build a product. In first year, my team designed and built an autonomous watercraft, while further in my degree my team designed a software application. The process of iterating your idea to solve a real-life problem is very interesting to me.
Software engineers have the tools to use technology to its fullest extent. With my degree, I want to pursue the potential of using software to help people. I am passionate about assistive technology and ways we can use affordable, reliable technology to help people lead more fulfilling lives.”
ENGINEERING DUAL PROGRAMS

Improve your employment prospects and broaden your skills and knowledge by studying two programs at the same time.

A dual program gives you the flexibility to study several areas of interest at once. The additional knowledge and skills you’ll gain will give you a competitive edge in the workplace and significantly broaden your career possibilities. Dual programs can also be completed more quickly than two separate degrees, as students complete the core components of each program.

In some programs you can choose to undertake additional courses during your summer semesters to finish the program even faster – by up to one semester.

**Engineering (Honours) / Arts**  
Program duration: 5.5 years  
This program allows combinations of the humanities and engineering. It is an excellent plan if you wish to combine languages, cultural studies and the behavioural sciences with engineering.

**Engineering (Honours) / Biotechnology (Honours)**  
Program duration: 5.5 years  
By combining these degrees, you will have an ideal combination of skills for the production side of modern biotechnology. This program is available with the BE(Hons) (Chemical Engineering) and BBiotech(Hons) (Process Technology) only.

**Engineering (Honours) / Business Management**  
Program duration: 5.5 years  
By combining these two areas of study, you will attain not only a high level of engineering proficiency, but also gain additional valuable knowledge and skills to assist in effective and successful business management.

**Engineering (Honours) / Commerce**  
Program duration: 5.5 years  
By combining these two areas of study in a dual degree, you will be given a focused background in commerce, along with specific practical and theoretical understandings relevant to your chosen field in engineering.

**Engineering (Honours) / Computer Science**  
Program duration: 5.5 years  
This dual degree allows students to combine studies in engineering with emerging computer science technologies such as cyber security, data science and artificial intelligence (not available with Software Engineering).

**Engineering (Honours) / Economics**  
Program duration: 5.5 years  
An excellent combination if you want an option of working in business or government interfacing with engineering and technology-based industry.

**Engineering (Honours) / Information Technology**  
Program duration: 5.5 years  
Ideal if you wish to combine the theory and practice of modern computing with another field in engineering. This program is available with some dual and extended majors, and all single majors except Software Engineering.

**Engineering (Honours) / Mathematics**  
Program duration: 5 years  
Create a strong mathematics base for your engineering studies and equip yourself to work in both established and emerging areas of engineering.

**Engineering (Honours) / Science**  
Program duration: 5 years  
Engineering and science are complementary areas of study. Engineering considers the practical and useful applications of scientific knowledge. Science is about understanding the natural and physical world. This dual degree provides you with an extended science base for engineering if you are interested in knowing more about the science and mathematics underpinning engineering.

See page 43 for a summary of entry information.

Note: All dual programs are available with all single majors unless otherwise indicated. Engineering dual or extended majors are only available within the Bachelor of Engineering (Honours), Bachelor of Engineering (Honours) / Bachelor of Science, Bachelor of Engineering (Honours) / Bachelor of Mathematics, or (for some majors) with the Bachelor of Engineering (Honours) / Bachelor of Information Technology or Bachelor of Engineering (Honours) / Bachelor of Computer Science.
ALTERNATIVE PATHWAYS

Bachelor of Engineering (Honours)

Didn’t get a high enough OP?

Preferred degree

Bachelor of Engineering (Honours)

Completed Mathematics B, and either Chemistry or Physics in High School but didn’t get the required OP?

Bachelor of Science

Take Engineering academic advice in course selection. Achieve a GPA of 4.0 or higher in your first year.

Year 1

Bachelor of Engineering (Honours)

Receive up to one year of credit towards the BE (Hons). Undertake core engineering courses in second year before realigning.

Year 2

Don’t have the prerequisites?

Preferred degree

Bachelor of Engineering (Honours)

Haven’t completed Physics or Chemistry prerequisite courses for the BE(Hons)? Completed Mathematics B?

Bachelor of Information Technology

Take Engineering academic advice in course selection. Complete prerequisite courses PHYS171 or CHEM1090. Achieve a GPA of 4.0 or higher in your first year.

Year 1

Bachelor of Engineering (Honours)

Receive up to one year of credit towards the BE (Hons). Undertake core engineering courses in second year before realigning.

Year 2
BACHELOR OF ENGINEERING (HONOURS) / MASTER OF ENGINEERING

Combine your undergraduate and postgraduate studies together in one unique double degree and get your career off to a flying start.

BACHELOR OF ENGINEERING (HONOURS) / MASTER OF ENGINEERING

MAJORS

- Chemical
- Chemical and Biological
- Chemical and Environmental
- Chemical and Materials
- Chemical and Metallurgical
- Civil
- Civil and Fire Safety
- Electrical
- Electrical and Biomedical
- Electrical and Computer
- Mechanical
- Mechanical and Aerospace
- Mechanical and Materials
- Mechatronic
- Software.

Students who directly enter the BE(Hons)/ME from first year automatically become members of the Engineering, Architecture and Information Technology (EAIT) Scholars program for their first year of study.

If you want to lead your field, advance the boundaries of knowledge and develop high-level competence and expertise, the integrated Bachelor of Engineering (Honours) / Master of Engineering (BE(Hons)/ME) double degree is for you.

The Bachelor of Engineering (Honours) / Master of Engineering combines our undergraduate engineering program with master’s level coursework, research and a semester-long placement with an industry or research partner. These courses are designed to provide specialist knowledge of the various disciplines and place you closer to the leading edge of technology. Industry needs graduates who can apply new technologies to existing and emerging industries. The master’s courses will give you a clear and demonstrable advantage when applying for jobs that require advanced skills and capabilities.

UQ Engineering has a proud history of innovation and leadership in engineering education, and the BE(Hons)/ME program will continue to position UQ engineers as industry leaders, both in Australia and internationally. Our existing industry partners have shown great enthusiasm for this program as a way of developing outstanding engineers.

If you want to lead your field, advance the boundaries of knowledge and develop high-level competence and expertise, the integrated Bachelor of Engineering (Honours) / Master of Engineering (BE(Hons)/ME) double degree is for you.

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GAIN A CLEAR ADVANTAGE when applying for jobs that require advanced skills and capabilities.
WERN TAN
Bachelor of Engineering (Honours) / Master of Engineering student

“I undertook my placement at Arnott’s as part of the 24-week placement associated with the Bachelor of Engineering (Honours) / Master of Engineering program. Working in industry with real people and problems allows for a wider perspective and understanding to be gained. I have always been interested in the food manufacturing industry and intend to pursue a career in this field. I am certain that my experience at Arnott’s will give me a headstart in achieving this.”

YOUR INTEGRATED MASTERS OVER FIVE YEARS

Flexible first year
You will study foundation courses introducing you to the way professional engineers think and work, combined with engineering practice courses involving engineering design, physical prototyping and modelling – each incorporating different engineering disciplines.

Engineering major
Choose a major and study courses specific to your career aspirations. There are 15 areas to choose from (refer to the table, left).

Consolidate your study
Consolidate your learning in your chosen major to match your individual career goals. This is also a great time to undertake an exchange semester! uq.edu.au/uqabroad

Master’s courses / industry placement
Undertake a semester-long industry research placement. Your interest and career ambitions will be the driving force behind what you choose to do. Study advanced-level specialist courses in your discipline and gain exposure to the challenges of engineering.
“I chose to study engineering because I have always enjoyed the problem-solving side of maths and physics. Initially, I intended to study civil engineering, but I switched to mechanical engineering in second year because I love cars and enjoyed working with dynamic systems. I joined the UQ Racing team where we designed, built and raced a formula-style car against other universities. There are so many clubs and events on campus to help you to get out there and meet people.

UQ engineering courses and lecturers are some of the best in Australia. Engineering isn’t just about numbers and reports; it’s also about making mutually beneficial connections. It is amazing how many connections I have made from UQ.

In my current job, there are always new projects coming up and different people to learn from. I can’t remember a time I have gone to work and haven’t learned something new. The work we do is challenging, which makes it even more rewarding when it is successfully completed.

My advice to new students would be to get involved and to back yourself – it only takes one person with a different idea to start something big.”

ENGINEERING AND COMPUTING 2019

Did you know?

Each year, there are more than 18,000 engineering jobs needing to be filled in Australia alone

Engineers Australia and the Australian Bureau of Statistics

Engineering salaries

<table>
<thead>
<tr>
<th>Early to late career salary ranges</th>
<th>Software engineers</th>
<th>Environmental engineers</th>
<th>Biomedical engineers</th>
<th>Mining engineers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil engineers</td>
<td>Entry-level: $48,572 – $90,712</td>
<td>Entry-level: $49,104 – $84,889</td>
<td>Entry-level: $48,358 – $85,612</td>
<td>Entry-level: $76,848 – $141,617</td>
</tr>
<tr>
<td>Geotechnical engineers</td>
<td>$55,635 – $96,272</td>
<td>$69,815 – $123,819</td>
<td>$80,676 – $129,384</td>
<td>$76,848 – $141,617</td>
</tr>
<tr>
<td>Aerospace engineers</td>
<td>$54,001 – $96,456</td>
<td>$80,676 – $123,819</td>
<td>$118,396 – $205,549</td>
<td>Experienced: $78,362 – $205,549</td>
</tr>
</tbody>
</table>

Payscale.com 2018. All figures are in Australian dollars.
FACILITIES

Our learning facilities provide technologically rich, flexible and comfortable social learning spaces for you to congregate, share ideas, help each other and socialise. Below are just a few of the facilities in which we encourage you to think, explore and create.

The Advanced Engineering Building
The Advanced Engineering Building (AEB) enhances UQ’s ability to deliver practical, active learning styles for engineering students, and maximise global research opportunities that enable UQ to respond to major shifts in the world economy and global marketplace for innovative engineering solutions.

The $130-million building houses the state-of-the-art GHD Auditorium – a 500-seat lecture theatre supported by large-span timber trusses – as well as active learning laboratories, design studios and contemporary research facilities associated with global engineering research centres.

State-of-the-art equipment

Virtual Immersive Learning Facility
Powered by three high-powered digital projectors displaying onto an eight-metre semicircular wall, this simulation facility (pictured below) enables you to experience what it feels like to be onsite at a mine, a building site or a chemical-processing plant.

Hypersonic Expansion Tube
Travelling at several times the speed of sound is serious business for engineers designing materials for hypersonic space travel. As a UQ engineering student, you’ll be able to test what happens in space right here on campus.
UQ’S WOMEN IN ENGINEERING PROGRAM

Engineers solve problems for society. Therefore, the best engineering teams must reflect the diversity of the society they work in. The UQ Women in Engineering Program (WE) inspires young women to consider a career in engineering. WE assists you with your transition from high school student to university engineering student.

The UQ Women in Engineering Program:
• educates female high school students about engineering
• supports women studying engineering at UQ
• connects our female students and graduates with industry players for a smooth transition into the workforce.

UQ is the university of choice for women studying engineering
• Since 2013, WE has engaged with more than 5000 female high school students, welcomed more than 1000 females to UQ engineering programs and increased the percentage of female students to 22.5 per cent, well above the national average of approximately 15 per cent.
• The number of women failing to complete their studies engineering at UQ has been less than 0.5 per cent for the last five years.
• In 2015, WE won an Engineers Australia Women in Engineering award for Most Encouraging Student Group and received a commendation for UQ’s Excellence Award in Diversity and Inclusion.
• A record 26 per cent of UQ’s engineering graduates were female at the 2017 December graduations.
• Our program is strongly supported by industry and has direct access to employers committed to increasing female participation in engineering.

Connect with WE while you are still at school
• 3 May 2018: Join us at the St Lucia campus for the WE Explore Engineering Day and participate in hands-on workshops.
• 9–13 July 2018: Join us all week at St Lucia and find out what engineering is all about through workshops, field trips, panel discussions and campus tours.
• 23 August 2018: Come say hello at the Engineering and Tech Careers evening and hear from recent UQ engineering graduates.

Can’t make any of these on-campus events? Let your high school know that WE attends career fairs, career panel sessions and can do in-school presentations.
Connect with WE after you enrol at UQ

- You will get a phone call from one of our WE student leaders to welcome you to UQ and answer any questions about studying engineering at UQ.
- WE hosts special events in Orientation Week and throughout the year for first-year students to meet and connect with other engineering students.
- Apply to be a WE Student Leader and become an integral part of our program.

Did you know that at UQ, there are multiple scholarship opportunities, some specifically for women in engineering? scholarships.uq.edu.au

Would you like to know more?
we@eait.uq.edu.au
+ 61 7 3443 1654
eait.uq.edu.au/we
Facebook: UQWomeninEngineering

Proudly supported by our program partners:
All things computing
Whether you’re interested in software engineering, user experience (UX) design or data science and cyber security – UQ has a degree to meet your needs.
COMPUTING AT UQ

At UQ, you’ll gain the solid tech foundations and skills that industry demands and will become part of the creative, vibrant and important world of computing. You’ll be prepared to play a critical role in creating, developing, implementing and evaluating new systems and technology for use in our society.

Practical experience
We focus on making you workplace-ready. During your studies, you are encouraged to undertake industry placements, allowing you to gain valuable experience and network with potential employers. You’ll graduate confident and ready to commence your dynamic career in computing.

Learning
Our award-winning teaching staff have helped make UQ one of the top teaching and learning institutions in Australia. UQ’s computing programs feature in the top tier of global universities.

UQ offers a wide range of exciting majors within the Bachelor of Computer Science and the Bachelor of Information Technology. You’ll be prepared to work with current and emerging technologies, as well as those that haven’t been developed yet.

Go global
Be part of a truly international experience and enjoy a career that can take you anywhere.

Industry-focused programs
In a progressive and innovative industry such as computing, employer requirements are constantly changing. To ensure you graduate with current and relevant skills, we develop our programs in consultation with industry leaders via an Industry Advisory Board. You’ll be prepared to respond to constant progression and understand the many facets of computing and information technology.

Each semester, guest speakers visit UQ to talk about their work and the latest trends. Guest speakers from past semesters include professionals from Google, Suncorp and software provider SAP.

Careers
Because computing is ubiquitous and international, there are a lot of career opportunities. Graduates typically work as analysts, programmers, designers (user experience, software, games and apps), developers, administrators, consultants, entrepreneurs or project managers. They work both on small teams to complete work within an organisation, or for agencies to complete work for external clients.

83.2% of graduates are in full-time employment*

* Computer and Information Systems – Quality indicators for learning and teaching (qilt.edu.au)
Interested in shaping the digital future? Gain the fundamental knowledge and practical skills to design, development and analyse computer-based systems.

What you will study
Computers are an indispensable part of finance, energy, transport and health and communications. Considering the widespread use of computers, it’s so easy to take them for granted. However, have you ever wondered how computer systems work so well? How can Google Maps load quickly even on a slow network? How do computers control your phones and cars? How can surgical devices reduce tremor in surgeons?

The Bachelor of Computer Science is a three-year program designed to provide you with a deeper understanding of all aspects of computer technology. As part of the program, you will combine theory with hands-on experience to learn how to create and analyse computer-based systems. You will develop strong analytical, logical, and development skills necessary to advance computing, its applications and beyond.

As part of the program, you can specialise in: cyber security, data science, machine learning, programming languages, or scientific computing.

Your future in computer science
As a computer science graduate, you will have the skills to play a key role in creating, developing, implementing and evaluating technology. As technology continues to evolve, the growing demand in this area provides opportunities in operating and supporting services in finance, energy, transport, health, communications and more. You can expect to find employment in a range of professions across any sector that utilises technology. You will be equipped with the foundational theory and practical skills to invent, develop and analyse such computational systems – systems that could affect billions of people worldwide.
CAREERS IN COMPUTER SCIENCE

Amazing jobs in Computer Science and Coding

Early to late career salary ranges

Security consultant
(computing/networking/information technology)
Entry-level: $53,727 – $119,692
Experienced: $87,077 – $226,800

Computer programmer
Entry-level: $39,832 – $84,278
Late-career: $65,439 – $195,700

Information security manager
Entry-level: $73,247 – $182,461
Late-career: $108,885 – $188,476

Senior data analyst
Entry-level: $65,191 – $114,229
Experienced: $69,365 – $139,107

Senior test analyst
(computer software)
Entry-level: $65,678 – $112,499
Late-career: $68,500 – $120,000

Did you know?
On average, a cyber crime attack costs a business in Australia $419,542 (Ponemon Institute 2015)
Australia’s Digital Pulse 2017 (Deloitte/Australian Computer Society)

Daniel Walton
Bachelor of Computer Science / Bachelor of Mathematics
Current student

“My interest in innovation and working with the newest technologies spurred my decision to study Computer Science alongside Mathematics at UQ. Majors such as Machine Learning, Cyber Security and Data Science will be at the forefront of the 21st century economy and will innovate the way we work and view the world. UQ provides the widest variety of courses and majors, has a fantastic reputation and is a natural fit for a Computer Science degree with its motto to ‘Create Change.’”
Bachelor of Computer Science

MAJORS

CYBER SECURITY

What you will study
As computers become increasingly interconnected and support more services than ever before, securing these systems becomes more challenging yet more crucial than ever. By studying cyber security, you will learn the fundamental processes and practices to protect computing systems – be it smartphones, engine control units of your car, computers or servers – from attack, damage or unauthorised access. You will study secure programming techniques and ethical hacking, to safeguard individuals, businesses and governments against cybercrime.

Careers
Our graduates will access exciting opportunities in diverse institutions and organisations. Cyber security specialists obtain roles in banking and financial organisations where they are involved in internal and external structures, shares, personal banking and fraud prevention. Employers such as Telstra and other telecommunications providers also employ technical experts to manage network security.

DATA SCIENCE

What you will study
Our world is recording more data than we have the ability to process, which presents enormous challenges associated with storage, management and analysis of data. Learn comprehensive and fundamental techniques for end-to-end processing that transforms data into information and become one of the new breed of data science professionals.

Careers
Data scientists often find rewarding careers in large customer-based organisations where an understanding of data and how it can be used is vital for business growth and meeting consumer needs. This highly flexible degree enables graduates to access roles in many business sectors with major employers including Google, Microsoft, government departments and private consultancies.

MACHINE LEARNING

What you will study
Machine learning is the study of algorithms that automatically improve performance with experience. Such algorithms allow computers to automatically identify and harness useful data to help decision making, find hidden insights without being explicitly programmed in where to look, predict outcomes of certain policies to help authorities design effective policies, and many more. This is a massive growth area as society looks for automated and continuous improvements on ways to enhance business and our lives through the use of computing systems and data.

Careers
Machine learning specialists are employed by world-leading organisations, governments and institutions. They are in high demand with employers, including technology innovators such as Google and Amazon. Graduates may access extensive career opportunities in the research field where data is used to solve problems of our modern world.
PROGRAMMING LANGUAGES

What you will study
Programming languages are the building blocks of software in computer science. Covering the different paradigms of programming, this major focuses on the design of computer languages that can be easily used to create programs. In this major, you will study the craft and science of programming, that will enable the construction of effective programming languages as well as correct and reliable software.

Careers
Specialist programmers are highly sought-after by companies with significant software or information technology infrastructure. These organisations may have in-house information technology sections that build their own code or develop applications across all platforms. Employers include world-leading organisations that focus on the interactions between people and computers such as Google, Apple and Oracle.

SCIENTIFIC COMPUTING

What you will study
In this major, you will study algorithms for mathematical analysis. All scientific endeavours, from biology and chemistry to pharmaceutical research, rely on such analysis. Computers hold the key for fast and efficient analysis of complex scientific problems. However, computers are digital systems, requiring discrete inputs and outputs, while mathematical analysis often relies on continuous functions. Therefore, careful approximations are necessary to enable computers to analyse complex mathematical functions used in various scientific endeavours, including in hospitals and university medical research and big pharmaceutical and petrochemical companies across the public and private sectors.

Careers
Scientific computing opens doors to global opportunities in the public and private health sectors. These include opportunities in university and medical research laboratories and institutes where career pathways focus on bio and nano technologies, molecular biology and other emerging fields. Graduates may also access roles in petrochemical and pharmaceutical companies and contribute to the development of new medications.

Professor Shazia Sadiq, from the School of Information Technology and Electrical Engineering, using the surface hub in UQ’s Data Science Lab.
A dual program gives you the flexibility to study several areas of interest at once. The additional knowledge and skills gained will give you a competitive edge in the workplace and significantly broaden your career possibilities. Dual programs can also be completed more quickly than two separate degrees, as students consolidate the core components of each program. Applicants for UQ dual programs must satisfy prerequisites and entry score requirements for both programs. You apply through normal QTAC application procedures. In some programs you can choose to undertake additional courses during the summer semesters to finish the program even quicker, by up to one semester.

**Computer Science / Arts**
Program duration: 4.25 years
Choose from a wide variety of majors to either complement your computer science studies or to broaden your knowledge in another field and expand your opportunities to work in different areas.

**Computer Science / Science**
Program duration: 4 years
By combining these two areas of study in a dual degree, you will get a focused background in science, along with specific practical and theoretical understandings relevant to your chosen field in computer science.

**Engineering (Honours) / Computer Science**
Program duration: 5.5 years
This dual degree allows students to combine studies in engineering with emerging computer science technologies such as cyber security, data science and artificial intelligence.

**Mathematics / Computer Science**
Program duration: 4 years
The dual four-year program provides students with a focused background in computer science along with the in-depth knowledge of a mathematics degree.

**Business Management / Information Technology**
Program duration: 4 years
By combining these two areas of study, you will develop expertise in a niche field that offers a wide range of employment options and excellent opportunities for overseas employment.

**Commerce / Information Technology**
Program duration: 4 years
By combining these two areas of study in a dual degree, you will get a focused background in commerce, along with specific practical and theoretical understandings relevant to your chosen field in IT.
Benefits of dual programs

Get an edge
As a dual program graduate, you will have a competitive advantage with employers and will broaden your prospective employment to a wider range of industries.

Save time
Graduate with two bachelor programs in as little as four years – a much shorter time than it would take to study both programs separately.

Strike a balance
Why compromise when you can balance your studies and your sanity by pursuing both your career ambitions and passions? Dual program students appreciate the diversity of topics offered in their two different programs.

Engineering (Honours) / Information Technology
Program duration: 5.5 years
This dual program is ideal if you wish to combine the theory and practice of modern computing with another field in engineering. This program is available with Engineering single majors in Chemical, Civil, Electrical, Mechanical or Mining Engineering, and dual or extended majors in Electrical and Biomedical, Electrical and Computer, and Mechatronics.

Information Technology / Arts
Program duration: 4 years
This program allows combinations of the humanities and IT. It is an excellent plan if you want to combine languages, education, communication or other areas of interest with an IT base.

Information Technology / Science
Program duration: 4 years
An excellent combination if you want a career that involves the technical understanding of IT and in-depth knowledge in one or two scientific disciplines.

Mathematics / Information Technology
Program duration: 4 years
Apply your specialised mathematical knowledge and analytical skills to solve computational and data processing problems.
See page 43 for a summary of entry information.
Bachelor of Information Technology

The future needs big ideas, fast movers and people with creativity and talent. UQ’s Bachelor of Information Technology will give you the specialised skills and knowledge to meet the needs of a rapidly changing world.

What you will study

Never before have technological changes been faster or more fundamental. From tracking your health using wearable technology to accessing and managing your data in the cloud, information technology is at the core of our new, connected era.

UQ’s Bachelor of Information Technology is a flexible, project-focused degree that provides you with the skills and knowledge to take on the new wave of digital roles. UQ’s Bachelor of Information Technology builds on a solid foundation in software and hardware. Through flexible study plans, you can specialise in areas including computer systems and networks, enterprise information systems, software design and user experience design.

Your future in information technology

With an IT degree, your career possibilities are endless. IT skills are applied to a diverse range of applications in a large number of industries, from e-commerce to developing computer games. As a UQ IT graduate, you can find yourself working in systems and software development as an analyst, architect, designer, developer, programmer or project manager. You can also be involved in managing sophisticated computing facilities, such as distributed computer systems implemented over complex computer networks, or business information systems supported by large databases. Your knowledge and skills in IT can also take you abroad, working internationally.

With teaching informed by the latest research, you’ll develop the ability to process data or information in order to solve problems. You’ll study programming languages, algorithms and information structures and be job-ready for just about every industry. Besides technical skills, you’ll also learn team dynamics, presentation skills and project management.

Did you know?

The digital technology sector is one of the fastest growing parts of Australia’s economy.

11 of the 20 most valuable brands in the world are tech companies.

Forbes, 2017

<table>
<thead>
<tr>
<th>QTAC CODE</th>
<th>UQ CODE</th>
<th>MINIMUM SELECTION THRESHOLD 2018 OP / RANK / IB</th>
<th>LOWEST OP / RANK TO RECEIVE AN OFFER 2018 ADJUSTED</th>
<th>UNADJUSTED</th>
<th>DURATION</th>
<th>START SEMESTER</th>
<th>CAMPUS</th>
<th>HONOURS</th>
<th>DUAL PROGRAM AVAILABLE</th>
<th>ADMISSION REQUIREMENTS</th>
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<tr>
<td>733001</td>
<td>2230</td>
<td>7 / 86 / 31</td>
<td>7 / 86</td>
<td>9 / 81</td>
<td>3 years full-time (or part-time equivalent)</td>
<td>1, 2</td>
<td>St Lucia</td>
<td>Additional year of study</td>
<td>Arts, Business Management, Commerce, Engineering (Honours), Mathematics, Science</td>
<td>Queensland Year 12 or equivalent English, Mathematics B</td>
</tr>
</tbody>
</table>

See ‘Program table explained’ on page 56
FELIX LEE
Bachelor of Information Technology
Product Designer, NetEngine, Brisbane

“Even though it is a cliché, I first chose to study the Bachelor of Information Technology at UQ because I wanted to design and build games. Some time in my second year I realised that there is much more to what the program offers. While pursuing my degree, I learnt that all digital products create a certain feeling, thought and emotion for the people who use them. Since then, all I have wanted to do is design products that create a positive experience and delight users. Now, I get to do what I love every day at work.

The design studio courses I took at UQ shaped my thinking and approach to tackling complex problems. Also, social events such as networking sessions and study groups at UQ helped me a great deal. It developed my confidence and soft skills before I entered the workforce.

The main reason that I chose to study at UQ was their reputation for academic standards and innovative teaching methods. Furthermore, the willingness of the lecturers, tutors, and other students to help is astonishing. I forged strong friendships with the people I collaborated with to create great work.”

CAREERS IN IT

Amazing jobs in IT
Early to late career salary ranges

Information architect
Entry-level: $95,000 – $123,650
Experienced: $192,468 – $254,230

User interface designer
Entry-level: $48,667 – $77,398
Experienced: $71,749 – $123,650

Mobile app developer
Entry-level: $43,731 – $87,000
Experienced: $80,537 – $165,284

User experience designer
Entry-level: $45,837 – $96,763
Experienced: $76,291 – $195,000

Systems administrator
Entry-level: $45,132 – $83,388
Experienced: $57,959 – $104,430

Technical writer
Entry-level: $44,721 – $89,589
Late-career: $74,748 – $179,144

Data analyst
Entry-level: $46,412 – $86,920
Late-career: $61,349 – $172,350

Search engine optimisation manager
Entry-level: $47,145 – $91,231
Mid-career: $59,392 – $195,000

Payscale.com 2018. All figures are in Australian dollars.
What you will study
Enterprise information systems power businesses and organisations. The Enterprise Information Systems major provides you with a strong foundation in designing enterprise-wide and multi-enterprise information systems. You’ll also study a range of business electives. During your studies, you’ll not only learn how to create large, effective and efficient information systems, but also how to incorporate business process and management knowledge into the system’s development in order to maximise the system’s performance.

Careers
As an Enterprise Information Systems graduate, you can expect to work in software development companies and/or companies where information systems are deployed, which includes almost all business and government organisations. Job titles for the enterprise information system specialisation typically include business information analyst, database developer, database administrator, database administrator, IT project manager and software developer.
SOFTWARE INFORMATION SYSTEMS

**What you will study**

Information systems are integral to almost every business and government organisation. In this major you will develop the skills to design and build the information systems that are used everywhere in our modern life: in retail, banking, healthcare, transport, education, entertainment, science and engineering. This major is designed for students who wish to pursue a career in developing and managing database-oriented information systems. Learn about cutting-edge approaches to large-scale database design, including systems which span multiple organisations.

**Careers**

Software Information System graduates can expect to work in software development companies and/or companies where information systems are deployed, which includes almost all business and government organisations. Job titles for the software information system specialisation typically include database developer, information analyst or database administrator.

COMPUTER SYSTEMS AND NETWORKS

**What you will study**

Distributed computing platforms and communication technologies have a profound impact on the design, development, reliability and performance of computer applications. With the increasing variety of computing devices (including embedded computing devices, sensors, smartphones, laptops and workstations) and multiple networking technologies that connect these devices, there is a growing demand for virtualisation of computing platforms and operating systems to manage this diversity. This major will teach you how software is controlled on one or many computers, including security, networking and operating systems. Courses focus on programming, computer architecture, computer networks, operating systems, distributed computing and systems security, as well as a variety of distributed software applications (internet applications, mobile computing, embedded computing and ubiquitous computing).

**Careers**

You can find yourself working in software development companies, business enterprises, government departments and research organisations. You can have a career in the security, design and management of new cutting-edge computer systems and integration of large-scale distributed computing systems.
OTHER PATHWAYS TO A CAREER IN COMPUTING

At UQ, there are a number of pathways to get you into an exciting career in computing.

BACHELOR OF ENGINEERING (HONOURS)

Why study engineering as a pathway to computing?
If you pursue in-depth studies in the traditional areas of software and hardware, you will find the four-year Bachelor of Engineering (Honours) degree provides a respected qualification for entry into either the IT or engineering professions.

What you will study
The Bachelor of Engineering (Honours) program offers the largest choice of engineering majors in Queensland.

Computing-related majors are listed as follows:

**Software Engineering**
You will study the complexities associated with large-scale, high-quality software: technical construction; size and complexity; cooperation between developers, clients and users; and evolution of software over time to maintain its value.

**Electrical and Computer Engineering**
You will develop skills in electrical engineering, computer engineering and information technology, in conjunction with professional skills.

**Mechatronic Engineering**
This major provides a broad-based education in the basic principles of electrical, mechanical and computer engineering. You can choose from a range of electives covering areas such as engineering analysis and design, engineering mechanics, dynamics and automatic control, signals and communication, electrical hardware and computer software.

BACHELOR OF SCIENCE (COMPUTER SCIENCE)

Why study Science as a computing option?
Advances in many areas of modern science are increasingly driven by computing. Including computing studies within the Bachelor of Science allows you to expand your career opportunities for a scientific career and gives you a very flexible degree program where you can tailor your studies to your individual needs and select courses from science, information technology and other disciplines across the University.

What you will study
In the Bachelor of Science you can study:

- A computer science major (single or extended), which provides core computing courses in programming and information systems
- A dual major in computational science. In this major, the emphasis is on science. You select any single major from the Bachelor of Science program and combine it with a number of computational science courses that emphasise the use of computing as a tool to facilitate solving scientific problems.
## Benefits of dual programs

**Broaden your skills**  
A dual degree will equip you with the skills and self-confidence to effectively manage a wide range of competitive environments.

**Learn from the best**  
By studying in two disciplines, you will benefit from exposure to a more diverse range of UQ’s outstanding teachers and researchers.

### 17 engineering and computing dual program combinations available

<table>
<thead>
<tr>
<th>QTAC CODE</th>
<th>DURATION (YEARS)</th>
<th>MINIMUM SELECTION THRESHOLD 2018 OP / RANK / IB</th>
<th>LOWEST OP / RANK TO RECEIVE AN OFFER 2018 ADJUSTED</th>
<th>UNADJUSTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Management / Information Technology 710401</td>
<td>4</td>
<td>7 / 86 / 31</td>
<td>7 / 86</td>
<td>8 / 94</td>
</tr>
<tr>
<td>Commerce / Information Technology 71121</td>
<td>4</td>
<td>6 / 89 / 32</td>
<td>6 / 89</td>
<td>6 / 89</td>
</tr>
<tr>
<td>Computer Science / Arts 733501</td>
<td>2.5</td>
<td>7 / 86 / 31</td>
<td>6 / 89</td>
<td>7 / 87</td>
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<tr>
<td>Computer Science / Science 733601</td>
<td>4</td>
<td>7 / 86 / 31</td>
<td>5 / 92</td>
<td>6 / 89</td>
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<tr>
<td>Engineering (Honours) / Arts 717401</td>
<td>5.5</td>
<td>7 / 86 / 31</td>
<td>7 / 86</td>
<td>8 / 84</td>
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<tr>
<td>Engineering (Honours) / Biotechnology (Honours) 717501</td>
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<td>7 / 86 / 31</td>
<td>7 / 86</td>
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<td>7 / 86</td>
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<tr>
<td>Engineering (Honours) / Computer Science 717701</td>
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<td>7 / 86 / 31</td>
<td>7 / 86</td>
<td>8 / 84</td>
</tr>
<tr>
<td>Engineering (Honours) / Economics 717601</td>
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<td>6 / 89</td>
</tr>
<tr>
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<td>7 / 86</td>
<td>9 / 81</td>
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<tr>
<td>Engineering (Honours) / Mathematics 71901</td>
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<td>4 / 93 / 35</td>
<td>4 / 93</td>
<td>6 / 89</td>
</tr>
<tr>
<td>Engineering (Honours) / Science 71701</td>
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<td>7 / 86 / 31</td>
<td>7 / 86</td>
<td>8 / 84</td>
</tr>
<tr>
<td>Information Technology / Arts 733201</td>
<td>4</td>
<td>7 / 86 / 31</td>
<td>7 / 86</td>
<td>8 / 84</td>
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<tr>
<td>Information Technology / Science 733301</td>
<td>4</td>
<td>7 / 86 / 31</td>
<td>7 / 86</td>
<td>8 / 84</td>
</tr>
<tr>
<td>Mathematics / Information Technology 714411</td>
<td>4</td>
<td>4 / 93 / 35</td>
<td>4 / 93</td>
<td>5 / 91</td>
</tr>
</tbody>
</table>

* OP Guarantee does not apply to these programs.
## APPLY FOR A SCHOLARSHIP

Make your UQ experience more affordable with the support of a scholarship. You may not think you’re eligible for a scholarship, but you might be surprised!

<table>
<thead>
<tr>
<th>SCHOLARSHIP</th>
<th>PURPOSE</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agility Applications Regional QLD ICT Scholarship</td>
<td>To encourage and support first- and second-year students from regional areas to pursue a Bachelor of Computer Science, Bachelor of Information Technology or Bachelor of Engineering (Honours) majoring in electrical and computer or software.</td>
<td>$8000 for one year</td>
</tr>
<tr>
<td>Electrical Engineering Alumni Advantage Scholarship</td>
<td>To encourage and support first-year students undertaking the Bachelor of Engineering (Honours) program (including a dual program) in the field of electrical engineering from an ‘under-represented’ cohort – this means that the student will be facing financial disadvantage, and/or is female, and/or is Indigenous.</td>
<td>$3000 for one year</td>
</tr>
<tr>
<td>ICT Excellence Scholarship in Information Technology and Electrical Engineering</td>
<td>To encourage and assist first-year students studying a Bachelor of Computer Science, Bachelor of Information Technology, Bachelor of Engineering (Honours) majoring in electrical, electrical and biomedical, electrical and computer, mechatronic or software engineering, or the Bachelor of Engineering (Honours) / Master of Engineering.</td>
<td>$3000 for one year</td>
</tr>
<tr>
<td>ICT Alumni Advantage Scholarship</td>
<td>To encourage and support first-year students undertaking a Bachelor of Computer Science, Bachelor of Information Technology or Bachelor of Engineering (Honours) majoring in electrical or software (including a dual program involving one of these) from an ‘under-represented’ cohort – this means that the student will be facing financial disadvantage, and/or is female, and/or is Indigenous.</td>
<td>$3000 for one year</td>
</tr>
<tr>
<td>Kathy Hirschfeld Scholarship for Women in Engineering</td>
<td>To encourage and support a female student undertaking their first year of the Bachelor of Engineering (Honours) or Bachelor of Engineering (Honours) / Master of Engineering programs.</td>
<td>$5000 for one year</td>
</tr>
<tr>
<td>Leeanne Bond Scholarship for Women in Engineering</td>
<td>To encourage and support a female student in the first year of the Bachelor of Engineering (Honours) or Bachelor of Engineering (Honours) / Master of Engineering programs.</td>
<td>$5000 for one year</td>
</tr>
<tr>
<td>WSP Scholarship for Women in Engineering</td>
<td>To support female students undertaking their first year of the Bachelor of Engineering (Honours) or Bachelor of Engineering (Honours) / Master of Engineering who can demonstrate educational/financial disadvantage and/or geographic isolation.</td>
<td>$8000 for one year</td>
</tr>
<tr>
<td>The Pekol Family Scholarship for Women in Engineering and the Pekol Family Scholarship for Women in Maths and Science</td>
<td>To encourage and support first-year female students aspiring to undertake tertiary studies in engineering or science (in the fields of maths and physics) who are currently experiencing barriers to attending UQ.</td>
<td>$10000 annually for 4 years</td>
</tr>
<tr>
<td>RN Hammon Scholarships</td>
<td>To assist Australian Indigenous students to undertake post-secondary study in Queensland.</td>
<td>The value of the scholarship is determined each year.</td>
</tr>
<tr>
<td>Faculty of Engineering, Architecture and Information Technology Year 12 Overseas International Scholarships</td>
<td>To assist international students who have completed senior high school overseas.</td>
<td>50 per cent tuition fee reduction</td>
</tr>
</tbody>
</table>

Please note: All figures were correct at time of printing but are subject to changes; see scholarships.uq.edu.au prior to applying to confirm correct values.

### 200+ to choose from

UQ’s generous industry partners and private donors contribute to bring you a range of scholarships with varied criteria.

### Get in early

Scholarship applications close at different times throughout 2018 – plan your applications and apply early so you don’t miss out!

scholarships.uq.edu.au

To view all scholarships, visit scholarships.uq.edu.au and find out more about eligibility, value, selection criteria, and how and when to apply.
SEE THE WORLD
See the potential of the world. Gain the knowledge to make it better.

How to study overseas
The UQ Student Employability Centre can help you access a range of global experiences from exchange and short-term study, to international internships, volunteering and opportunities to represent UQ on the global stage. Within the UQ Student Employability Centre, the UQ Abroad team can help guide you through the application process and get you set for international success.
employability.uq.edu.au/global-experiences

Student exchange program
You can study overseas in a choice of 41 countries for up to one year, while still gaining credit towards your UQ degree. While you are on exchange, tuition fees at the host university are waived and you continue to pay fees and be enrolled at UQ. You can even apply for exchange scholarships and may be eligible for an OS-HELP loan to assist with airfares, accommodation, health insurance and living costs.

Short-term experiences
Want to study, work or live overseas for only a short time? With UQ Abroad’s short-term programs, you can have an amazing experience in a semester break. Some experiences at approved host universities in Asia, Europe, the USA or Latin America are eligible for academic credit towards your UQ program.

Universitas 21 student experiences
UQ is a member of Universitas 21 (U21), an international network of leading research-intensive universities. U21 facilitates student mobility opportunities. Apply to participate in U21 student experiences such as the Undergraduate Research Conference, Social Entrepreneur Corps program or Summer School.

JONATHAN (JACK) MARCHANT
Bachelor of Engineering (Honours) (Chemical) / Bachelor of Arts (French)
UQ Abroad exchange to Lund University, Sweden

“Going on exchange has been something I have wanted to do since starting university. Being a serial worrier, I initially had many reservations about going abroad. However, once in the winter wonderland of southern Sweden I found myself having an absolutely phenomenal experience.

UQ has provided me with many amazing opportunities to meet people all over the world who are studying in my field. The whole exchange experience has opened doors to opportunities, people and cultures, which would not have otherwise been opened if I had stayed in Brisbane. As a result, I am able to return home with new cultural and technical knowledge and ideas that will help my future career.”
Now is the best time to PREPARE FOR YOUR CAREER!

Rhys Thomson, Bachelor of Engineering (Honours) (Chemical) / Master of Engineering current student, on placement at Core Resources.
Our Student Employability Team collaborates with industry to provide useful information and assistance to help you develop the skills employers are looking for and get you ready for work.

The Engineering, Architecture and Information Technology (EAIT) Student Employability Team is driven by knowledge from successful collaboration with industry to deliver the best in employability information and assistance to empower students to develop career management skills for successful employment outcomes. Our specialised team brings years of industry experience in human resources, including graduate program management, and is here to assist you in building key employability skills. The team provides a range of services, including:

- access to employer information and job opportunities
- insight into career types and paths
- networking events with prospective employers
- professional practice guidance and access to jobs
- assistance with job applications, including resume and cover letter review and advice
- access to work experience and professional practice opportunities
- interview and assessment centre preparation, including practice sessions
- a wide range of employability workshops
- one-on-one consultations that are tailored to your specific employability needs
- student and industry-led panel evenings
- employer-led information presentations and workshops.

Contact us:
+61 7 3365 8534
employability@eait.uq.edu.au
eait.uq.edu.au/employability

Facebook: EAIT Student Employability
(for daily graduate jobs, professional practice and work experience opportunities, tips, upcoming workshops and events)

Get career ready
It’s never too early to start thinking about your employability. The EAIT Student Employability Team has advice and resources to help you through the recruitment process and prepare for your career.
EAIT SCHOLARS PROGRAM

The EAIT Scholars program provides the Faculty’s top students in engineering, architectural design and computing programs with enhanced academic, industry and cultural experiences.

Engineering, Architecture and Information Technology (EAIT) Scholars are academically gifted students who aspire to take their degree to the highest possible level.

The cohorts are defined as follows:
• Birrell Scholars (for Architectural Design students)
• Hawken Scholars (for Engineering students)
• Prentice Scholars (for IT and Computer Science students).

Students will be introduced to industry, community and corporate networks, and have the opportunity to further develop their skills and knowledge through priority access to research and industry-sponsored opportunities. The program also enables access to exclusive industry and research events including:
• annual leadership function
• industry networking colloquium opportunities
• exclusive boardroom lunches with senior members of industry
• student mentoring opportunities.

Through exposing this motivated and elite group of the Faculty’s top students to new networks and opportunities, we aim to further develop their skills, knowledge and experiences, in preparation for long-term leadership positions.

Program membership
All high-achieving students are invited to apply for a UQ Vice-Chancellor’s Scholarship, UQ Excellence Scholarship, or EAIT International Scholarship when enrolling in an Engineering, Architecture or Computing degree. Those who are successful in their application for these scholarships will become EAIT Scholars for their first year of study at UQ. For students in their second year of study onwards, the top five per cent of each cohort (measured by grade point average) will be selected and invited to participate in the EAIT Scholars program each year.

For more information
eait.uq.edu.au/eait-scholars

Brisbane EAIT Alumni Networking Drinks (left). Dave Cole, in Shanghai as part of UQ’s Idea Hub China Mobility Program (right).
VALUE BEYOND THE CLASSROOM

Through our strong partnerships with alumni, industry, government and business, you’ll gain access to unique and innovative opportunities as a student and beyond.

Student opportunities

**MEET a Mentor**

MEET a Mentor is an exciting initiative for current third- and fourth-year students and UQ engineering and computing graduates of more than ten years. The program aims to connect students with established alumni to motivate, encourage, empower and transform the next generation of engineering and computing professionals.

Students participating in the MEET a Mentor program will have the opportunity to:

- engage influential engineering and information technology professionals
- share the value of their expertise
- expand their networks
- give back and gain valuable experiences.

The program will assist with students’ career development and transition from university into the workforce, and engage business professionals in a mutually beneficial partnership. eait.uq.edu.au/meet-mentor

**UQ Idea Hub**

Budding student entrepreneurs can participate in a hands-on program through UQ Idea Hub. You can gain skills to progress projects to a prototype stage, ready for market testing and validation. As part of the program, students have access to an Entrepreneur in Residence, globally renowned industry mentors, and secure co-working space.

UQ Idea Hub also runs Startup Adventures in global hotspots, where selected students are provided with a scholarship in a four-week intensive international internship at some of the world’s most vibrant startup locations such as Tel Aviv and Shanghai. ideahub.uq.edu.au

Graduate opportunities

**‘Leaders of Influence’ Alumni Talk Series**

The EAIT ‘Leaders of Influence’ Alumni Talk Series engages high-calibre industry leaders to present to our alumni and community on current and critical issues that impact Australian and global engineering, architecture and information technology companies. Seminars are delivered in Brisbane, Sydney and Melbourne. Attendees can expect lively discussions, access to VIP speakers, and networking with fellow UQ alumni over light refreshments.

To stay up-to-date with upcoming events visit eait.uq.edu.au/alumni-events.

**Women in Engineering Alumni Network**

Building on the success of the UQ Women in Engineering Program, and delivering on our promise to maintain our position as the university of choice for women in engineering in Australia, our ‘Women in Engineering’ Alumni Ambassadors work in partnership with UQ to develop activities that engage their fellow alumni and foster a sense of UQ community and support among engineering graduates (male and female).

Our Alumni Ambassadors deliver and host a range of social and structured Brisbane-based events focused on issues of interest for women in the engineering industry. For more information visit eait.uq.edu.au/women-engineering/alumni-committee.
ARE YOU AN INTERNATIONAL STUDENT?

While a lot of information in this guide is relevant to you, certain key information may be different for international students.

You are an international student if you are:
• not a citizen of Australia or New Zealand, or
• not an Australian permanent resident, or
• a temporary resident (visa status) of Australia.

Eligibility for UQ study
For admission into undergraduate programs at UQ, you must have:
• completed secondary studies equivalent to Queensland Year 12 with a score comparable to the Queensland rank specified for your program
• satisfied individual program requirements (e.g. specific subject prerequisites, auditions or interviews)
• satisfied English language requirements.
If you do not meet these criteria, you might consider taking the Foundation Year bridging course offered by International Education Services (IES) or English language training offered by the Institute of Continuing and TESOL Education (ICTE-UQ).

Foundation Year bridging course
foundationyear.com

Institute of Continuing and TESOL Education
ict.e.uq.edu.au

English language requirements
future-students.uq.edu.au/applying/english-language-proficiency-requirements

Applying to UQ
A UQ degree is a qualification the world will recognise. If you’ve got the ability, commitment and ambition to make the most of UQ, then we want to hear from you.
future-students.uq.edu.au/apply

Study options at UQ
If you would like to know more about your study options at UQ, enquire through our online form and one of our UQ advisers will respond. Register for an advisory session. If you are in Brisbane, sign up for a campus tour.
We also have a range of publications, including the international undergraduate and postgraduate student guides to help you.

Ask UQ
future-students.uq.edu.au/ask

Advisory sessions
future-students.uq.edu.au/book-advisory-session

Campus tours
future-students.uq.edu.au/campus-tours

Program guides
future-students.uq.edu.au/publications-and-forms

Tuition fees
As an international student, you will pay tuition fees, a Student Services and Amenities Fee, and potentially other administrative fees. UQ has program-based tuition fees for coursework award programs, meaning that all courses within a program are charged at the same tuition fee rate per unit for a given academic year. Some programs also have additional costs.
future-students.uq.edu.au/apply/international/tuition-fees

Other expenses
International students applying to study in Australia must have a student visa or an alternative visa that enables them to study full-time on campus. Please consider expenses such as visa and medical (pre-departure) fees, tuition fees, general living expenses, return airfares, and Overseas Student Health Cover (OSHC) when you plan your budget.
future-students.uq.edu.au/international/cost-living

UQ has more than 15,400 international students from 141 countries
GETTING HERE

Our campuses are easy to access using public transport.

Cycling and walking

- Park securely at UQ St Lucia Bikebox facilities or bike racks
- Plan your route: pf.uq.edu.au/cycling
- Walk to UQ St Lucia from local suburbs or via the Eleanor Schonell Bridge

Travel options to UQ campuses

<table>
<thead>
<tr>
<th>UQ ST LUCIA</th>
<th>UQ GATTON</th>
<th>UQ HERSTON</th>
</tr>
</thead>
<tbody>
<tr>
<td>7km from the CBD</td>
<td>5km from Gatton CBD 1 hour from Brisbane</td>
<td>5km from the CBD</td>
</tr>
<tr>
<td>10+ direct bus routes</td>
<td>30 mins from Toowoomba</td>
<td>2 mins to inner Northern busway from the CBD</td>
</tr>
<tr>
<td>One arrives every 2 mins at the UQ Lakes bus stop</td>
<td>4+ intercampus buses daily</td>
<td></td>
</tr>
<tr>
<td>5+ train stations within 4km</td>
<td>Rail–bus service runs between Brisbane and Gatton</td>
<td>3+ train stations within 2kms</td>
</tr>
<tr>
<td>15 mins between each ferry</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

UQnav app

Download the UQnav app or view our interactive, searchable maps to help you navigate around our campuses.

pf.uq.edu.au/uqnav

CellOPark app

Download the app to make parking at UQ easier.

Note that parking at UQ St Lucia and UQ Herston is extremely limited.

View fees and charges for parking.

pf.uq.edu.au/parking

MyTransLink app

Download the MyTransLink app to plan your journey to UQ on public transport.

Concessions may be available.

translink.com.au
Fees and costs

Course fees and student contributions

Most undergraduate places at UQ are funded partly by the Australian Government (Commonwealth support) and partly by you (student contribution).

If you are an Australian or New Zealand citizen, or an Australian permanent resident and have a Commonwealth-supported place, you qualify for Commonwealth support.

International students pay full tuition fees. If you have a Commonwealth-supported place, your student contribution amount depends on the fee band level of the courses you choose (see table above right).

Fees are charged according to the courses you choose, not the program you are enrolled in, so it is not possible to publish a fixed fee for a program. Because most students can choose different electives during their program, costs will vary.

However, indicative annual fees are listed with each program on our Future Students website to help you plan your budget.

future-students.uq.edu.au/study/find-a-program

Fee bands

<table>
<thead>
<tr>
<th>BAND</th>
<th>AREA OF STUDY</th>
<th>ANNUAL STUDENT CONTRIBUTION*</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Law, accounting, administration, economics, commerce, dentistry, medicine, veterinary science</td>
<td>$10,754</td>
</tr>
<tr>
<td>2</td>
<td>Mathematics, statistics, computing, built environment, allied health, other health, science, engineering, surveying, agriculture</td>
<td>$9,185</td>
</tr>
<tr>
<td>1</td>
<td>Humanities, behavioural science, social studies, education, foreign languages, visual and performing arts, nursing, clinical psychology</td>
<td>$6,444</td>
</tr>
</tbody>
</table>

*2018 figures only, based on a full-time (16 unit) workload; figures indexed annually

Weekly cost of living

<table>
<thead>
<tr>
<th></th>
<th>STUDENT LIVING IN ONE-CAMPUS COLLEGE</th>
<th>STUDENT LIVING IN OFF-CAMPUS COMMERCIAL PRIVATE PROVIDER</th>
<th>STUDENT LIVING IN OFF-CAMPUS SHARE HOUSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent</td>
<td>$450–$700</td>
<td>$250–$520</td>
<td>$170–$250</td>
</tr>
<tr>
<td>Utilities – including gas, electricity and water</td>
<td>included in rent</td>
<td>most included in rent – check with individual provider</td>
<td>$10–$15</td>
</tr>
<tr>
<td>Food</td>
<td>included in rent</td>
<td>$100–$125</td>
<td>$100–$125</td>
</tr>
<tr>
<td>Mobile phone</td>
<td>$10–$15</td>
<td>$10–$15</td>
<td>$10–$15</td>
</tr>
<tr>
<td>Internet</td>
<td>included in rent</td>
<td>most included in rent</td>
<td>$5</td>
</tr>
<tr>
<td>Public transport</td>
<td>$10</td>
<td>$20–$25</td>
<td>$20–$25</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$470–$725</td>
<td>$380–$685</td>
<td>$315–$435</td>
</tr>
</tbody>
</table>

General living costs and off-campus fees sourced April 2017 from: numbeo.com/cost-of-living/in/Brisbane

Student Services and Amenities Fee

The Student Services and Amenities Fee (SSAF) is a compulsory fee that is used to subsidise, support or fund non-academic services for students, such as support services, advocacy, study skills, career development and employability.

UQ levies the SSAF – which is capped at a maximum of $298 for 2018 – according to whether you are an internal or external student, and full-time or part-time. The fee is indexed annually.

tinyurl.com/ybtamobc
Keeping your costs down

- Investigate the financial support and fee payment options offered by Centrelink.
  humanservices.gov.au
- Apply for a tax file number, if you don’t already have one, which you will need to obtain a HECS-HELP or SA-HELP loan.
  ato.gov.au
- Explore the scholarships on offer (see page 44).
- Enjoy UQ Union’s free and low-cost entertainment and activities, such as Morning Marmalade and Kampus Kitchen.
  uqu.com.au
- Ask UQ’s Student Services about finding accommodation.
  accommodation.uq.edu.au liveuq.edu.au

Centrelink Student Services

Financial support for Australian tertiary students includes Youth Allowance, Austudy and ABSTUDY.

Apply for these payments at any Centrelink Customer Service Centre. Other financial assistance schemes include:

- Student Start-up Scholarship or Loan
- Relocation Scholarship
- Interest-free advance loan where part of the allowance is paid as a lump-sum advance
- Pensioner Education Supplement (PES)
- Low Income Health Care Card
- Fares Allowance
- Child Care Benefit (CCB) or Rebate, or JET Child Care Fee Assistance.

humanervices.gov.au

Other government assistance

If you’re an Australian student, you may be eligible to receive HECS-HELP – a loan from the Australian Government that allows you to defer paying for your degree until you earn above a certain income – or SA-HELP – an additional loan that allows you to add your SSAF to your accumulated HELP debt. You’ll need a tax file number to apply.

studyassist.gov.au

Fee calculator

UQ’s online fee calculator helps estimate your course fees.

Fees for 2019 are expected to be available from December 2018.

Before you enrol, faculty Academic Advisers can help you develop a study plan.

feecalculator.app.uq.edu.au

It all adds up!

Don’t forget to budget for accommodation, books, study materials and transport.

Insider Guides provides a helpful online Cost of Living Calculator to estimate your weekly, monthly and yearly living costs.

insiderguides.com.au/cost-of-living-calculator

Discounts

Get concessions and student discounts at participating retailers and institutions with your UQ student card.
APPLYING TO UQ

Follow the steps to apply to UQ and start on the path to your future.

STEP 1
Choose

- Search this guide on pages 4-42.
- Visit future-students.uq.edu.au.

TIP: Check that you meet all academic and other entry requirements and meet any specific program deadlines.

A range of study area guides and other UQ publications can help you choose the right program. future-students.uq.edu.au/publications-and-forms

STEP 2
Apply

Apply to study

Future students
Apply by visiting qtac.edu.au.

Current students at other universities
Apply by visiting future-students.uq.edu.au/apply.

TIP: Before applying, check that your current institution will give you transferable credit.

How to apply via QTAC
Apply for admission to UQ undergraduate programs through the Queensland Tertiary Admissions Centre (QTAC). The QTAC website explains how to apply and the entry requirements you need.
List up to six program preferences, but you will only receive one offer – for your highest preference that you are eligible for. Place programs in order of preference, placing your dream program first and your back-up options next.

STEP 3
Accept

Accept your offer
1. Log in by clicking ‘Applications’ and then ‘Apply here’ at qtac.edu.au.
2. Select ‘Apply here’ then login and enter your details.
3. Select the Accept offer option.
4. Accept your offer.
5. Activate your student account.
6. Go to my.uq.edu.au/starting-at-uq and follow the instructions.
7. Get excited about starting at UQ.
Enrol in courses
1. Access your program rules, course list and other helpful information by logging in to my.uq.edu.au/starting-at-uq.
2. Choose your courses at my.uq.edu.au/programs-courses.
3. Enrol online at sinet.uq.edu.au.
4. Plan your timetable and sign on to classes.
5. Pay fees (see page 52).

Prepare for Week 1
• Complete the steps on the Starting at UQ website, or download the UQ Checklist app to get organised.
  uq.edu.au/appcentral/uqchecklist
• Attend a Getting Started session.
• Check if you need to attend any program sessions before Orientation Week.
• Pick up your student ID card after you have enrolled.
• Answer any remaining questions before classes start by emailing starting@uq.edu.au.

Get ready for the ultimate university experience
• Prep Week – jump-start your university journey.
• Experience a taste of #uqlife during Orientation Week.
• Connect Week – join the social scene, make new friends and link in with your academic circle.
• Culture Week – experience UQ’s diverse culture and global networks.
• Success Week – learn about the resources available to help you succeed at UQ.
• Enrol for the UQ Employability Award. employability.uq.edu.au/award.
• Instagram (@uniofqld) or Snapchat (uniofqld) your UQ experience to your friends.

Are you an Aboriginal or Torres Strait Islander student?
Our Aboriginal and Torres Strait Islander Studies Unit can help you with:
• understanding your options
• choosing what to study
• applying for scholarships and entry.
atcis.uq.edu.au
You will join a network of more than 250,000 UQ graduates who are creating change in the world.

Stay in touch
No matter where you are, you can access our global network of alumni, giving you social, networking and professional development opportunities.
- Help the UQ Alumni and Community Engagement team facilitate networking events and create valuable strategic partnerships.
- Reconnect with friends and other UQ alumni at the UQ Young Alumni Ball.
- Attend UQ’s Global Leadership Series for lectures and discussions from great minds on issues that impact your community and shape the world.
- Apply for alumni membership of the library – the first year is free for new graduates.

More study?
Loved your degree? Want to go further?
UQ offers both coursework and research programs at postgraduate level.
You can study graduate certificates, graduate diplomas and master’s by coursework programs.

Higher degrees by research
Higher degrees by research (HDR) at UQ include Master of Philosophy (MPhil), Doctor of Philosophy (PhD), Doctor of Biotechnology (DBiotech) and Doctor of Veterinary Clinical Science (DVClinSc) and a number of professional doctorate programs. HDR students produce new knowledge and expertise that is innovative, relevant and progressive.

MicroMasters
UQ offers online MicroMasters designed to advance your career and offer a path to an accelerated master’s program.
Four MicroMasters programs are offered by UQ:
- Leadership in Global Development
- Business Leadership
- Corporate Innovation
- Sustainable Energy

PROGRAM TABLE EXPLAINED

<table>
<thead>
<tr>
<th>QTAC CODE</th>
<th>UQ CODE</th>
<th>MINIMUM SELECTION THRESHOLD 2018 OP / RANK / IB</th>
<th>LOWEST OP / RANK TO RECEIVE AN OFFER 2018 ADJUSTED</th>
<th>UNADJUSTED</th>
<th>DURATION</th>
<th>START SEMESTER</th>
<th>CAMPUS</th>
<th>HONOURS FT</th>
<th>DUAL PROGRAM AVAILABLE</th>
<th>ADMISSION REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>717001</td>
<td>2342</td>
<td>7 / 86 / 31</td>
<td>7 / 86</td>
<td>9 / 81</td>
<td>4 years</td>
<td>1, 2</td>
<td>St Lucia</td>
<td>Part of standard program, awarded based on weighted cumulative grade point average</td>
<td>Arts, Biotechnology (Honours), Business Management, Commerce, Computer Science, Economics, Information Technology, Mathematics, Science</td>
<td>Queensland Year 12 or equivalent English, Mathematics 8, plus one of Physics or Chemistry</td>
</tr>
</tbody>
</table>

ADJUSTMENT FACTORS
Previously referred to as ‘bonus points’, these are a numerical value added or used in combination with an OP or selection rank. Common adjustment factors may include subject adjustments, enrichment studies, or educational disadvantage.

Sample information only

**ADMISSION REQUIREMENTS**
Some programs require you to have completed specific subjects (or their equivalent) at school.
STUDY OPTIONS

UQ offers more than 80 exciting undergraduate programs and 60 dual programs to help build your dream career. For more details, check out our range of publications, or go to future-students.uq.edu.au

**Arts, Communication, Education and Society**
- Advanced Humanities (Honours)
- Arts
- Communication
- Criminology and Criminal Justice (Honours)
- Education (Primary)
- Education (Secondary)
- International Studies
- Journalism
- Music (Honours)
- Politics, Philosophy and Economics (Honours)
- Social Science

**Business, Economics and Law**
- Advanced Business (Honours)
- Advanced Finance and Economics (Honours)
- Business Management
- Commerce
- Economics
- International Hotel and Tourism Management
- Laws (Honours)
- Politics, Philosophy and Economics (Honours)

**Engineering and Computing**
- Computer Science
- Engineering
- Information Technology

**Health**
- Biomedical Science
- Clinical Exercise Physiology
- Dental Science
- Exercise and Nutrition Sciences
- Exercise and Sport Sciences
- Health Sciences
- Health, Sport and Physical Education
- Medicine
- Midwifery
- Nursing
- Occupational Therapy
- Pharmacy
- Physiotherapy
- Psychological Science
- Social Work
- Speech Pathology

**Science**
- Advanced Science
- Agribusiness
- Agricultural Science
- Biomedical Science
- Biotechnology
- Environmental Management
- Environmental Science
- Equine Science
- Food Technology
- Mathematics
- Occupational Health and Safety Science
- Regional and Town Planning
- Science
- Sustainable Agriculture
- Veterinary Science
- Veterinary Technology
- Wildlife Science

Central guides
- Australian Undergraduate (pictured left)
- International Undergraduate and Postgraduate (international students can visit future-students.uq.edu.au/publications-and-forms/international to access the latest international student guides)

Copies of these publications are available through UQ Admissions.

+61 7 3365 2203
admissions@uq.edu.au
future-students.uq.edu.au
Have a question about programs in this Guide?
Faculty of Engineering, Architecture and Information Technology
+61 7 3365 4777
enquiries@eait.uq.edu.au
eait.uq.edu.au

Have a question about living and studying at UQ?
Contact the Future Students
Contact Centre
+61 7 3346 9872
ask@uq.edu.au
future-students.uq.edu.au

Have a question about entry requirements and admission to UQ?
Contact UQ Admissions
+61 7 3365 2203
admissions@uq.edu.au
asd.uq.edu.au/admissions

Key dates
Tertiary Studies Expo (TSXPO)
RNA Showgrounds
Saturday and Sunday, 21–22 July 2018

UQ Open Day 2018
St Lucia campus Sunday, 5 August 2018
Gatton campus Sunday, 19 August 2018

QTAC closing date
For on-time applications
Thursday, 27 September 2018
(check qtac.edu.au for details)

Semester 1, 2019
Classes commence
Monday, 25 February 2019

CRICOS Provider Number 00025B

Cover: Evan Burns, Bachelor of Engineering (Honours) (Electrical and Biomedical) student.
Photographer: Marc Grimwade

Disclaimer
The inclusion in this publication of details of a program or a course creates no obligation on the part of the University to teach it as or when described. The University may discontinue or vary programs and courses at any time without notice. Information in this guide is accurate as at March 2018.

While care has been taken to provide accurate information in this prospectus, it is the responsibility of students to check and confirm the specific details of programs, courses and enrolment.

In the event of any conflict arising from information contained in this publication, the material approved by The University of Queensland Senate shall prevail.

Visit future-students.uq.edu.au for up-to-date program information.

All costs and fees quoted in this publication are in Australian dollars (AU$).

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Australian Consumer Protection
australia.gov.au

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