

## 2022 Undergraduate Programs

Architectural Design  
Computer Science  
Design  
Engineering (Honours)  
Information Technology  
Regional and Town Planning



CREATE CHANGE

# Engineering, Design, Computing, Architecture and Planning





3  
Campuses  
6  
Faculties

54,900+  
students from more than  
 140  
countries

#1 in Queensland  
for graduate  
employability

QS Graduate Employability Rankings 2020





#1

university  
in Australia in  
the prestigious  
*Nature* index



More national  
teaching awards  
than any other  
Australian university



State-of-the-art  
facilities







# Why study with us?

## 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 increases in the finance, energy, transport, health and communications sectors, now is the perfect time to study computing at UQ. In 2019, UQ celebrated 50 years of computer science, so you can be assured we have the experience and knowledge to teach you a high quality program which will enable you to develop 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, with some of the world's biggest corporations, including Apple, Google, Oracle 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.

## Choose Architecture and Design

As a progressive School of Architecture, we provide a balanced creative and practical education that prepares you for a successful career as an architect and designer. You'll have opportunities to study overseas and learn from international architects; get hands-on practical experience using 3D printers, robots and VR; gain industry experience in the best architectural practices; work on real projects with real clients; and develop skills in design for local and global contexts.

## Choose Regional and Town Planning

There are many ways to plan a city to balance competing priorities of development with preservation of the natural environment. At UQ, you can realise your goal of becoming an informed professional who makes well-advised planning and development decisions to meet the needs of communities. You will learn from some of Australia's best, in a program that is recognised by employers as delivering high-quality, experienced graduates. You will receive an industry-directed balance of theoretical knowledge and practical experience, from small-scale projects to comprehensive development schemes, often in conjunction with local authorities and community organisations. With many of Queensland's planning firms led by UQ graduates, it's no surprise that UQ's Bachelor of Regional and Town Planning is recognised as one of the leading planning programs, and a popular choice for those seeking a challenging and rewarding career. This program is accredited by the Planning Institute of Australia (PIA).





Photo taken by Yong Hooi Goh, Bachelor of Engineering (Honours) (Chemical) student.



## Getting you employed is our top priority

UQ is the best in Queensland for graduate employability\*

\*QS Graduate Employability Rankings, 2020



## 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

# Contents

Why study with us?	2
Andrew N. Liveris Academy for Innovation and Leadership	4
<b>Engineering</b>	
Your Engineering degree	7
More study options for greater career opportunities	8
Bachelor of Engineering (Honours)	8
Industry experiences throughout your degree	9
Bachelor of Engineering (Honours):	
Chemical Engineering	10
Civil Engineering	12
Electrical Engineering	14
Mechanical Engineering	16
Mechatronic Engineering	18
Software Engineering	20
Careers in Engineering	22
Alternative pathways	24
Pursue your interests	25
Bachelor of Engineering (Honours) / Master of Engineering	26
European double degrees	28
UQ Vertical Dual Degrees	29
Facilities	30
UQ's Women in Engineering program	32
<b>Computing</b>	
Your Computer Science degree	34
Bachelor of Computer Science	36
<b>Information Technology</b>	
Your Information Technology degree	38
Bachelor of Information Technology	40
EAIT Student Employability Team	43
<b>Architecture</b>	
Your life in Architecture	44
Bachelor of Architectural Design	46
How will you learn?	50
What you can do with a Bachelor of Architectural Design	51
<b>Design</b>	
Your life in Design	52
Bachelor of Design	54
<b>Planning</b>	
Your place in urban planning	56
Bachelor of Regional and Town Planning	58
Career ready	60
Apply for a scholarship	62
Are you an international student?	64
A truly global network	65
Applying to UQ	66
Plan your finances	67
Program table explained	68
Study options	69





## Andrew N. Liveris Academy for Innovation and Leadership

Building a generation of effective and inspiring leaders with a mindset geared towards creating a sustainable future.

### Mission

Current global challenges require sustained, rapid innovation on a broad scale, and the leadership to ensure implementation to effect societal change.

The Andrew N. Liveris Academy for Innovation and Leadership provides the environment and programs to deliver a pipeline of effective and creative leaders for the digital era with the capacity to contribute to a sustainable future.

At the heart of the Liveris Academy, is a deep commitment to inclusivity, impact, and courageous leadership.

The Academy will identify promising students with leadership potential and a passion for sustainability, help develop Liveris Scholars to become agile and courageous leaders, and equip them to discover and implement multidisciplinary solutions that address grand challenges in sustainability.

The Academy will offer a unique student experience including prestigious scholarships, structured leadership training, mentoring by visiting leaders, targeted professional practice placements, and a vibrant Liveris Scholar Alumni Network.

### Become a Scholar

Scholarship applications are invited from outstanding students with the potential to lead the development solutions to some of the world's most pressing sustainability challenges, with a mindset geared towards creating a sustainable future. For information about the Liveris Scholarships and to submit an application, please visit [scholarships.uq.edu.au](https://scholarships.uq.edu.au)

### More information

T +61 7 3346 3883

E [liverisacademy@uq.edu.au](mailto:liverisacademy@uq.edu.au)

W [eait.uq.edu.au/andrew-n-liveris-academy](https://eait.uq.edu.au/andrew-n-liveris-academy)



Artist impression of the Liveris Building.





# The future of engineering is changing. And so are we.

Over the last 18 months we've been busy reimagining the Bachelor of Engineering (Honours) program. We've talked with industry, alumni, our advisory boards, recent graduates and current students to ask them what skills future engineering graduates will need, and what the future of engineering will look like for these graduates.

From here, we've crafted a new curriculum that will place our graduates at the forefront of engineering in 2024, 2034 and beyond.





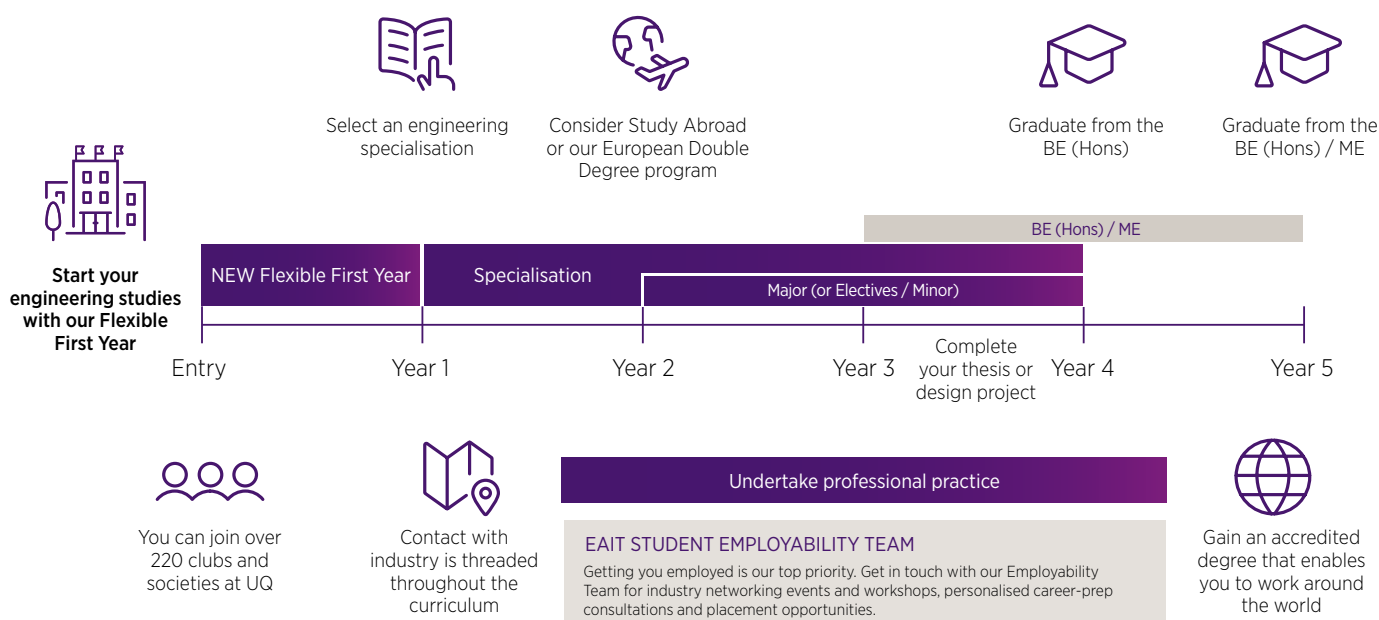
# Your Engineering degree

Intellectual boldness? Technological proficiency?

The power to solve society's challenges and create a better world?

Study engineering at UQ and you'll graduate with all these qualities, with the skills to use them in a career as remarkable as you are.

## Your journey as a student engineer



## Ranked

**1st**  
in Queensland  
for Engineering  
and Technology\*

\*QS World University Rankings  
by Subject, 2021

**82.9%**  
of current students are  
positive about their  
skills development\*

\*Student Experience 2019 and 2020



**Engineers improve the state of the world, amplify human capability and make people's lives safer and easier through the construction of roads, buildings and computers.**

Engineers Australia



# More study options for greater career opportunities.







**Whether it's about adapting to new trends and innovations, or moving seamlessly across sectors, we're offering an education that gives you flexibility – no matter what you choose to do.**

With a greater selection of courses, we're preparing you for the jobs of the future.

You now have the opportunity to complement your engineering specialisation with a major or minor in one of the new and emerging areas of engineering. You'll gain technical expertise, and sharpen your critical thinking and research skills to find answers to pressing questions.

Industry has told us that some of the biggest challenges facing graduates in the future is dealing with big data. Our response – we've introduced new courses in programming for all students to ensure you're prepared to meet the technological needs of the future.

## Bachelor of Engineering (Honours)

Specialisations						
						
Chemical Engineering	Civil Engineering	Electrical Engineering	Mechanical Engineering	Mechatronic Engineering	Software Engineering	
Majors						
Aerospace			✓			
Biomedical	✓		✓	✓		
Bioprocess	✓					
Computer		✓		✓	✓	
Environmental	✓	✓				
Fire Safety		✓	✓			
General Civil		✓				
Geotechnical		✓				
Materials	✓		✓			
Metallurgical	✓					
Mining		✓	✓	✓		
Structural		✓				
Transport		✓				
Water & Marine		✓				
Minors						
Computing	✓	✓	✓	✓	✓	
Data Science	✓	✓	✓	✓	✓	✓
Design	✓	✓	✓	✓	✓	✓



# Industry experiences throughout your degree.

## **Contact with industry is threaded throughout the curriculum.**

From your first semester, you will be hands-on in student labs, working on projects designed by professional engineers. Throughout your degree you will be supported by our Student Employability Team who can help you find that all-important graduate role. You will also have access to the latest

industry-grade equipment at our makerspace – UQ Innovate – a place where you can collaborate and create in a friendly and supportive environment.

You'll work in teams to design and prototype scalable solutions to real engineering problems across all disciplines. Whether it is an industry design project creating a process for producing biofuels, or hands-on design,

build and test experiences for biomedical applications, we are preparing you for your future – whatever it might be.

By embedding these experiences throughout your degree, when you graduate, you'll possess a distinct blend of creative and practical abilities. This will prepare you to deliver sustainable solutions that benefit communities all over the world.



Professor Justin Cooper-White,  
Head of the School of Chemical Engineering,  
researching tissue engineering.



Bachelor of

# Engineering (Honours) Chemical Engineering

Chemical engineers play a critical role in transforming raw materials into useful products such as healthy foods, clean water, metals, medicines and sustainable energy.

QTAC CODE	UQ CODE	MINIMUM SELECTION THRESHOLD 2021 <sup>c</sup> ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021 <sup>d</sup>		DURATION	START SEMESTER	CAMPUS	HONOURS	DUAL PROGRAM AVAILABLE	ADMISSION REQUIREMENTS
			ADJUSTED	UNADJUSTED						
717001	2455	86 / 31	86	81.25	4 years full-time (or part-time equivalent)	1, 2	St Lucia	Part of standard program, awarded based on weighted cumulative grade point average	Arts, Biotechnology, Business Management, Commerce, Computer Science, Design, Economics, Information Technology, Mathematics, Science	Qld Year 12 (or equivalent) General English subject (Units 3 & 4, C); Mathematical Methods (Units 3 & 4, C); and one of Chemistry or Physics (Units 3 & 4, C). Students studying Specialist Mathematics (Units 3 & 4, C) and both Physics and Chemistry will have increased flexibility in their studies.

See 'Program table explained' on page 68

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<sup>d</sup> Lowest ATAR to receive an offer refers to all recent secondary students who were offered a place for Semester 1, 2021. The lowest ATAR (Adjusted) refers to the ATAR plus any adjustment factors. The Lowest ATAR (Unadjusted) refers to the lowest ATAR excluding any adjustment factors.

## Top 2 in Australia for Chemical Engineering\*

\*QS World University Rankings by Subject, 2021

### 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 specialisation 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, and internships and placements with leading engineering companies, you will gain the knowledge, skills and industry connections needed to transition from university to the workplace.



*"I grew up in Brisbane and spent a lot of time at UQ through my high school years. I was impressed by UQ's Engineering Faculty, its national standing, the resources available and the opportunities presented to their students. When the time came to put down my QTAC preferences, I knew that UQ would be the top of my list for engineering."*

*Initially, I wasn't sure what type of engineering I would pursue – in my first year I tried a few different disciplines and quite enjoyed them all. I have always had a passion for sustainability, so I knew I would enjoy a discipline with an environmental focus, however I really decided on Chemical and Environmental Engineering when I realised I wanted to pursue a career in the energy space."*

### Kailin Graham

Bachelor of Engineering (Honours) (Chemical and Environmental)  
Australian Financial Review Top 100 Future Leader



## Expand your opportunities by studying Chemical engineering with a major or minor in:

### Majors:

#### Biomedical

Biomedical engineers create materials, devices and processes for better health outcomes. Applications include nanoparticles for precise delivery of medicines, bioprinted patient-specific tissues and organs, devices to detect and treat illnesses before they impact our health, and the large scale manufacture of immune cells to fight cancer or cardiac cells to treat a broken heart. This involves learning how to apply the critical and deep systems thinking intrinsic to chemical engineering design and processes to one of the most complicated and integrated biological systems we know – the human body.

#### Bioprocess

Bioprocess engineers create processes and products that support the development of a healthy and sustainable world. Bioprocess engineering combines the core principles of chemical engineering and biology for scalable production of medicines – such as vaccines during pandemics – foods, and beverages. The same principles are applied to treating wastewater and converting waste streams into valuable products, such as biofuels or biodegradable plastics. This involves engineering living cells to produce desirable products, and designing and optimising processes to manufacture bioproducts at scale to benefit society.

#### Environmental

Environmental engineers design sustainable technologies and processes. They apply engineering knowledge to environmental systems. Your studies will explore the challenges and opportunities of designing more sustainable products and processes, and how to evaluate and address trade-offs between environmental, social and economic indicators.

#### Materials

Materials engineers make new materials and improve existing materials by making them more functional, sustainable and affordable. They also develop strategies for effective reuse and recycling of products as we work towards a circular economy. You will learn how to design, select, and process materials to make valuable products. Your studies will explore a wide range of applications, from biomaterials and nanomaterials to 3D printing at scale.

#### Metallurgical

Metallurgical engineers play a vital role in developing, managing and improving the processes required to transform ore into metals and recycle metals into useful products. With a strong focus on efficiency and sustainability, these engineers are involved in the physical and chemical processing of metals from crushing, extraction and purification through to product development. In this major, you will study the modelling, design, and economics of resource industry processes.



**Chemical  
Engineering  
45th in the world**

\*QS World University Rankings by Subject, 2021

### Minors:

#### Computing

Computing influences all facets of life as we know it and will continue to evolve as industries strive to meet the challenges of today's world. If you're seeking to gain an advantage in your future direction by building on your understanding of computing, you'll find the computing minor a beneficial addition to your chosen specialisation.

#### Data Science

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. In this minor, you'll gain an understanding of the fundamental techniques for end-to-end processing to transform data into information alongside your engineering specialisation.

#### Design

This minor will allow you to develop a flexible range of skills to succeed in almost any industry. Incorporating foundational courses from the Bachelor of Design, you'll cultivate specialist capabilities in problem identification, critical thinking and designing for purpose. Learn the core principles of design across three hands-on design studio-based projects where you'll work in teams to collaborate, challenge assumptions, prototype innovative and sustainable solutions, and systematically solve problems in creative and new ways.

### For more information

Visit [future-students.uq.edu.au](https://future-students.uq.edu.au)  
or scan the QR code





Bachelor of

# Engineering (Honours) Civil Engineering

Unleash your creative vision and gain the specialised skills you need to design and build a world that is beautiful, functional and sustainable.

QTAC CODE	UQ CODE	MINIMUM SELECTION THRESHOLD 2021 <sup>*</sup> ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021 <sup>*</sup>		DURATION	START SEMESTER	CAMPUS	HONOURS	DUAL PROGRAM AVAILABLE	ADMISSION REQUIREMENTS
			ADJUSTED	UNADJUSTED						
717001	2455	86 / 31	86	81.25	4 years full-time (or part-time equivalent)	1, 2	St Lucia	Part of standard program, awarded based on weighted cumulative grade point average	Arts, Biotechnology, Business Management, Commerce, Computer Science, Design, Economics, Information Technology, Mathematics, Science	Qld Year 12 (or equivalent) General English subject (Units 3 & 4, C); Mathematical Methods (Units 3 & 4, C); and one of Chemistry or Physics (Units 3 & 4, C). Students studying Specialist Mathematics (Units 3 & 4, C) and both Physics and Chemistry will have increased flexibility in their studies.

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## What you will study

In civil engineering you will study how to plan, design, construct and maintain infrastructure such as buildings, dams, airports and transport networks. You will also learn how to protect and improve the natural environment while also meeting the changing needs of society.

The civil engineering specialisation enables you to develop technical skills in building materials, the design of structures, hydrology, geotechnical engineering, fire safety, marine and transport systems. This is complemented with an understanding

of natural systems and the analysis techniques used to examine how both the built and natural environments perform and adapt to environmental challenges such as climate change and associated shifts in rainfall, wind, flooding and natural disasters as well as future population needs.

With a focus on applying engineering expertise to develop practical solutions, combined with regular interactions with the civil engineering industry and world-class academic staff, you will gain the knowledge, skills and industry links that will enable you to immediately contribute to the engineering profession.

*"I was always infatuated with structures and architecture, I love city skylines and extraordinary engineering projects. I was lucky enough to have a teacher in high school who introduced the reality of engineering to me. I took his engineering course at school in year 11 and I knew I was set to be an engineer."*

*UQ has a well-structured first year that allows you to get a taste of different engineering disciplines. As a result of this for me, the move into the civil and then traffic field was made clear."*

### Casey Schackow

Bachelor of Engineering (Honours) (Civil)

Traffic Engineer, Cardno, Fortitude Valley



## Expand your opportunities by studying Civil engineering with a major or minor in:

### Majors:

#### Environmental

Civil engineers with a major in environmental engineering enhance the resilience and sustainability of our natural ecosystems and urban environments. This requires integration of technical innovations, design and development with an understanding of natural systems. You will explore how to assess, measure and develop solutions for managing resources such as energy, water, building materials, food and waste in an efficient and cost effective way without harming the environment.

#### Fire Safety

Fire safety engineers influence various aspects of the built environment, from the design of modern skyscrapers to the materials chosen to fabricate aeroplanes. UQ offers Australia's only dedicated fire safety engineering major that helps produce graduates who understand the design principles required to improve fire and life safety so we can build more resilient cities and communities.

#### General Civil

This major will develop your fundamental knowledge of all sub-disciplines of civil engineering. This means you will be well-placed to solve and manage engineering problems across the natural and built environments, including building design, dams and flood protection systems, analysis and design of earth structures and foundations, transport system design and analysis, and pollution management.

#### Geotechnical

The understanding and prediction of the behaviour of soil and rock as earth materials is imperative for creating safe, sustainable and economical civil engineering solutions. Geotechnical engineers apply scientific principles and engineering methods for developing civil engineering infrastructure on the surface and within the ground including prediction, mitigation and prevention of geological hazards.

#### Mining

Civil engineers with a major in mining engineering look at all phases of mining operations with a focus in geomechanics. From exploration and discovery, through feasibility, development, production, processing and marketing, to final land restoration and rehabilitation. Responsibility for the development and production phases of a mine requires a broad knowledge of all mining operations and skills in leadership and industrial relations.

#### Structural

Structural engineers must constantly evolve to anticipate the materials, environments, and technologies that will shape our future buildings. They use innovative materials and manufacturing methods to design efficient, adaptable, and sustainable building infrastructure. As this infrastructure must be resilient in the face of a changing environment, so structural engineers must also understand the future hazards and risks likely to arise, whether from cyclones, earthquakes, or other natural disasters.

#### Transport

Transport engineers work to make our everyday travel smarter and faster. They harness the power of big data analytics to learn more about how people travel around cities, and design new ways to shape their movement to reduce the density and congestion of our transport networks. This expanding information environment is also being harnessed by transport engineers to drive future mobility innovations, such as integration of autonomous and electric vehicles, and the use of predictive video analytics that can identify and prevent crashes.

#### Water and Marine

Coastal and hydraulic engineers design and protect our urban waterways, hydraulic structures, coastlines, and oceans. Advanced monitoring and modelling technologies allow them to predict and mitigate the risks of coastal flooding, land loss, and beach erosion.

### Minors:

#### Computing

Computing influences all facets of life as we know it and will continue to evolve as industries strive to meet the challenges of today's world. If you're seeking to gain an advantage in your future direction by building on your understanding of computing, you'll find the computing minor a beneficial addition to your chosen specialisation.

#### Data Science

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. In this minor, you'll gain an understanding of the fundamental techniques for end-to-end processing to transform data into information alongside your engineering specialisation.

#### Design

This minor will allow you to develop a flexible range of skills to succeed in almost any industry. Incorporating foundational courses from the Bachelor of Design, you'll cultivate specialist capabilities in problem identification, critical thinking and designing for purpose. Learn the core principles of design across three hands-on design studio-based projects where you'll work in teams to collaborate, challenge assumptions, prototype innovative and sustainable solutions, and systematically solve problems in creative and new ways.

#### For more information

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or scan the QR code



**Civil and Structural  
Engineering**  
**30th in the world**

\*QS World University Rankings by Subject, 2021





Bachelor of

# Engineering (Honours) Electrical Engineering

Are you passionate about renewable energy? Do you want to discover new ways to generate power? Are you interested in building digital devices that transmit data across the world?

QTAC CODE	UQ CODE	MINIMUM SELECTION THRESHOLD 2021 <sup>c</sup> ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021 <sup>b</sup>		DURATION	START SEMESTER	CAMPUS	HONOURS	DUAL PROGRAM AVAILABLE	ADMISSION REQUIREMENTS
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## What you will study

Within the electrical engineering specialisation, you will learn to design and manage equipment used in industries such as telecommunications, electricity generation, renewable energy and healthcare applications. You will have the opportunity to investigate embedded systems that contribute to almost every sector of society. These systems include smartphones, electrical power and renewable energy to provide electricity for our daily use, medical imaging

systems for improved healthcare, electrical appliances for homes, scientific instruments for laboratories, lasers for reliable high-speed communication, satellite systems for remote sensing of the environment, and reliable energy systems to power all of these.

With much of your coursework being hands-on, you will leave university with highly regarded specialist technical skills. This flexible and transportable degree will open opportunities with major companies across the globe.



**Across the globe, more than eight billion scans**

**have been completed using world-leading magnetic resonance imaging technology developed at UQ**



*"I chose my degree because I wanted to study something in medicine, but I also knew I was interested in engineering, so electrical and biomedical seemed like the perfect mix. Since graduating from UQ, I work as a biomedical engineer with a team of technicians, engineers and contractors in ensuring the functionality of key medical equipment used by the Queensland Ambulance Service."*

*Best advice to high school students? Try and get involved in extra-curricular activities and start building your professional network early. Getting involved also allows you to develop critical people skills that you will use as an engineer in the future."*

### Evan Burns

Bachelor of Engineering (Honours) (Electrical and Biomedical)  
Service Technician, Device Technologies



## Expand your opportunities by studying Electrical engineering with a major or minor in:

### Majors:

#### Biomedical

Biomedical engineers create materials, devices and processes for better health outcomes. They have revolutionised healthcare for entire populations with the invention of devices and machines such as pacemakers and ultrasounds. In fact, some may say that biomedical engineers are responsible for saving more lives than doctors.

Biomedical engineering combined with electrical engineering connects technology with medicine. This major incorporates all electrical engineering subjects with specialised coursework in the use of electronics in healthcare.

Your studies will include how to design, construct and maintain health-monitoring devices, and diagnostic systems such as magnetic resonance imaging (MRIs). 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.

#### 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, whitegoods, robots, communications equipment and satellites?

Computer engineers design and manage computer-based systems, including any device that has a computer embedded in it. That is almost every device these days, ranging from smart watches to smart home devices, smart home appliances to network routers and conventional desktop and laptop computers, to the hundreds of computer chips that can be found in modern cars and more that will be found in future self-driving cars.

This major will equip you with the skills and knowledge you need to claim your place within a high-growth industry.

During your studies, you will gain skills in digital logic design, computer networks, embedded and desktop operating systems, microcontroller selection and programming, electronics, telecommunications and signal processing.

### Minors:

#### Computing

Computing influences all facets of life as we know it and will continue to evolve as industries strive to meet the challenges of today's world. If you're seeking to gain an advantage in your future direction by building on your understanding of computing, you'll find the computing minor a beneficial addition to your chosen specialisation.

#### Data Science

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. In this minor, you'll gain an understanding of the fundamental techniques for end-to-end processing to transform data into information alongside your engineering specialisation.

#### Design

This minor will allow you to develop a flexible range of skills to succeed in almost any industry. Incorporating foundational courses from the Bachelor of Design, you'll cultivate specialist capabilities in problem identification, critical thinking and designing for purpose. Learn the core principles of design across three hands-on design studio-based projects where you'll work in teams to collaborate, challenge assumptions, prototype innovative and sustainable solutions, and systematically solve problems in creative and new ways.



**Neha Moturi**

Bachelor of Engineering (Honours) (Electrical)  
Graduate Electrical Engineer, Renewables Team, AECOM

*“Electrical engineering was particularly appealing to me as I had a special interest in the power industry.*

*UQ has equipped me with the knowledge and practical experience I needed to kick-start my career. My role requires me to work closely with a multi-disciplinary team of engineers and clients to deliver innovative, clean energy solutions.”*

#### For more information

Visit [future-students.uq.edu.au](https://future-students.uq.edu.au)  
or scan the QR code





Bachelor of

# Engineering (Honours) Mechanical Engineering

From planes, trains and automobiles through to artificial hearts, elevators and the world's largest power stations, mechanical engineering involves anything and everything with moving parts.

QTAC CODE	UQ CODE	MINIMUM SELECTION THRESHOLD 2021 <sup>†</sup> ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021 <sup>‡</sup>		DURATION	START SEMESTER	CAMPUS	HONOURS	DUAL PROGRAM AVAILABLE	ADMISSION REQUIREMENTS
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## What you will study

In this broad specialisation, 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.



## Boeing at UQ.

**Access the specially-designed, high-tech student interaction centre and gain first-hand experience in aeronautical engineering**





## Expand your opportunities by studying Mechanical engineering with a major or minor in:

### Majors:

#### Aerospace

Aerospace engineering is all about flight, whether that's planes, helicopters or rockets. Mechanical engineers with a major in aerospace engineering design more fuel-efficient aircraft that cut emissions, design the fleets of satellites that power modern GPS technology, and create the next generation of spacecraft for missions to Mars and beyond. You will learn how to design and manufacture aircraft, launch vehicles, satellites, drones, spacecraft and ground support facilities. This dynamic major incorporates industry-based project work to help ensure graduates futureproof their careers through the development of powerful industry connections and professional networks.

#### Biomedical

Biomedical engineers create materials, devices and processes for better health outcomes. Working in the biomedical industry, mechanical engineers change lives. They create better, more lifelike artificial limbs to improve quality of life for injured and disabled people. Pacemakers, artificial valves and even robotic surgical assistants are all the work of mechanical engineers, as are the running blades used at Paralympic events.

#### Fire Safety

Fire Safety influences various aspects of the built environment – from the design of modern skyscrapers to the materials

chosen to fabricate aeroplanes. This major develops the design principles required for applying fire safety engineering in the built environment to improve fire and life safety, and implement novel engineering solutions across multiple disciplines and industries.

#### Materials

Materials engineers improve the way we do things. They assess mechanical processes and find ways to make them more efficient, safer, and deliver better quality. This means they directly affect almost every major mechanical industry in the world, from water supply and oil and gas through to pharmaceuticals and food manufacturing. You will learn how to select, process and develop materials to design and make products, explore the impacts of temperature during processing, as well as the relationships between microstructures, mechanical properties, manufacturing and service performance.

#### Mining

As a mechanical engineer with a major in mining engineering, you will help ensure our communities have the vital metals and minerals we need for the steel frames in our buildings through to the microprocessors in our laptops. In this major, you'll cover the big-picture challenges facing the minerals, mining and resource industries.

You'll study the fundamentals of mining engineering as a major in mechanical engineering, giving you the foundational knowledge and more career opportunities in the resource sector.

### Minors:

#### Computing

Computing influences all facets of life as we know it and will continue to evolve as industries strive to meet the challenges of today's world. If you're seeking to gain an advantage in your future direction by building on your understanding of computing, you'll find the computing minor a beneficial addition to your chosen specialisation.

#### Data Science

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. In this minor, you'll gain an understanding of the fundamental techniques for end-to-end processing to transform data into information alongside your engineering specialisation.

#### Design

This minor will allow you to develop a flexible range of skills to succeed in almost any industry. Incorporating foundational courses from the Bachelor of Design, you'll cultivate specialist capabilities in problem identification, critical thinking and designing for purpose. Learn the core principles of design across three hands-on design studio-based projects where you'll work in teams to collaborate, challenge assumptions, prototype innovative and sustainable solutions, and systematically solve problems in creative and new ways.



*"I'd always been interested in STEM fields, but never felt overly passionate about it in high school. After some research, I discovered UQ's general first year program. I loved the idea of combining innovation and creativity with science, and that I could flexibly sample different discipline areas."*

#### Isabelle Fleming

Bachelor of Engineering (Honours) (Mechanical),  
current student

#### For more information

Visit [future-students.uq.edu.au](https://future-students.uq.edu.au)  
or scan the QR code





Bachelor of

# Engineering (Honours) Mechatronic Engineering

Are you ready for one of the most hands-on mechatronic degrees in Australia? Do you want to learn how to retrieve a submarine from the ocean floor or build an autonomous drone?

QTAC CODE	UQ CODE	MINIMUM SELECTION THRESHOLD 2021 <sup>4</sup> ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021 <sup>5</sup>		DURATION	START SEMESTER	CAMPUS	HONOURS	DUAL PROGRAM AVAILABLE	ADMISSION REQUIREMENTS
			ADJUSTED	UNADJUSTED						
717001	2455	86 / 31	86	81.25	4 years full-time (or part-time equivalent)	1, 2	St Lucia	Part of standard program, awarded based on weighted cumulative grade point average	Arts, Biotechnology, Business Management, Commerce, Computer Science, Design, Economics, Information Technology, Mathematics, Science	Qld Year 12 (or equivalent) General English subject (Units 3 & 4, C); Mathematical Methods (Units 3 & 4, C); and one of Chemistry or Physics (Units 3 & 4, C). Students studying Specialist Mathematics (Units 3 & 4, C) and both Physics and Chemistry will have increased flexibility in their studies.

See 'Program table explained' on page 68

<sup>4</sup> Minimum (adjusted) selection threshold 2021 is the minimum score that was considered for an offer of a place to all applicants.

<sup>5</sup> Lowest ATAR to receive an offer refers to all recent secondary students who were offered a place for Semester 1, 2021. The lowest ATAR (Adjusted) refers to the ATAR plus any adjustment factors. The Lowest ATAR (Unadjusted) refers to the lowest ATAR excluding any adjustment factors.

## What you will study

Are you ready for one of the most hands-on mechatronic degrees in Australia? Do you want to learn how to retrieve a submarine from the ocean floor or build an autonomous drone?

This specialisation begins with the study of design principles, mechatronic systems, theory, communication skills and ethics. Your studies will incorporate the dynamics and materials of mechanical engineering along with electrical elements such as circuit design.

You'll explore concepts and practical applications in areas including 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.

Each year you'll 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'll also complete a robotics project in your third year of study.



*"Reflecting on all the opportunities I had – studying engineering, science and languages, being a student leader, an executive member for a student society, studying abroad in Hong Kong and representing the uni through dance – I've realised there truly is something for everyone at UQ!"*

### Pamela Cheok

Bachelor of Engineering (Honours) (Mechatronic) / Bachelor of Science (Biomedical Science) / Diploma in Languages (Chinese)

Manufacturing Engineer II,  
Boston Scientific, Galway (Ireland)



**Combine robotics with computer science and take artificial intelligence to the next level.**



## Expand your opportunities by studying Mechatronic engineering with a major or minor in:

### Majors:

#### Computer

Mechatronic engineers with a major in computer engineering design and manage computer-based systems, including any device that has a computer embedded in it. That is almost every device these days, ranging from smart watches to smart home devices, smart home appliances to network routers and conventional desktop and laptop computers, to the hundreds of computer chips that can be found in modern cars, and more that will be found in future self-driving cars.

This major will equip you with the skills and knowledge you need to claim your place in a high-growth industry. During your studies, you will gain skills in digital logic design, computer networks, embedded and desktop operating systems, microcontroller selection and programming, electronics, telecommunications and signal processing.

#### Mining

Mining is one of the most technologically advanced industries in Australia and the future of the resource sector is automation. In this major, you'll explore concepts and practical applications in artificial intelligence, signal and system theory and control theory and how this is applied in the resources industry. You'll learn how to design and manufacture industrial robots and smart machines that are aware of their surroundings and can make informed decisions, leading to safer and more productive jobs.

### Minors:

#### Computing

Computing influences all facets of life as we know it and will continue to evolve as industries strive to meet the challenges of today's world. If you're seeking to gain an advantage in your future direction by building on your understanding of computing, you'll find the computing minor a beneficial addition to your chosen specialisation.

#### Data Science

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. In this minor, you'll gain an understanding of the fundamental techniques for end-to-end processing to transform data into information alongside your engineering specialisation.

#### Design

This minor will allow you to develop a flexible range of skills to succeed in almost any industry. Incorporating foundational courses from the Bachelor of Design, you'll cultivate specialist capabilities in problem identification, critical thinking and designing for purpose. Learn the core principles of design across three hands-on design studio-based projects where you'll work in teams to collaborate, challenge assumptions, prototype innovative and sustainable solutions, and systematically solve problems in creative and new ways.

Alan Kosinski, Bachelor of Engineering (Honours)/ Master of Engineering student, on placement at Skyborne.

#### For more information

Visit [future-students.uq.edu.au](https://future-students.uq.edu.au)  
or scan the QR code





Bachelor of

# Engineering (Honours) Software Engineering

In a digital future, the opportunities for software are as limitless as the human imagination.

QTAC CODE	UQ CODE	MINIMUM SELECTION THRESHOLD 2021 <sup>*</sup> ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021 <sup>†</sup>		DURATION	START SEMESTER	CAMPUS	HONOURS	DUAL PROGRAM AVAILABLE	ADMISSION REQUIREMENTS
			ADJUSTED	UNADJUSTED						
717001	2455	86 / 31	86	81.25	4 years full-time (or part-time equivalent)	1, 2	St Lucia	Part of standard program, awarded based on weighted cumulative grade point average	Arts, Biotechnology, Business Management, Commerce, Computer Science, Design, Economics, Information Technology, Mathematics, Science	Qld Year 12 (or equivalent) General English subject (Units 3 & 4, C); Mathematical Methods (Units 3 & 4, C); and one of Chemistry or Physics (Units 3 & 4, C). Students studying Specialist Mathematics (Units 3 & 4, C) and both Physics and Chemistry will have increased flexibility in their studies.

See 'Program table explained' on page 68

<sup>\*</sup> Minimum (adjusted) selection threshold 2021 is the minimum score that was considered for an offer of a place to all applicants.

<sup>†</sup> Lowest ATAR to receive an offer refers to all recent secondary students who were offered a place for Semester 1, 2021. The lowest ATAR (Adjusted) refers to the ATAR plus any adjustment factors. The Lowest ATAR (Unadjusted) refers to the lowest ATAR excluding any adjustment factors.

## What you will study

The software engineering specialisation 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. You will also use the principles of computer design, engineering, management, psychology and sociology in small or large multinational companies.

## Expand your opportunities by studying Software engineering with a major or minor in:

### Majors:

#### 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, whitegoods, robots, communications equipment and satellites?

Software engineers with a major in computer engineering design and manage computer-based systems, including any device that has a computer embedded in it. That is almost every device these days, ranging from smart watches to smart home devices, smart home appliances to network routers and

conventional desktop and laptop computers, to the hundreds of computer chips that can be found in modern cars, and more that will be found in future self-driving cars.

This major will equip you with the skills and knowledge you need to claim your place within a high-growth industry. During your studies, you will gain skills in digital logic design, computer networks, embedded and desktop operating systems, microcontroller selection and programming, electronics, telecommunications and signal processing.

### Minors:

#### Data Science

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. In this minor, you'll gain an understanding of the fundamental techniques for end-to-end processing to transform data into information alongside your engineering specialisation.

#### Design

This minor will allow you to develop a flexible range of skills to succeed in almost any industry. Incorporating foundational courses from the Bachelor of Design, you'll cultivate specialist capabilities in problem identification, critical thinking and designing for purpose. Learn the core principles of design across three hands-on design studio-based projects where you'll work in teams to collaborate, challenge assumptions, prototype innovative and sustainable solutions, and systematically solve problems in creative and new ways.





**Digital information  
is everywhere and  
has the capacity to  
revolutionise the  
way that we live.**

For more information  
Visit [future-students.uq.edu.au](https://future-students.uq.edu.au)  
or scan the QR code



# Careers in Engineering



Engineering the world's future – today, tomorrow and beyond.

Engineering is a dynamic and broad occupation that spans many industries and sectors. No matter what specialisation you choose to study, you'll be prepared for a global career solving tomorrow's most complex challenges.

## Advanced Manufacturing

Be part of a growing industry – think manufacturing of food and beverages, natural resources, plastics and automobiles.

### Relevant Specialisations:

Chemical Engineering

Bioprocess | Materials

Mechanical Engineering

Materials

## Built Environment

Looking to solve problems?  
This could be anything from protecting the planet to reimagining urban infrastructure, designing smart sustainable buildings or focusing on people and improving quality of life.

### Relevant Specialisations:

Civil Engineering

Environmental | Fire Safety

General Civil | Geotechnical

Structural | Transport | Water + Marine

## Digital Design + Technology

By encouraging your intellectual boldness, honing your technological skills, and bringing out your capacity to lead others, we'll prepare you for a lifetime of success in the digital design and technologies space.

### Relevant Specialisations:

Electrical Engineering

Computer

Mechatronic Engineering

Computer

Software Engineering

Computer

## Energy

Tackle global energy challenges and drive sustainable change.

### Relevant Specialisations:

Chemical Engineering

Environmental

Electrical Engineering

Computer

Mechatronic Engineering

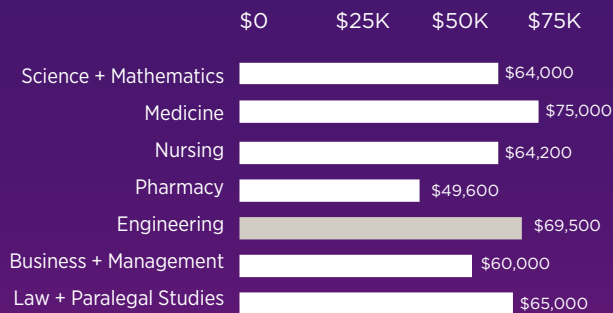
Computer

Software Engineering

Computer



## Starting salary by study area\*



\*Undergraduate median-full time salary 2020  
Graduate Outcomes Survey 2020

## Our engineering student experience

82.9% were positive about their skills development\*\*

84.5% were happy with facilities and resources\*\*

87.3% were satisfied with how their skills improved\*\*\*

\*\*Student Experience 2019 and 2020

\*\*\* Course Experience Questionnaire 2019-2020



### Environment

By the time you graduate, you'll possess a distinct blend of creative and practical abilities to make decisions grounded in sustainability.

#### Relevant Specialisations:

Chemical Engineering  
Bioprocess | Environmental

Civil Engineering  
Environmental

### Health

Join the exciting world of biomedical engineering and develop materials, devices and processes that improve and save people's lives.

#### Relevant Specialisations:

Chemical Engineering  
Biomedical

Electrical Engineering  
Biomedical

Mechanical Engineering  
Biomedical

### Resources

Through automation and sustainable processes, build the most environmentally-friendly and productive resources sector we've ever seen.

#### Relevant Specialisations:

Chemical Engineering  
Materials | Metallurgical

Civil Engineering  
Geotechnical | Mining

Mechanical Engineering  
Mining

Mechatronic Engineering  
Mining

### Space

A dynamic career in space could be anything from designing and manufacturing aircraft, satellites and drones, to developing more efficient and faster rockets.

#### Relevant Specialisations:

Electrical Engineering  
Computer

Mechanical Engineering  
Aerospace | Materials

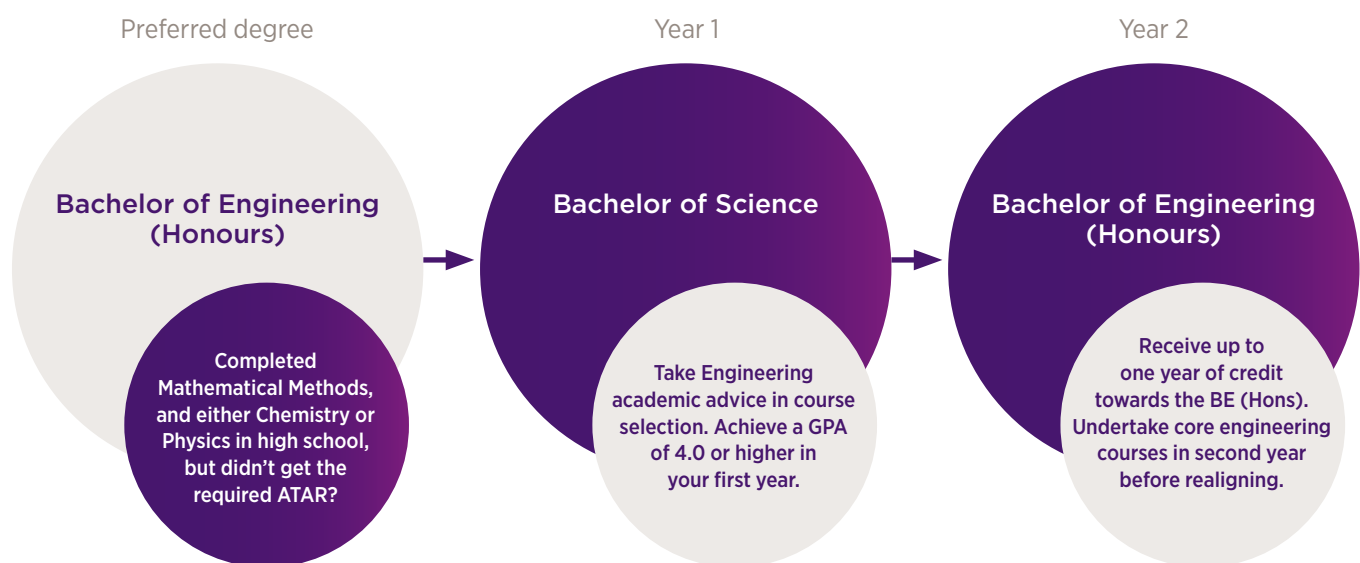
Mechatronic Engineering  
Computer

Software Engineering  
Computer

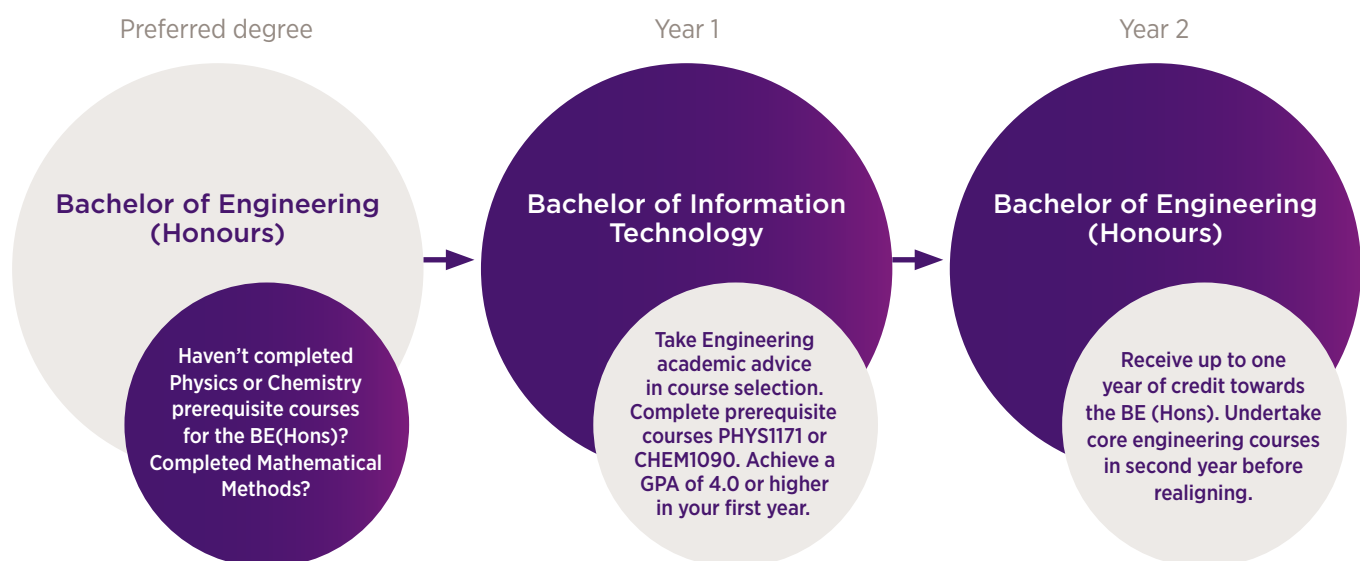
# Alternative pathways

## Bachelor of Engineering (Honours)

Didn't get a high enough ATAR?



Don't have the prerequisites?





# Pursue your interests

Broaden your employment prospects and pursue your interests by studying two programs at the same time.

As the world around you changes, new and fascinating career opportunities are created every day, and job roles increasingly combine multiple disciplines.

A dual program, also called a double degree, will equip you for this evolving job market. It also provides an opportunity for you to pursue your passions and interests.

QTAC CODE	DURATION (YEARS) <sup>x</sup>	MINIMUM SELECTION THRESHOLD 2021 <sup>y</sup> ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021 <sup>z</sup>	
			ADJUSTED	UNADJUSTED
Business Management / Design <sup>x</sup>				
709511	4	-- / --	--	--
Business Management / Information Technology				
710401	4	88 / 32	89.8	87.8
Commerce / Information Technology				
711621	4	88 / 32	88.65	86.65
Computer Science / Arts				
733501	4	88 / 32	90	90
Computer Science / Business Management				
733701	4	88 / 32	88.4	86.4
Computer Science / Commerce				
733801	4	88 / 32	91.3	90
Computer Science / Master of Cyber Security				
733411	4	97 / 39	97.45	95.45
Computer Science / Master of Data Science				
733421	4	97 / 39	99.3	97.3
Computer Science / Laws (Honours)				
733901	5	97 / 39	98.7	96.7
Computer Science / Science				
733601	4	88 / 32	88	86

QTAC CODE	DURATION (YEARS) <sup>x</sup>	MINIMUM SELECTION THRESHOLD 2021 <sup>y</sup> ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021 <sup>z</sup>	
			ADJUSTED	UNADJUSTED
Engineering (Honours) / Arts				
717401	5.5	86* / 31*	89.1	85.1
Engineering (Honours) / Biotechnology				
717501	5.5	86* / 31*	86.25	84.25
Engineering (Honours) / Business Management				
717301	5.5	86* / 31*	86.3	84.3
Engineering (Honours) / Commerce				
717201	5.5	86 / 31	86.85	83.15
Engineering (Honours) / Computer Science				
717721	5.5	88 / 32	88.25	86.25
Engineering (Honours) / Design <sup>x</sup>				
717121	5.5	86 / 31	91.85	89.85
Engineering (Honours) / Economics				
717601	5.5	86 / 31	86.05	86.05
Engineering (Honours) / Information Technology				
717701	5.5	88 / 32	89.5	85.45
Engineering (Honours) / Mathematics				
717901	5	94 / 36	94.85	91.15
Engineering (Honours) / Science				
717101	5	86* / 31*	86	84
Information Technology / Arts				
733201	4	88 / 32	89.3	87.15
Information Technology / Science				
733301	4	88 / 32	88.9	86.9
Mathematics / Computer Science				
714421	4	94 / 36	94	90

<sup>x</sup> Selected dual program will be offered for the first time in 2021. An applicant must obtain entry to the program having the highest entry requirement. For 2021 entry, the threshold for the Bachelor of Design was 86.00. Please note that dual programs often require a higher threshold than those for the associated single degrees. Visit [future-students.uq.edu.au](https://future-students.uq.edu.au) for up-to-date information..

<sup>y</sup> Not all applicants on this ATAR/IB gained entry; finer discrimination within the ATAR/IB was used.

<sup>z</sup> Minimum (adjusted) selection threshold 2021 is the minimum score that was considered for an offer of a place to all applicants.

<sup>z</sup> Lowest ATAR to receive an offer refers to all recent secondary students who were offered a place in 2021.

## Benefits of dual programs

### Strike a balance

Why compromise? Get study/life balance by combining programs that cover career aspirations and topics you're passionate about. Dual program students appreciate the diversity of topics offered in their two different programs.

### Twice as ready for the future

With career paths changing now more than ever, a dual program prepares you with a broad skillset to navigate the careers of the future.

# 23

**engineering, computing  
and design dual program  
combinations available**

# Bachelor of Engineering (Honours)/ Master of Engineering

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

QTAC CODE	UQ CODE	MINIMUM SELECTION THRESHOLD 2021 <sup>&lt;</sup> ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021 <sup>&gt;</sup>		DURATION	START SEMESTER	CAMPUS	HONOURS	ADMISSION REQUIREMENTS
			ADJUSTED	UNADJUSTED					
717111	2350	97 / 39	97.2	93.25	5 years full-time (or part-time equivalent)	1, 2	St Lucia	Part of standard program, awarded based on weighted grade point average	<p><i>For direct entry:</i> Qld Year 12 (or equivalent) General English subject (Units 3 &amp; 4, C); Mathematical Methods (Units 3 &amp; 4, C); and one of Chemistry or Physics (Units 3 &amp; 4, C). Students studying Specialist Mathematics (Units 3 &amp; 4, C) and both Physics and Chemistry will have increased flexibility in their studies.</p> <p><i>For internal application:</i> You must have completed at least 16 units of study (equivalent to one year full-time study) with an appropriate major towards a Bachelor of Engineering (Honours) or BE(Hons) dual degree in a relevant discipline, with a weighted grade point average of at least 5 on a 7-point scale.</p>

See 'Program table explained' on page 68

<sup><</sup> Minimum (adjusted) selection threshold 2021 is the minimum score that was considered for an offer of a place to all applicants.

<sup>></sup> Lowest ATAR to receive an offer refers to all recent secondary students who were offered a place for Semester 1, 2021. The lowest ATAR (Adjusted) refers to the ATAR plus any adjustment factors. The Lowest ATAR (Unadjusted) refers to the lowest ATAR excluding any adjustment factors.

## What you will 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) degree is for you.

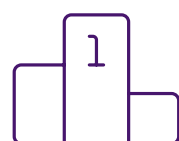
The Bachelor of Engineering (Honours)/ Master of Engineering combines our undergraduate engineering program with master's level coursework and a semester-long placement or research thesis with an industry or research partner.

These courses are designed to provide specialist knowledge of the various disciplines and place you closer to the

leading edge of technology. Employers need 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.



**Gain a clear advantage when applying for jobs that require advanced skills and capabilities**

## FIELDS OF STUDY

The Bachelor of Engineering (Honours)/Master of Engineering fields of study include:

- Chemical
- Chemical and Biomedical
- Chemical and Bioprocess
- Chemical and Environmental
- Chemical and Materials
- Chemical and Metallurgical
- Civil
- Civil and Environmental
- Electrical
- Electrical and Biomedical
- Electrical and Computer
- Mechanical
- Mechanical and Aerospace
- Mechanical and Materials
- Mechatronic
- Software



Isabella Betros,  
Bachelor of Engineering (Honours)  
(Chemical)/Master of Engineering  
student on placement at  
Queensland Urban Utilities.



## Your integrated master's over five years

### YEAR

1

+

### YEAR

2

+

### YEAR

3

+

### YEARS

4&5

#### 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 field of study

Choose a study area and undertake courses specific to your career aspirations. There are 16 areas to choose from (refer to the table, left).

#### Consolidate your study

Consolidate your learning in your chosen study area to match your individual career goals. This is also a great time to undertake an exchange semester!

[uq.edu.au/uqabroad](http://uq.edu.au/uqabroad)

#### Master's courses / industry placement

Undertake a semester-long industry or 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.

# European double degrees

Take your study overseas and get both a UQ and European master's degree.

Unique to UQ, this program is exclusively for students studying the Bachelor of Engineering (Honours)/Master of Engineering and allows you to study at some of the best engineering and technical schools in the world.

As part of the Bachelor of Engineering (Honours) / Master of Engineering program at UQ, you have an exciting opportunity to study overseas at one of our premier European partners and to graduate with two master's degrees – one from our partner university, as well as the integrated Bachelor/Master degree from UQ.

## Where can you study?

### Technical University of Munich (TUM)

Location: Munich, Germany

TUM Degree: Master of Science in Electrical Engineering and Information Technology

UQ Degree: Electrical Engineering

### Lund University

Location: Lund, Sweden

(30 mins from Copenhagen)

Lund Degree: Master of Science in Engineering

UQ Degree: Chemical Engineering, Electrical Engineering, Mechanical Engineering, Mechatronic Engineering

### CentraleSupélec (CS)

Location: Paris-Saclay, France

CS Degree: Master of Science/Engineering

UQ Degree: Electrical Engineering, Mechanical Engineering, Mechatronic Engineering

### Politecnico di Milano (POLIMI)

Location: Milan, Italy

POLIMI Degree: Laurea Magistrale (Master of Science) in Engineering

UQ Degree: Electrical Engineering



*"This has been an amazing experience so far and I really feel like I've become even more independent because of it."*

### Hera Williamson

Bachelor of Engineering (Honours) (Chemical)  
(Lund University, Sweden)

## What our students say about the European Double Degree Pathway

**"Good friends, plenty of fun, and great industry opportunities."**

Because of the contacts I made during my studies, I found a placement in my dream company, Tetra Pak, here in Lund! Every semester I have worked on projects with people from different areas, from catalyst development to polymer production, and cheese manufacturing. This has been invaluable for my employment opportunities in the future. Travelling around Sweden and Denmark is very easy when based in Lund, and I've also been able to holiday around Europe and the Middle East, both during semester and the summer.

This has been an amazing experience so far and I really feel like I've become even more independent because of it."

Hera Williamson, Chemical Engineering  
(Lund University, Sweden)

## Why complete a European Double Degree?

- Graduate with two master's degrees instead of one
- Broaden your career opportunities and develop a global network
- Live and study in a different country and gain an excellent working knowledge of another language and culture
- Access industry and work experience opportunities in Europe

**Gain a clear advantage when applying for jobs that require advanced skills and capabilities**



# Gain a **Bachelor and Master's in four years** with a UQ vertical dual degree

Pursue your passions, broaden your skillset and increase your employment opportunities with a vertical dual degree in computer science.

UQ's vertical dual degrees enable students to gain a Bachelor and Master's degree in four years - instead of five.

With a Commonwealth Supported Place\*\* throughout the program, students will study the Bachelor of Computer Science before commencing in a Master's program in Data Science or Cyber Security.

Make yourself more employable and ready to launch into an exciting career with skills that are in high demand from some of the world's biggest technology corporations.

## **Bachelor of Computer Science/Master of Data Science**

The Bachelor of Computer Science is designed to provide a deeper understanding of all aspects of computer technology. With a Master of Data Science, you will be expertly placed to solve big data challenges across business, social, government and health data.

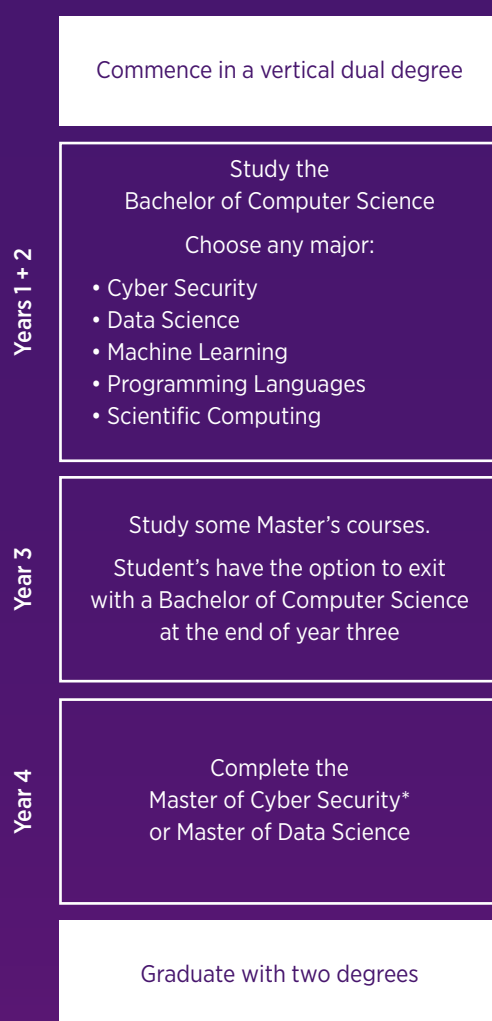
## **Bachelor of Computer Science/Master of Cyber Security**

The Bachelor of Computer Science will teach you how to create and analyse computer-based systems. With a Master of Cyber Security, you'll be able to look at the field from a different angle, ask bigger questions, and find new ways to tackle real and emerging cyber security threats.

For further information, please visit:

**[future-students.uq.edu.au](https://future-students.uq.edu.au)**

### **How a vertical dual degree works**



\*The vertical dual degree is only possible with the Cyber Defence or Cryptography fields in the Master of Cyber Security component.

\*\*Commonwealth Supported Places are currently available for domestic students in these programs.

# 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.

## Computer Labs



Across the precinct, UQ has dedicated computer labs with 1:1 computer to occupant ratio. These computers have the latest software and programs required for your degree. Students can access labs 24/7 when they're not in use for a class.

## Engineering Learning Centre



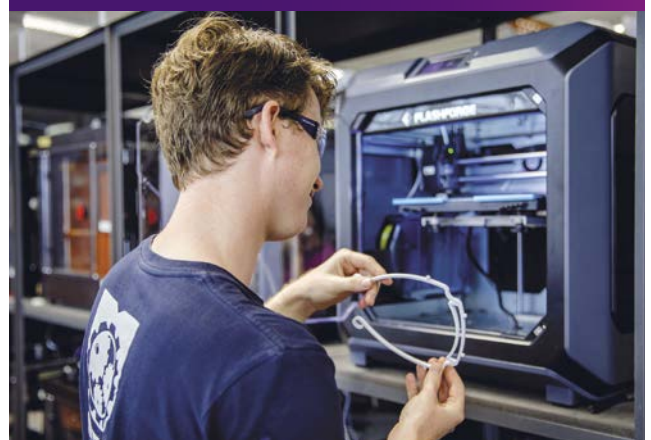
The First Year Engineering Learning Centre is a multi-purpose space created to enhance the experience of first-year engineering students. This is your place to call home while on campus and where you can get help and advice about your studies.

## Laboratories



Access our state-of-the-art facilities, learning spaces, design studios and laboratories designed to support and enhance your learning experience.

## UQ Innovate



UQ Innovate is a newly developed workshop facility where UQ students and staff can meet, collaborate and create in a friendly and supportive environment. You will have access to trade and academically qualified staff and the latest industry-grade equipment, from laser cutters and 3D printers to water jets.





# 84.5%

**of current engineering students were happy with facilities and resources**

Student Experience Survey 2019-2020

## Andrew N. Liveris Building



The heart of UQ's Engineering and Computing Precinct at St Lucia is about to change forever with the construction of a new education hub that will shape and nurture the next generation of designers, thinkers and engineers. Andrew N. Liveris Building will be the new home of the School of Chemical Engineering and will open in 2021.

## Table Tennis



Thanks to the annual Engineering Class Gift, donations from previous students support many student-facing projects including a ping-pong table, BBQ, charging stations and refurbishments to study spaces.

## Study Spaces



With options ranging from formal library spaces to indoor pop-up and alfresco locations, there are plenty of dedicated study spots for you to make the most of your time at UQ. These dedicated spaces have been reserved for the purposes of individual study.

## Virtual Immersive Learning Facility



Powered by three high-powered digital projectors displaying onto an eight-metre semicircular wall, this simulation facility enables you to experience what it feels like to be on-site at a mine, a building site or a chemical-processing plant.

# UQ's Women in Engineering Program

Engineers are problem solvers, inventors, designers, builders and great thinkers. They create innovative solutions for the challenges facing society to improve the state of the world and make people's lives safer and easier. To do this successfully, we need a new generation of diverse engineering graduates who can provide different elements to the solution. Therefore, the best engineering teams must be as diverse as the society they work in.



Meet Amy, a WE student leader and a fourth year Bachelor of Engineering (Honours) student studying civil and environmental engineering.

Engineering was not Amy's first choice when she left high school, although she loved maths and science growing up. It was a UQ Open Day event after she finished a degree in Business Management that opened up her eyes to Engineering and the diverse career options it offers. She was inspired by the Engineering presentations and demonstrations on the day, and the creativity and innovation that is involved in shaping people's lives, making the world a better place. Amy saw a need for diversity and gender balance in the industry and she wanted to be a part of that future.

Meet all of our student leaders at [eait.uq.edu/we-student-leaders](http://eait.uq.edu/we-student-leaders).

University-led and industry funded, the UQ Women in Engineering (WE) Program was created with an aim to improve gender balance at both tertiary and industry levels. The program is led by a team of staff and current UQ engineering students who inspire future students to consider Engineering as a rewarding career, and foster growth and development of students commencing their engineering degrees at UQ.

## The UQ Women in Engineering Program:

- Educates high school students about engineering. You cannot be what you cannot see – therefore we share our message of what engineering is and the diverse career opportunities the degree can lead to.
- Supports female students studying engineering at UQ by providing mentoring and networking opportunities, and just someone to have a coffee with if needed.
- Connects our female students and graduates with industry leaders for a smooth transition into the workforce.

UQ is the university of choice for female students studying engineering in QLD, with 25 per cent female enrolment in commencing engineering programs compared to a national average of 18 per cent. We know a dedicated program to educate, support and connect our students is a driver of this success, and we have a track record of increasing female student enrolments since the program commenced in 2013.

The Women in Engineering Program at UQ provides female engineering students with a sense of community and a platform to share new ideas, as well as providing opportunities to build important skills for academic and career success. We encourage all engineering students to join us at our events as we cater for an inclusive and diverse audience.

- First point of contact: If you are offered a place to commence Engineering at UQ, a WE Student Leader will call you to discuss any questions you might have – from studying engineering to student life on campus.
- Be welcomed from day one: WE host a Welcome Lunch event during orientation week for first year female engineering students – meet other students in your cohort and get to know our WE Student Leader team.
- We are with you for the whole journey: WE have events all year round and stay with you throughout your time at UQ to graduation and beyond.
- Inspire future generations: You can apply to be a WE Student Leader once you finish first year and be an integral part of our high school outreach activities and events.
- Industry connections: WE know that diverse teams are proven to perform better. Our program is strongly supported by industry and we work with them to achieve our goal of increasing female student enrolments into engineering courses. You will have direct access to key employers, allowing you to expand your network.





Freya van der Wal (left) Bachelor of Engineering (Honours) (Civil and Geotechnical); Karmine Karuna, Bachelor of Engineering (Honours) (Chemical and Environmental); and Karen Zhou, Bachelor of Engineering (Honours) (Chemical)

Did you know that at UQ, there are multiple scholarship opportunities, some specifically for women in engineering?  
[scholarships.uq.edu.au](https://scholarships.uq.edu.au)



**UQ is the university of choice for women studying engineering in Queensland**

**Proudly supported by our program partners:**



Part of Energy Queensland



**Would you like to know more?**

[we@eait.uq.edu.au](mailto:we@eait.uq.edu.au)

+ 61 7 3443 1654

[eait.uq.edu.au/we](https://eait.uq.edu.au/we)

Facebook: [UQWomeninEngineering](https://www.facebook.com/UQWomeninEngineering)

Instagram: [womenin\\_engineering](https://www.instagram.com/womenin_engineering)

Podcast:

But Seriously, What is Engineering?

[eait.uq.edu.au/what-is-engineering-podcast](https://eait.uq.edu.au/what-is-engineering-podcast)







Professor Ryan Ko and students in the new Industry 4.0 TestLab.

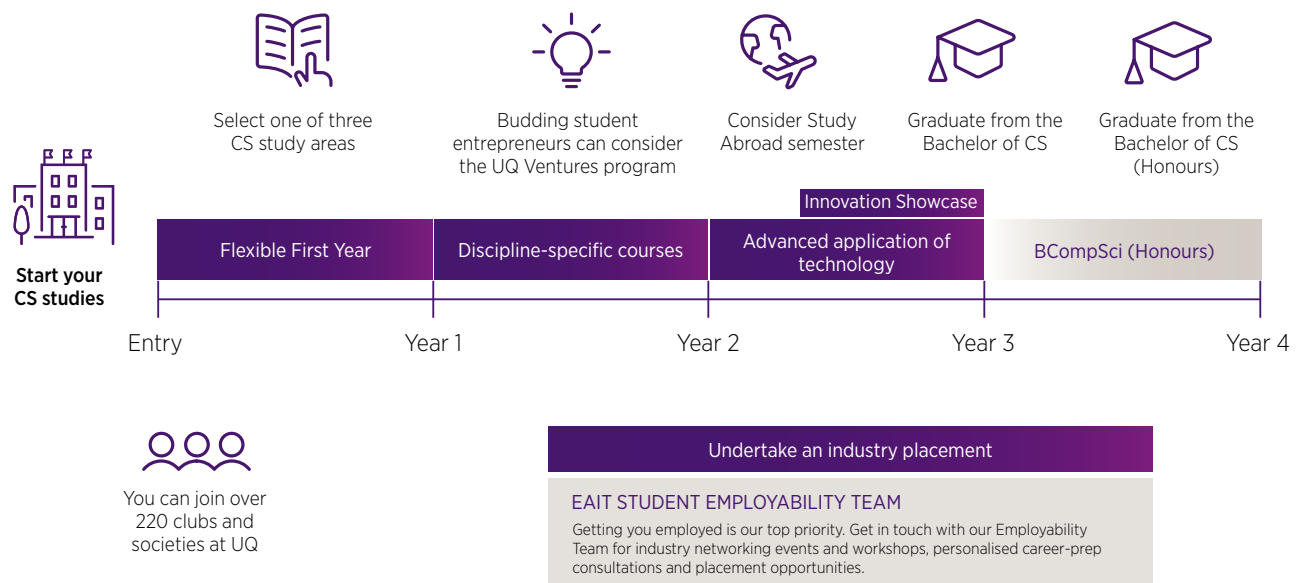


# Your Computer Science degree

The pace of change in digital technologies is extraordinary. Artificial intelligence, unprecedented computer power, the Internet of Things, big data, and automation will continue to increase and transform the way we work, the way we learn, and the jobs we do in the future.

At UQ, you'll gain the solid tech foundations and skills that industry demands to play a critical role in creating, developing, implementing and evaluating new systems and technology for use in our society.

## Your journey as a computer science student



Whether you're interested in **data science, AI, programming** or **cyber security** – UQ has a degree to meet your needs.

Bachelor of

# Computer Science

Interested in shaping the digital future? Gain the fundamental knowledge and practical skills to design, develop and analyse computer-based systems.

QTAC CODE	UQ CODE	MINIMUM SELECTION THRESHOLD 2021 <sup>*</sup> ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021 <sup>†</sup>		DURATION	START SEMESTER	CAMPUS	HONOURS	DUAL PROGRAM AVAILABLE	ADMISSION REQUIREMENTS
			ADJUSTED	UNADJUSTED						
733401	2451	88 / 32	88.5	86.25	3 years full-time (or part-time equivalent)	1, 2	St Lucia	Additional year of study	Arts, Business Management, Commerce, Engineering (Honours), Laws (Honours), Mathematics, Master of Cyber Security, Master of Data Science, Science	Qld Year 12 (or equivalent) General English subject (Units 3 & 4, C); Mathematical Methods (Units 3 & 4, C). Specialist Mathematics (Units 3 & 4, C) is recommended

See 'Program table explained' on page 68

<sup>\*</sup> Minimum (adjusted) selection threshold 2021 is the minimum score that was considered for an offer of a place to all applicants.

<sup>†</sup> Lowest ATAR to receive an offer refers to all recent secondary students who were offered a place for Semester 1, 2021. The lowest ATAR (Adjusted) refers to the ATAR plus any adjustment factors. The Lowest ATAR (Unadjusted) refers to the lowest ATAR excluding any adjustment factors.

## 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

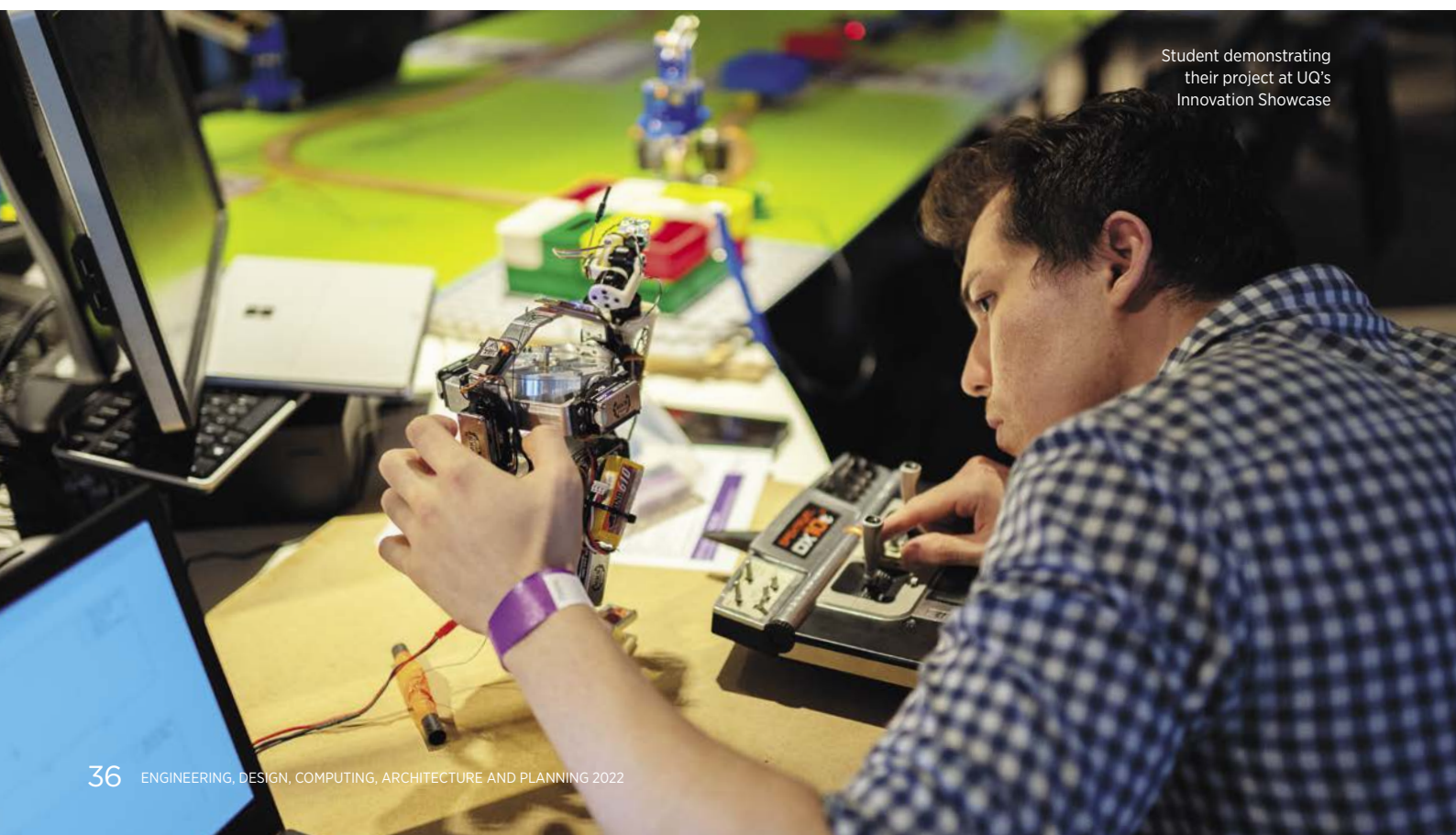
control your phones and cars? How can surgical devices reduce tremor in surgeons?

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.



Student demonstrating their project at UQ's Innovation Showcase



## Areas you can specialise in:

### Cyber Security

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.



**300% growth in the Australian cyber security sector predicted by 2026.\***

### Data Science

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.



**17,000 – number of additional cyber security workers needed in Australia by 2026.\***

*\*Source: AustCyber*

### Machine Learning

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.

### Programming Languages

Programming languages are the building blocks of software in computer science. Covering the different paradigms of programming, this area of study focuses on the design of computer languages that can

be easily used to create programs. You will study the craft and science of programming, which will enable the construction of effective programming languages as well as correct and reliable software.

### Scientific Computing

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 to 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, as well as big pharmaceutical and petrochemical companies across the public and private sectors.

### Other pathways into a career in computing

#### Bachelor of Science (Computer Science)

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.



Search 'Computer Science' at [future-students.uq.edu.au](http://future-students.uq.edu.au)

#### For more information

Visit [future-students.uq.edu.au](http://future-students.uq.edu.au) or scan the QR code



Physical Computing  
students at UQ's  
Interaction Design Exhibit.



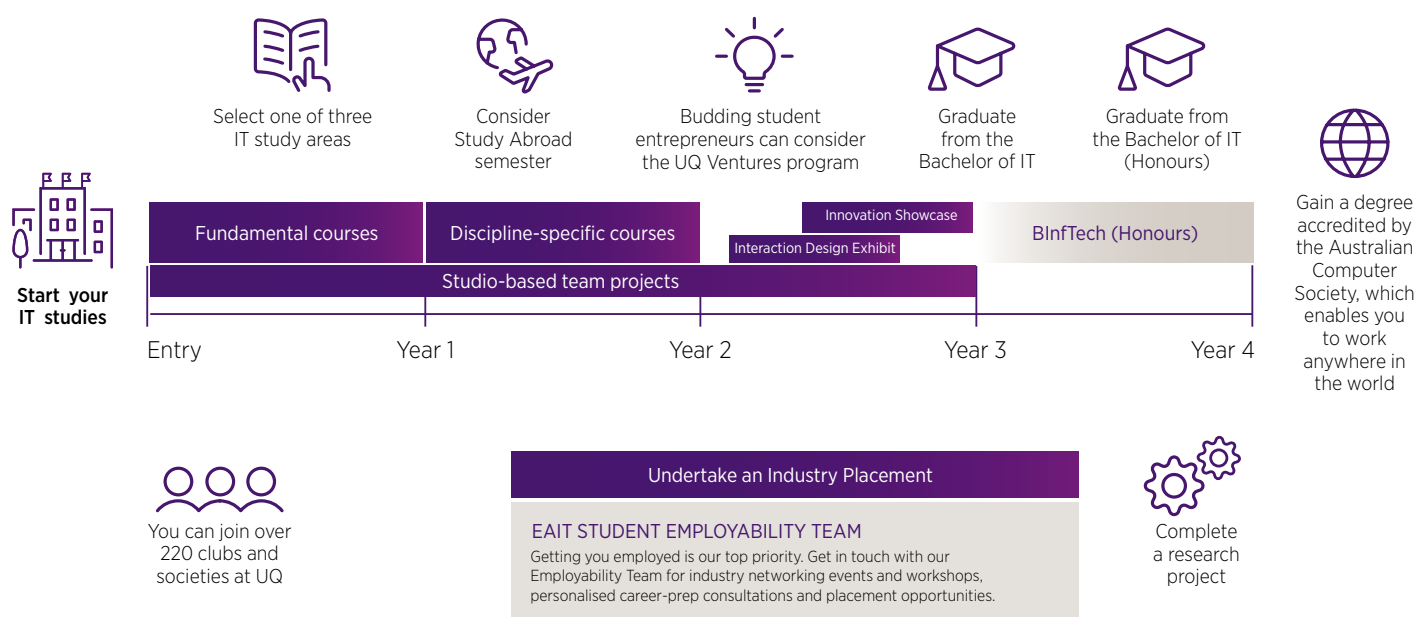


# Your Information Technology degree

With an IT degree, your career possibilities are endless. Tech 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. The knowledge and skills you learn can also take you abroad, working internationally.

## Your journey as an information technology student



# 85%

**of graduates were satisfied with how their skills improved**

Computer and Information Systems  
Course Experience Questionnaire 2019-2020



**Did you know?**

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

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 specialised skills and knowledge to meet the needs of a rapidly changing world.

QTAC CODE	UQ CODE	MINIMUM SELECTION THRESHOLD 2021 <sup>*</sup> ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021 <sup>*</sup>		DURATION	START SEMESTER	CAMPUS	HONOURS	DUAL PROGRAM AVAILABLE	ADMISSION REQUIREMENTS
			ADJUSTED	UNADJUSTED						
733001	2453	88 / 32	88.5	86.5	3 years full-time (or part-time equivalent)	1, 2	St Lucia	Additional year of study	Arts, Business Management, Commerce, Engineering (Honours), Science	Qld Year 12 (or equivalent) General English subject (Units 3 & 4, C); Mathematical Methods (Units 3 & 4, C)

See 'Program table explained' on page 68

<sup>\*</sup> Minimum (adjusted) selection threshold 2021 is the minimum score that was considered for an offer of a place to all applicants.

<sup>></sup> Lowest ATAR to receive an offer refers to all recent secondary students who were offered a place for Semester 1, 2021. The lowest ATAR (Adjusted) refers to the ATAR plus any adjustment factors. The Lowest ATAR (Unadjusted) refers to the lowest ATAR excluding any adjustment factors.

## 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.



**6 of the 10 most valuable brands in the world are tech companies.**

Forbes, 2020

Interaction Design Exhibit at UQ Bloom Festival 2020.





## Areas you can specialise in:

### User Experience Design

New technologies only succeed if they work for people. User Experience (UX) designers are the people who ensure the design of software, websites, or technologies meets their intended use – from commercial software to personal fitness apps to games, and everything in between. The User Experience Design study area is for anyone who wants to work in the multi-skilled field

of human-centred design. UX designers work across all sectors of ICT, where their combination of people skills, creativity and technical abilities are in demand. Courses in this major focus on design skills and creativity, programming and prototyping in different media. Design skills are consolidated in Design Computing studio courses.

### Software Design

There is a significant sector within the global IT industry that develops applications such as games, apps for mobile devices, or tools and systems used by individuals, government and other companies. This study area is aimed at students who wish to follow a career in the creation and management of

software applications. Courses focus on programming, software development, project management, requirements analysis, specification and the software process, as well as software applications involving internet design, human-computer interaction, algorithms, data structures and concurrency.

### Software Information Systems

Software information systems are integral to almost every business and government organisation. In this study area, 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.

During your studies, you'll not only learn how to create large, effective and efficient information systems, but also how to incorporate business management processes into the system's development in order to maximise the system's performance.

### Minor: Computer Systems

You can also minor in Computer Systems. This minor gives students a strong background in understanding how software is controlled on one or many computers, including security, networking and operating systems. It is a strongly technical minor, requiring strong conceptual and programming

skills. Courses focus on programming, computer architecture, computer networks, networks programming, and operating systems. Graduates can look forward to careers in security, design of new cutting-edge computer systems and integration of large-scale systems based on networked machines.



*“The best knowledge I gained from studying a Bachelor of Information Technology at UQ has been how to effectively learn new things. It’s easy to get overwhelmed when presented with something you know very little about, but by being guided through the process, it’s now much easier to pick up new and exciting concepts. I still use the base knowledge I learned through the first and second year programming courses every day.*

*My favourite part of my job is the satisfaction of finding a pain point that affects someone’s day-to-day life and creating a solution that make their life easier.”*

#### **Nathan Dench**

Bachelor of Information Technology  
(Software Design)

Co-founder and Software Engineer,  
ProcurePro, Brisbane

#### **For more information**

Visit [future-students.uq.edu.au](https://future-students.uq.edu.au)  
or scan the QR code



First year engineering students during the Bachelor of Engineering (Honours) Project Day.







## 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 get you through the recruitment process and prepare for your career.

# Engineering, Architecture and Information Technology Student Employability Team

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 you 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 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](mailto:employability@eait.uq.edu.au)

[eait.uq.edu.au/employability](http://eait.uq.edu.au/employability)



### Facebook: EAIT Student Employability

(for daily graduate jobs, professional practice and work experience opportunities, tips, and upcoming workshops and events)

Isabella Fyfe,  
Bachelor of Architectural  
Design graduate

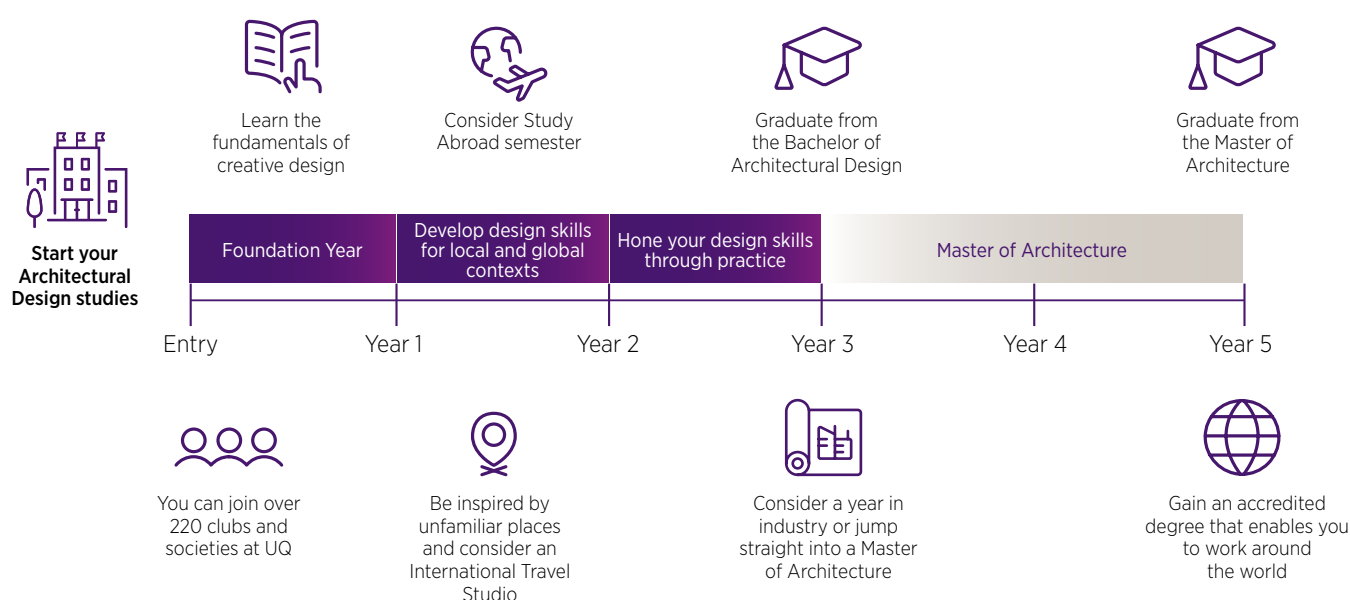




# Your life in Architecture

Our creative and globally focused courses help you develop the skills you'll need to design smart and sustainable buildings and places. You'll have access to the latest technologies, innovative processes, and a wealth of architectural and built environment resources and experience to create a strong foundation for your design career.

## Your journey as an architectural design student



Accredited  
by the Australian Institute  
of Architects

Top 100  
in the world for Architecture/  
Built Environment courses\*

\*QS World University Rankings by Subject, 2021



Latest design technologies



Collaborative culture



Global focus – learn locally and globally

# Bachelor of Architectural Design

Want to make the world a better place through sustainable design and innovative solutions? Then a career in architecture might be for you.

QTAC CODE	UQ CODE	MINIMUM SELECTION THRESHOLD 2021 <sup>†</sup> ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021 <sup>†</sup>		DURATION	START SEMESTER	CAMPUS	ADMISSION REQUIREMENTS
			ADJUSTED	UNADJUSTED				
711202	2293	88 / 32	88.1	85.9	3 years full-time	1	St Lucia	Qld Year 12 (or equivalent) General English subject (Units 3 & 4, C)

See 'Program table explained' on page 68

<sup>†</sup> Minimum (adjusted) selection threshold 2021 is the minimum score that was considered for an offer of a place to all applicants.

<sup>†</sup> Lowest ATAR to receive an offer refers to all recent secondary students who were offered a place for Semester 1, 2021. The lowest ATAR (Adjusted) refers to the ATAR plus any adjustment factors. The Lowest ATAR (Unadjusted) refers to the lowest ATAR excluding any adjustment factors.

## What you will study

Architects solve diverse and complex problems. The Bachelor of Architectural Design provides you with the fundamental skills and technical knowledge you'll need to develop innovative and sustainable design solutions for our future buildings, communities and environments.

At UQ, you will develop your creative problem-solving skills with constructive and progressive project-based courses in design and technology. The School of Architecture's facilities give you access to the latest technologies and resources to develop your ideas from design conception through to presentation, documentation and models.

You will gain a rich understanding of cultures, people and places throughout history and in today's societies. You'll experience how the built environment can impact communities through inspiring international study tours, Indigenous and multicultural projects, and our diverse and globally experienced teaching staff.

## Integrated sustainability and technology

The natural and urban environment will also directly impact on your designs. Your education in sustainable systems, materials and strategies is integrated into both your design and technology courses, where you will also learn about structural systems and construction methods, as well as visiting architectural building sites during construction.

## Practical experience

The design courses form the main area of study in the Bachelor of Architectural Design. In these courses, projects are developed in a studio setting through the application and integration of the knowledge and skills acquired from supporting courses. In addition to design, key areas of the program include environmental design, architectural technology, history and theory, communication, and digital design.

## COURSE HIGHLIGHTS

- International study tours
- Learn from leading architects
- Small design classes
- Project-based learning
- Industry mentorship opportunities

## Aims and specific objectives

On completion of the Bachelor of Architectural Design, you will be able to:

- start your career as a graduate designer in an architectural practice, drafts person, building designer or 3D visualisation artist
- use conceptual ideas to design the built environment at all scales – from broad strategic thinking to the detailed resolution of buildings
- present and discuss architectural design outcomes with peers, the profession and the community
- articulate a coherent set of architectural design values.



Left: Bachelor of Architectural Design exchange student Alina Wagner's Architectural Design ARCH2200: Dogs Qld, Aerial Perspective project.

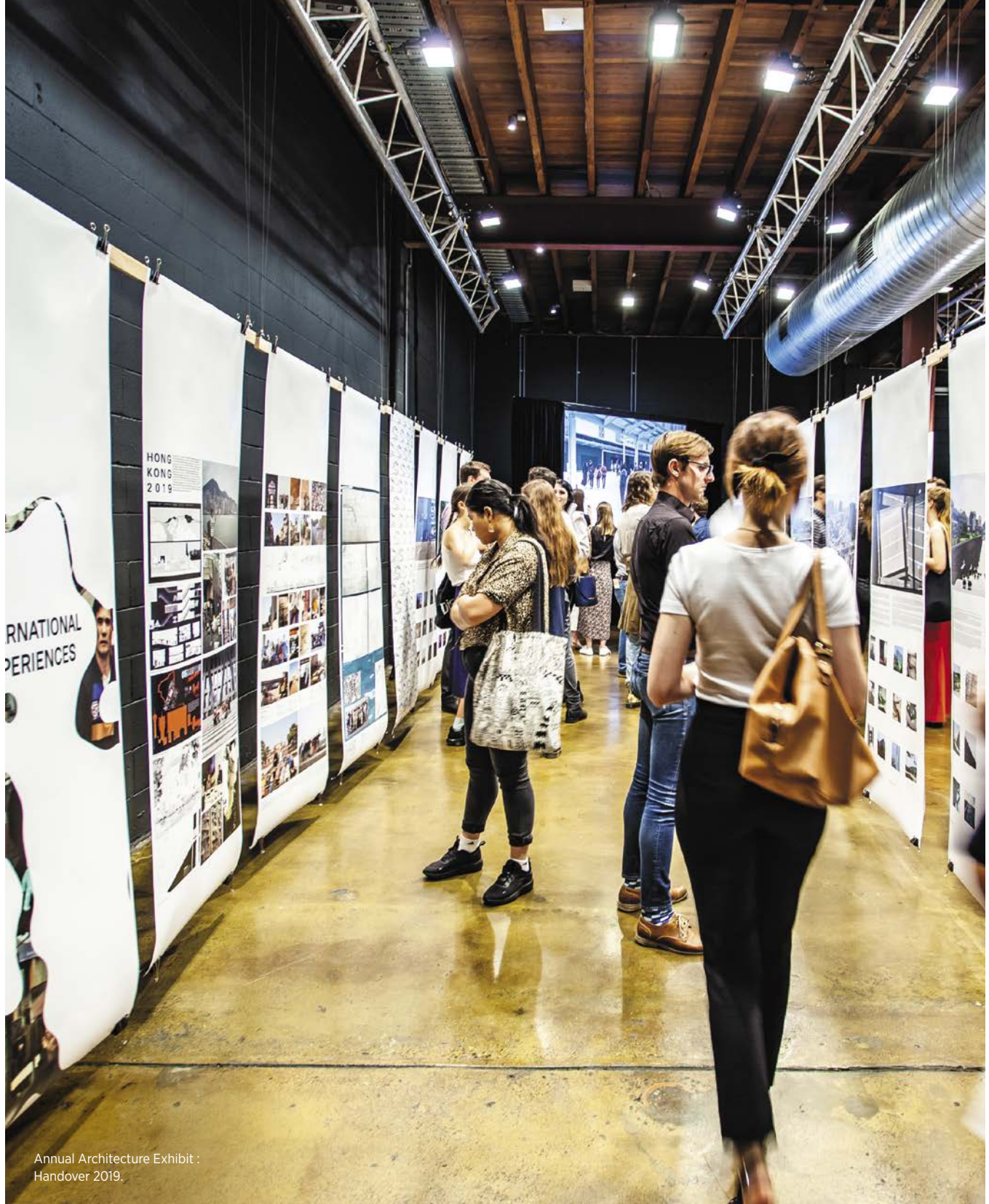
Right: Handover, the School of Architecture's graduate exhibition 2019.

## For more information

Visit [future-students.uq.edu.au](https://future-students.uq.edu.au) or scan the QR code







Annual Architecture Exhibit :  
Handover 2019.

## Becoming an architect

Following the completion of your Bachelor of Architectural Design, your next step to becoming a registered architect is with UQ's Master of Architecture.

### Master of Architecture

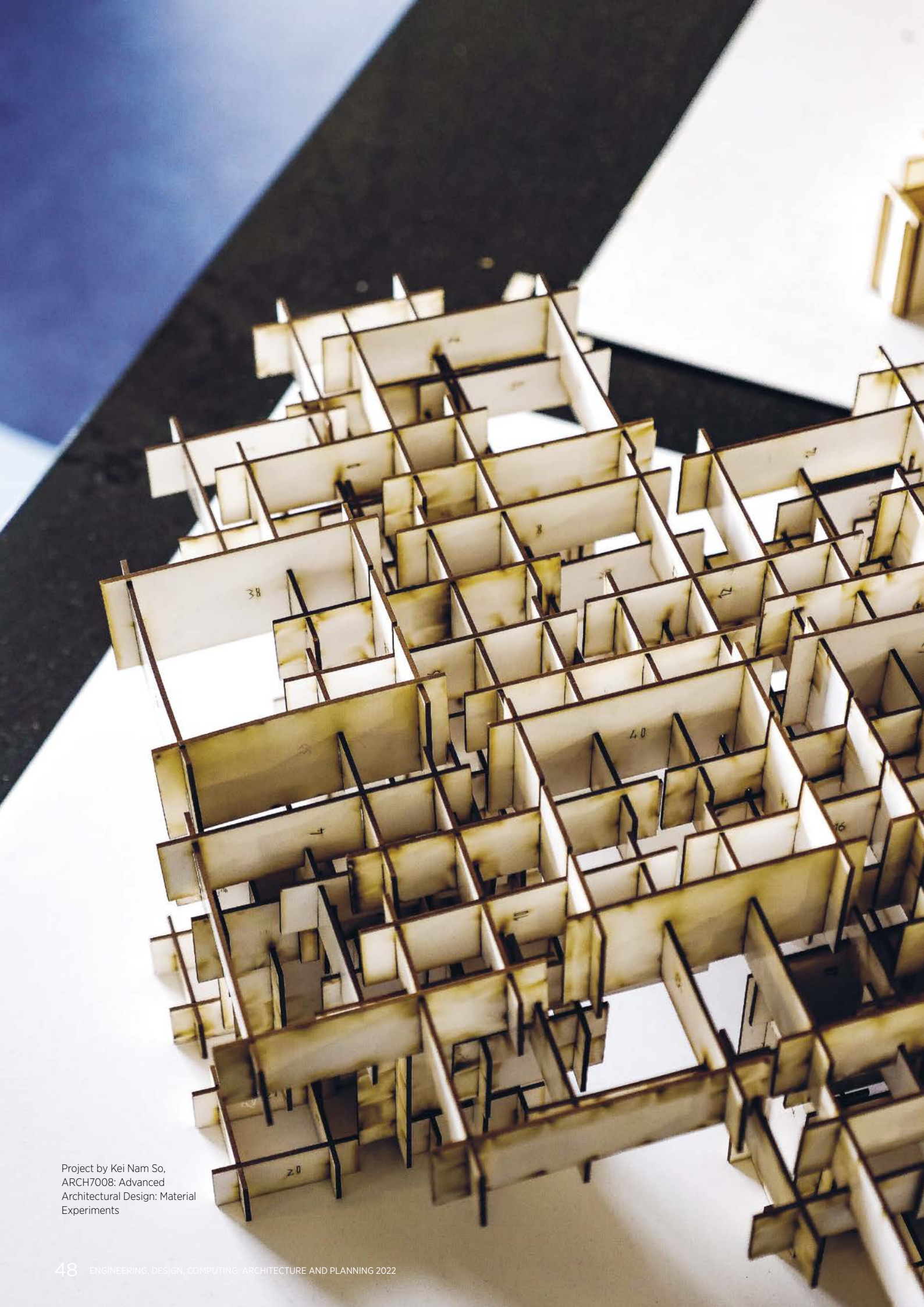
The Master of Architecture is the second stage of UQ's Architecture program, providing you with the necessary skills, experience and qualifications for your registration as a professional architect. You will undertake a range of courses designed to broaden your creative design skills, and develop advanced technical and professional skills relevant to the practice of architecture.

Students often choose to spend a year or more working in an architectural practice to gain professional experience before returning to complete their Master of Architecture.

### Professional affiliations

On graduating from the Master of Architecture degree, you will be eligible for membership with the Australian Institute of Architects.





Project by Kei Nam So,  
ARCH7008: Advanced  
Architectural Design: Material  
Experiments





Above: ARCH2200: Architectural Design project by second-year Bachelor of Architectural Design student, Christopher Davies.  
Below: ARCH7004: Dwelling and Density project by Master of Architecture student, Lisa Herbohn.





# How will you learn?

At UQ, it's all about practical and creative learning through design studios. UQ Architecture emphasises the importance of practical skills so that you can communicate and refine your ideas through drawings, models, prototypes and structures. Our teaching model is founded on hands-on learning at multiple scales, leading to more complex materials and forms. You'll learn all this and more in our design studios.

## What is a design studio?

Design studios are essentially classes which help you research, explore and innovate solutions for a changing world. Run by academics or members of the global architecture industry, design studios reflect the processes and culture of architectural firms. Studios are based on current projects and problems which you will thoroughly interrogate. At the end of each semester you will present your design concept in front of your peers and experts.

In our studios, you will learn to create exciting new spaces by testing ideas three-dimensionally, through making and building.

Working hands-on with paper, card, clay and foam will give you the confidence to experiment with architectural form. You'll also have opportunities to make models using laser cutters and 3D printers, to construct furniture and prototypes, and even to work on small buildings using our well-resourced workshop facilities.

Your design studio time will make up the majority of your contact hours on campus (up to 50 per cent).

## International travel studios

Travel is an essential part of an architectural education. Unfamiliar places inspire creative ideas. Travel gives you the chance to experience architecture from different places and times and provides perspective and understanding of diverse cultures.

## An international career

As a UQ Architecture student, you'll have the opportunity for international travel as part of your degree. In the last four years, our students have enjoyed study tours to Hong Kong, the US, Japan, India, Myanmar,

Malaysia and Sri Lanka. UQ Architecture has won generous funding from the federal government for its international travel program that has supported more than 150 students.

We believe that travelling prepares our graduates for international careers as architects. Students who study abroad are likely to be more resourceful, willing to take chances and immerse themselves in unfamiliar situations, and have cross-cultural understanding and curiosity.

## Mentoring through the Australian Institute of Architects

Architects from the Queensland Chapter of the Australian Institute of Architects mentor students, offering career guidance along with industry experiences such as site visits. We encourage students to join the institute and build connections with the architectural community.





# What you can do with a Bachelor of Architectural Design

*“UQ provides many opportunities to travel and tailor your learning to forge your own career path. I learnt that it’s okay to follow the road less travelled, to have the courage to do things in your own way and create your own path, whether it be in life or a particular project.*

*For future students wanting to enter the field, I would recommend that they take risks and have the courage to explore new and different avenues, whether it be doing things differently to others in their projects, or following a unique career path, or even taking the opportunity to travel overseas. Daring to do things differently can be an unexpectedly rewarding and eye-opening experience.”*

## **Julia Zin**

Bachelor of Architectural Design graduate



## **Hot jobs**

- Architectural graduate
- Project manager
- Design manager

## **Jobs where your Bachelor of Architectural Design would be useful:**

- Design-oriented publishing and media
- Building surveyor
- Construction manager
- Academic
- Conservation professional
- Landscape architect
- Production designer in theatre, film and television
- VFX artist



*“If you often find yourself noticing your surroundings and how a space makes you feel, then architecture might be for you. If you’re passionate about design and shaping our world for the better, then go for it.*

*My best memory of studying at UQ was a trip to Myanmar where we worked on the conservation and adaptive reuse of significant heritage buildings that were at threat. It was a fantastic opportunity to work with the global architecture community such as local architects, heritage societies and students.”*

## **Matthew Walton**

Architectural Graduate,  
Rothelowman Architects,  
Brisbane



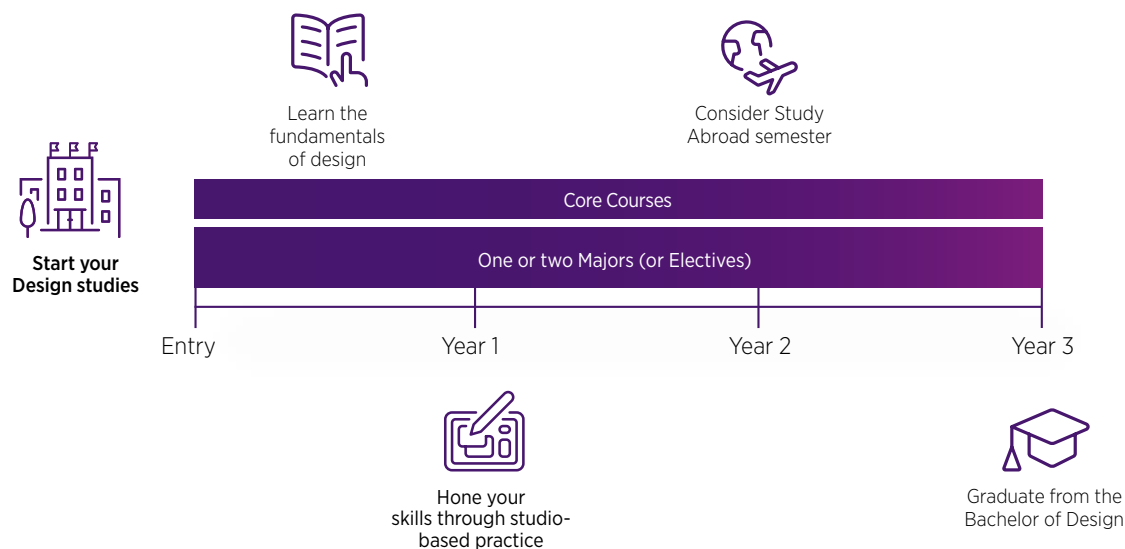




# Your life in Design

Good design is essential. It starts with identifying a problem and ends with an outcome driven by the desire to meet the needs of the user. When we open our eyes to what users truly want, we create products and services that provide exceptional value. Discover how you can design creative solutions for people and a better world.

## Your journey as a design student



Discover how you can  
**design creative solutions**  
for people and a better world.

# Bachelor of Design

NEW  
in 2021

This multi-disciplinary program incorporates elements of business, IT, architecture and the humanities. You will develop a flexible range of skills to succeed in almost any industry – from digital communication or industrial design to spatial and human-centred design.

QTAC CODE	UQ CODE	MINIMUM SELECTION THRESHOLD 2021 <sup>c</sup> ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021 <sup>d</sup>		DURATION	START SEMESTER	CAMPUS	DUAL PROGRAM AVAILABLE	ADMISSION REQUIREMENTS
			ADJUSTED	UNADJUSTED					
711203	2454	86 / 31	86.25	81.25	3 years full-time	1	St Lucia	Business Management, Engineering (Honours)	Queensland Year 12 (or equivalent) General English subject (Units 3 & 4, C)

<sup>c</sup> See 'Program table explained' on page 68

<sup>d</sup> Minimum (adjusted) selection threshold 2021 is the minimum score that was considered for an offer of a place to all applicants.

<sup>e</sup> Lowest ATAR to receive an offer refers to all recent secondary students who were offered a place for Semester 1, 2021. The lowest ATAR (Adjusted) refers to the ATAR plus any adjustment factors. The Lowest ATAR (Unadjusted) refers to the lowest ATAR excluding any adjustment factors.

## What you will study

UQ's Bachelor of Design offers a new take on design, one where you'll challenge conventional thinking and bring a different mindset to business and societal problems. You'll graduate with the creativity and knowledge necessary to generate and design ideas for a better, more sustainable world.

This is the ideal program for those who are looking to cultivate specialist capabilities in problem identification, critical thinking, and designing for purpose. Through practical studio-based projects you will work in teams to collaborate, challenge assumptions, prototype innovative and sustainable solutions, and systematically solve problems in creative and novel ways.

You can specialise in one or two majors that align with your preferred career pathway. Choose from Anthropology, Buildings and Environments, Environment and Society, Information Environments, Innovation and Entrepreneurship, and Media and Digital Cultures.





## Areas you can specialise in:

### Anthropology

Designing anything is a social process. Anthropology is the study of humans, our societies and cultures in all their complexities. Good design requires us to think about how people will engage with

and relate to the envisioned product, service or practice. In this major, you'll develop skills that transfer across multiple industries with a focus on understanding the people you're designing for and their future needs.

### Buildings and Environments

The Buildings and Environments major places particular emphasis on the role designers play in shaping how the world works. You will explore both building and planning, including

sustainability and conservation, transport and infrastructure, architecture and built environment, and the economic and social aspects of development.

### Environment and Society

Explore the interconnections between people and the environment. Learn how human-led processes and design outcomes shape our ability to respond to pressing environmental problems, including climate change, bushfires, food insecurity, waste and biodiversity loss. Drawing from

many disciplines, including sociology, anthropology, planning, philosophy and economics, this major covers global issues including social and environmental injustice, environmental racism and violence, the politics of conflict, and activism and social change.

### Information Environments

Learn how to use code and data to design human-centred technology that is fit for purpose. You'll explore the design and construction of the technologies and systems that society depends on for crucial

functions such as commerce, entertainment, and communications, and develop a deeper understanding of the interconnected systems and devices that make worldwide communication possible.

### Innovation and Entrepreneurship

Learn how to take a new idea to market by building a new business from the ground up. You'll be introduced to basic principles of innovation and entrepreneurship, including the entrepreneurial mindset and process. Then you'll apply this knowledge in practical courses on digital innovation, social entrepreneurship and growth strategies, as well

as technology and innovation management. Through leadership development, you'll become a resourceful, creative and resilient innovation leader who delivers sustainable commercial and social value. Further extending your skill set, you'll engage directly in a short placement or consulting project in a startup or commercial partner project.

### Media and Digital Cultures

Examine the cultural aspects of digital technologies and how they influence the design, use and impact of contemporary media in our everyday lives. You'll engage with course components that examine culture as art, popular culture, social media,

and the cultural diversity of digital media in Australia and across the world. This major is particularly suitable for students pursuing professional ambitions in the digital media industries and user-centred digital design.

## CAREERS

As a designer, you'll possess the expertise and creativity to respond to the complex needs of a contemporary world. Depending on which major you choose, you could pursue a career as a:

- Business entrepreneur
- Environmental graphic designer
- Wayfinding designer
- Product designer
- Design manager
- Change manager
- Magazine editor
- Urban designer



*"The question we need to ask is, where do you want to start your career? The conversation is no longer about a long-term view and a fully developed plan for when you're 50. It's not about where you will eventually be – it's about the breadth and diversity of the starting point."*

### Kirsti Simpson

Principal, Global Workplace Leader, Hassell

### For more information

Visit [future-students.uq.edu.au](https://future-students.uq.edu.au) or scan the QR code





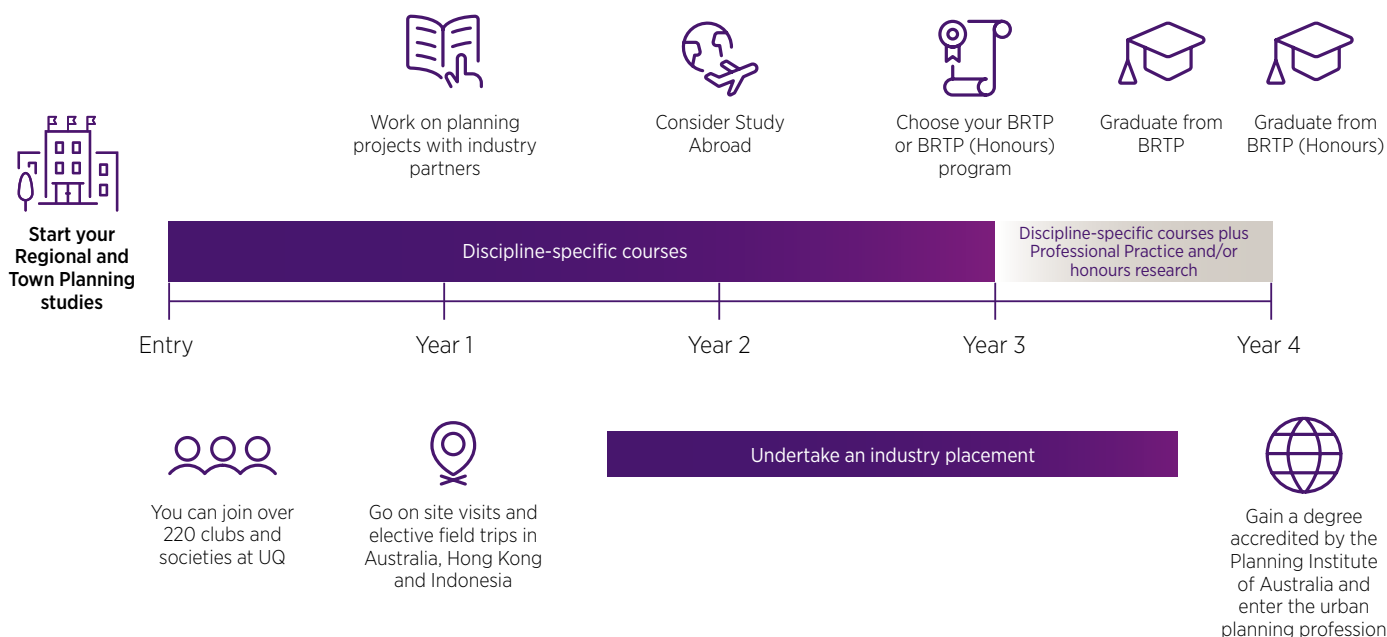
Regional and Town  
Planning students in  
UQ's Planning Studio



# Your place in Urban Planning

Develop the knowledge and skills needed to help communities, companies and governments integrate the urban, environmental, economic and social aspects of development from site design to regional scale analysis.

## Your journey as a planning student



# #17

**in the world for  
Environmental Studies  
and #45 for Geography**

QS World University by Rankings, 2021



**You will undertake a  
planning project each year,  
where you will work with  
industry, government and  
community partners on  
real-life developments in  
South East Queensland.**



**You have the  
opportunity to enrol in  
courses that will take  
you on field studies  
to Indonesia, Vietnam  
and Hong Kong.**

Bachelor of

# Regional and Town Planning

From site design to regional-scale analysis, you will learn how planning helps communities, companies and governments integrate the environmental, economic and social aspects of development.

QTAC CODE	UQ CODE	MINIMUM SELECTION THRESHOLD 2021 <sup>†</sup> ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021 <sup>‡</sup>		DURATION	START SEMESTER	CAMPUS	HONOURS	ADMISSION REQUIREMENTS
			ADJUSTED	UNADJUSTED					
702002	2063	80 / 29	80.65	80.65	4 years full-time (or part-time equivalent)	1, 2	St Lucia	At the end of year 3, eligible students will have the option of transferring to an honours year with a research project, or to complete fourth year by coursework	Qld Year 12 (or equivalent) General English subject (Units 3 & 4, C)

See 'Program table explained' on page 68

<sup>†</sup> Minimum (adjusted) selection threshold 2021 is the minimum score that was considered for an offer of a place to all applicants.

<sup>‡</sup> Lowest ATAR to receive an offer refers to all recent secondary students who were offered a place for Semester 1, 2021. The lowest ATAR (Adjusted) refers to the ATAR plus any adjustment factors. The Lowest ATAR (Unadjusted) refers to the lowest ATAR excluding any adjustment factors.

## What you will study

Learn land-use planning, urban design, transport and infrastructure planning, community planning, heritage and conservation, resource management, environmental monitoring, planning law and practice, commercial and industrial development, and policymaking and implementation. You will gain skills in long-range planning as well as structural and statutory components, including the current development of the built and natural environments and the legislative framework controlling land use. Your lecturers are experts in planning theory and practice, and collaborate with guest lecturers from industry to give you access to case studies from the professional sector. You will gain knowledge and practical skills, and undertake industry-focused planning projects in each year of your studies. In your fourth year of study, you can choose to focus on industry or undertake a research project (honours) or, if qualified, you can undertake both. You will receive advice during the third year of your program as to which of these options is most appropriate based on your areas of interest and your academic performance during the first three years of the program.

## Placements and practical experience

Throughout the program you will undertake real-life planning projects. These projects expose you to plan-making, urban design and community engagement activities. Past students have worked on the Indooroopilly Activity Centre, Yeerongpilly transit-oriented development site, and the inner-city redevelopment for Brisbane City Council. Choose to internationalise your studies by enrolling in field studies courses to Indonesia, Vietnam and Hong Kong, which focus on the development of cities and urban areas, and the key issues facing different regions around the world. Or, you may choose to study a semester abroad in planning programs at UQ's partner universities through the UQ Abroad program.

## SAMPLE COURSES

- Advanced Planning Practice
- Community Planning and Participation
- Cultural Heritage Management
- Human Settlements
- Introduction to Planning
- Professional Planning Practicum
- Real Estate Development Planning
- Resource Management and Environmental Planning
- Teamwork and Negotiation for Planners
- Transport Planning
- Urban Design

## For more information

[future-students.uq.edu.au](https://future-students.uq.edu.au)

[science.uq.edu.au/planner](https://science.uq.edu.au/planner)





*“The university opens doors to opportunities you may never have expected. One of the best experiences during my time at UQ was taking part in a summer semester course in Vietnam. It was the most exciting and enriching learning experience of my life to be able to study at a Vietnamese university and experience the culture while working toward my degree. The real life experiences combined with my fieldwork go far beyond what is achieved only in a lecture theatre.”*

#### **Heidi Duncan**

Bachelor of Regional and Town Planning,

Town Planner,  
Arcadis Australia Pacific



## **UQ’s Regional and Town Planning is accredited by the Planning Institute of Australia (PIA)**

### **Where can I work?**

You will be entering a dynamic industry that improves the quality of life for people in cities and regions. As a UQ graduate, employers will seek your ability to make environmentally, socially and economically sustainable decisions. You will be employed in a variety of roles in the public and private sectors, including:

- statutory or strategic planning
- regional development
- urban design
- environmental management and monitoring
- technology for planning
- spatial planning
- commercial and industrial development
- engineering and architectural applications
- heritage and conservation
- land-use planning
- planning law and practice
- resource management
- social planning
- tourism
- transport planning.



*“I chose to study at UQ because of its reputation, as it is well recognised both locally and internationally. The support from lecturers and tutors at UQ was incredible. My lecturers in strategic planning and urban design really forged my passion for planning at a macro level. The staff are genuinely interested in nurturing you to be the best planner you can be, and provide you with all the tools necessary to start you off in the world of planning.”*

#### **Nicholas Nalder**

Bachelor of Regional and Town Planning

### **For more information**

Visit [future-students.uq.edu.au](https://future-students.uq.edu.au)  
or scan the QR code





# Career ready

As a locally and globally connected university, UQ provides many opportunities for students to apply knowledge gained in the classroom to real life.

You will have access to work-integrated learning, entrepreneurial courses, local and global internships and volunteer positions to boost your confidence, capabilities and résumé.

A wide range of free programs are available to complement your studies, and to help you build a network, take on new challenges and bring your ideas to life.

## Connect with your career possibilities

From first to final year, you can plan for your successful transition from student to professional.

- **Employability:** life at UQ reaches far beyond the lecture theatre, and the careers and employability staff across UQ will help you make the most of your time at university. Our approach to employability goes beyond simply getting a job. We focus on how you can use your capabilities to perform effectively in the workplace, to create work opportunities, and to make an impact through your work. [employability.uq.edu.au](http://employability.uq.edu.au)
- **Mentoring:** UQ offers a number of mentoring programs that provide valuable leadership and guidance through all stages of your time at UQ and beyond. From supporting you with the transition to university life to fostering positive cultural, social and professional connections, programs vary from one-on-one, small group to peer community – so you can find what works for you. [my.uq.edu.au/mentoring](http://my.uq.edu.au/mentoring)

- **Volunteering:** build your skills and extend your professional and personal network while contributing to a worthy cause. UQ can assist you to find volunteer opportunities at UQ and link you with external organisations both within Australia and worldwide. [employability.uq.edu.au/volunteering](http://employability.uq.edu.au/volunteering)

## Workplace learning

Internships, placements and networking will be part of your study experience at UQ through work integrated learning. Grow your entrepreneurial mindset and professional network before you graduate.

- **Business, Economics and Law:** our students have the chance to experience work integrated learning during their program. Our employability elective course – co-created by students, staff, alumni and industry – provides the opportunity to collaborate with industry.
- **Engineering, Architecture and IT:** the Meet a Mentor program connects third and fourth-year, undergraduates, one-on-one with experienced alumni and industry professionals.





# VENTURES



Expand your mindset  
with UQ Ventures  
[ventures.uq.edu.au](http://ventures.uq.edu.au)

At UQ, we encourage every student to get involved with the Ventures entrepreneurship community. All programs are free for UQ students across all disciplines and study levels, and will help you to develop entrepreneurial skills, connect with like-minded students and create your own path. Programs are complemented by a wide range of events and competitions throughout the year, including hackathons, industry events, alumni get-togethers, workshops and pitch nights.

## Curious about where Ventures can take you?

You'll find the people, tools and opportunities to help bring your ideas to life. There's support at every stage of your Ventures journey – from flexing your creative muscles to launching a startup.

### Introductory

***Gain the skills and mindset to innovate like an entrepreneur.***

Our introductory programs will help you to get inspired, learn core entrepreneurial skills, immerse yourself in UQ's community of entrepreneurs and give you the confidence to take your first steps in your Ventures journey.

### Skills applied

***Put your knowledge into practice by solving real industry problems.***

Challenge your ideas and make them a reality by applying your new-found entrepreneurship skills to our intermediate program offerings. Test and validate the fit between your ideas and market needs while developing a sustainable business model for your product or service.

### Advanced

***Gain global connections and support to launch your own startup.***

Become a global thinker and learn from the world's most innovative startup hubs. Ventures Startup AdVentures are four-week intensive global learning experiences (virtual and in-person) in San Francisco, Shanghai, Shenzhen, Tel Aviv or Singapore.

- **Health and Behavioural Sciences:** 10 clinics providing healthcare, rehabilitation and nutrition services to the general public expose our students to the latest in equipment, tools and care.
- **Humanities and Social Sciences:** internships, field trips and placements in Brisbane, interstate and overseas are available to students. A mentoring program connecting students with industry professionals is also offered.
- **Medicine:** students undertake placements in hospitals and clinics around the world, where they are trained and mentored by doctors and healthcare specialists.
- **Science:** our researchers work with scientific and industry partners ranging from local biotech startups to peak bodies for science, agriculture, and environment, through to multinationals like RioTinto and BHP.
- **Extra-curricular opportunities:** with UQ's range of entrepreneurship programs, students can access local and global internships and work experience.

Through Ventures, you can build an entrepreneurial mindset, solve industry challenges and pursue business or social-impact opportunities.

The ilab Accelerator also supports students, researchers and alumni through the early stage of business development by providing seed funding and mentoring so they can scale their business or social enterprise.



**UniQuest**, UQ's commercialisation company, has created more than 100 startups while licensed UQ technologies have generated more than \$40 billion in gross product sales.



UQ has been in partnership with Boeing, the world's largest aerospace company, since 2003. Boeing Research & Technology–Australia (BR&T-A) is located at our St Lucia campus. Boeing collaborates with UQ researchers and students on the latest ideas in aerospace, so you can learn from their discoveries and setbacks in the classroom or directly from Boeing staff.



# 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!**

## University-wide scholarships

UQ has a range of scholarships designed to reward the achievements of outstanding school leavers – to identify, support and develop tomorrow's leaders, and to offer support to students who might not otherwise be able to attend university.

If you are completing Year 12 in 2021, or you completed Year 12 in 2020 and are on a gap year, you may be eligible to apply for a scholarship.

### UQ Academic Scholarships Program

The UQ Academic Scholarships Program is our flagship undergraduate scholarship scheme. Three scholarships are offered in the program: UQ Vice-Chancellor's Scholarships, UQ Excellence Scholarships and UQ Merit Scholarships. Up to 150 scholarships are awarded through the program each year.

### Equity scholarships

UQ strongly believes that all students deserve equal access to education. Equity scholarships are designed to financially support students from low socio-economic, disadvantaged or under-represented backgrounds.

Please note: All figures were correct at time of printing but are subject to change. See [scholarships.uq.edu.au](https://scholarships.uq.edu.au) before applying to confirm correct values.

## Study area scholarships

Many scholarships are offered for certain academic disciplines. These scholarships might be for students enrolled in a specific degree, school or faculty, or for students who are researching or studying a particular topic.

[scholarships.uq.edu.au](https://scholarships.uq.edu.au)

## Sporting

### Elite athlete support

UQ is an elite athlete-friendly university, which supports over 200 elite-level student-athletes to manage their sport and studies. Dedicated UQ Sport staff, in partnership with UQ, provide academic liaison support to negotiate flexible options for enrolment, assessment and course-related needs.

[uqsport.com.au/scholarships](https://uqsport.com.au/scholarships)

## 200+ more to choose from

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

## Engineering, Computing, Architecture scholarships

### Agility Applications Regional QLD ICT Scholarship

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) in electrical and computer or software.

**Award value: \$8000 for one year.**

### Alumni Advantage Scholarship in Electrical Engineering

To support first-year students undertaking the Bachelor of Engineering (Honours) program (including a dual program) in the field of electrical engineering or software engineering from an 'under-represented' cohort – this means that the student will be facing financial disadvantage, and/or is female, and/or is Indigenous.

**Award value: \$3000 for one year.**

### Alumni Advantage Scholarship in Computer Science

To encourage and support first-year students undertaking a Bachelor of Computer Science, from an 'under-represented' cohort – this means that the student will be facing financial disadvantage, and/or is female, and/or is Indigenous.

**Award value: \$3000 for one year.**





*“The impact that scholarships have on students is overwhelmingly positive and I can’t be thankful enough for the support I have been offered. The opportunities they have provided me have completely transformed my university experience and enriched it with invaluable academic and cultural experiences. Knowing that someone else believes in my potential and has invested in my future has strengthened my dedication to my studies. I hope that one day I too will be in a position where I can support students to pursue their dreams.”*

#### **Anastasia Laczko**

Bachelor of Engineering (Honours) (Mechatronic) / Bachelor of Information Technology (Software Design), Current Student  
UQ Scholarship recipient

#### **Leeanne Bond Scholarship for Women in Engineering**

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.

**Award value: \$5000 for one year**

#### **Faculty of Engineering, Architecture and Information Technology Year 12 International Award**

To assist international students who have completed senior high school.

**Award value: \$10,000.**

#### **Liveris Academy Undergraduate Scholarship**

The Liveris Undergraduate Scholarship was established in 2019 by global business leader Andrew Liveris and his wife Paula Liveris, who generously donated \$13.5 million to the University of Queensland to help establish the Andrew N. Liveris Academy for Innovation and Leadership in the University’s Faculty of Engineering, Architecture and Information Technology.

The Liveris Academy aspires to build a generation of effective and inspiring leaders with a mindset geared towards creating a sustainable future. The Liveris Undergraduate scholarship is maintained by the income generated from an endowed fund.

The purpose of the scholarship is to encourage and support outstanding students in the Bachelor of Computer Science, the Bachelor of Engineering (Honours) or an engineering integrated program, the Bachelor of Information Technology, the Bachelor of Science, the Bachelor of Advanced Science (Honours), the Bachelor of Mathematics or a dual program including one of these programs at The University of Queensland, who have the potential to lead solutions to some of the world’s most pressing sustainability challenges.

**Award value: \$10,000 per year for up to six years**

#### **Western Australia Alumni Regional Scholarship for Engineering**

To encourage and support a first-year student from a remote or regional area to study the Bachelor of Engineering (Honours) or Bachelor of Engineering (Honours) / Master of Engineering programs.

**Award value: \$5000 per year for up to four years.**

There are also many scholarships available for students in second and later years that provide fee relief or financial assistance.

[scholarships.uq.edu.au](https://scholarships.uq.edu.au)

#### **Warwick Solar Farm – Bright Futures Scholarship**

The Warwick Solar Farm – Bright Futures Scholarship was established in 2020 and maintained by an annual gift from Properties and Facilities Division – Energy and Sustainability, The University of Queensland.

The purpose of The Warwick Solar Farm – Bright Futures Scholarship is to encourage and support commencing first year students studying a Bachelor of Engineering (Honours), Bachelor of Information Technology, Bachelor of Architectural Design or Bachelor of Computer Science, who are from the Local Government District of the Southern Downs Regional Council and who may have experienced financial disadvantage to pursue studies at The University of Queensland.

**Award value: \$5000 for one year**

#### **Electrical Engineering and Computer Science Scholarship**

To encourage and support first-year students studying the Bachelor of Engineering (Honours) or a Bachelor of Computer Science.

**Award value: \$3000 per year**

# 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 ATAR or Queensland Year 12 Rank (prior to 2020) specified for your program
- satisfied individual program requirements (e.g. specific subject prerequisites, auditions or interviews)
- satisfied UQ's English language proficiency requirements.

If you do not meet these criteria, you might consider taking a foundation year bridging course or English language training offered by the Institute of Continuing and TESOL Education (ICTE).

## Pathway options

[future-students.uq.edu.au/admissions/undergraduate/consider-your-pathway-options](https://future-students.uq.edu.au/admissions/undergraduate/consider-your-pathway-options)

## 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/admissions](https://future-students.uq.edu.au/admissions)

## 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. You can also register for an advisory session with one of our student advisers. 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.

## Contact Us

[future-students.uq.edu.au/contact-us](https://future-students.uq.edu.au/contact-us)

## Advisory sessions

[future-students.uq.edu.au/contact-us/book-call-back](https://future-students.uq.edu.au/contact-us/book-call-back)

## Campus tours

[future-students.uq.edu.au/university-life/campus-tours](https://future-students.uq.edu.au/university-life/campus-tours)

## Program guides

[future-students.uq.edu.au/teachers-guidance-counsellors](https://future-students.uq.edu.au/teachers-guidance-counsellors)

## Fees

As an international student, you will pay tuition fees, and potentially other non-tuition 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.

Non-tuition fees paid to the University may include the student services and amenities fee, books and equipment, health insurance, administration, accommodation, and assistance to apply for or hold a student visa.

[future-students.uq.edu.au/admissions/undergraduate/review-fees-and-financial-support](https://future-students.uq.edu.au/admissions/undergraduate/review-fees-and-financial-support)

## 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-



*"I ultimately chose UQ due to its location in Brisbane and its superior reputation. I also knew that UQ had partnerships with industry-leading Australian companies and international organisations. This combined with the unique opportunity to major in Machine Learning at an undergraduate level convinced me to enrol at UQ."*

**Mallika Mukherji**

Bachelor of Computer Science

departure) fees, general living expenses, establishment costs such as buying furniture, paying a rental bond and setting up electricity, gas and mobile phone accounts, as well as return airfares, and Overseas Student Health Cover (OSHC) when you plan your budget.

[future-students.uq.edu.au/university-life/living-in-brisbane/cost-living](https://future-students.uq.edu.au/university-life/living-in-brisbane/cost-living)



**UQ has more than 20,000 international students from 142 countries**



# A truly global network

You know the importance of thinking and acting globally. So do we.

Our worldwide partner and alumni networks give you the international opportunities and connections to enhance your learning, life skills and employment prospects from the start of your degree to long after you graduate.

## While you are at UQ

### Grow your global network

As a UQ student, St Lucia, Herston or Gatton is just the first stop on your university adventure. Grow your global network through our student exchange program by studying up to two semesters of your degree at one of our 180 partner institutions in 38 countries.

You will gain program credit while expanding your world perspective, enhancing your employability, developing your network, and maybe even learning a new language. While on exchange, tuition fees at the host university are waived as you remain enrolled at and pay fees to UQ.

[employability.uq.edu.au/get-experiences](http://employability.uq.edu.au/get-experiences)

### Unlock new languages

In a global economy, the ability to communicate with a wide range of people is invaluable. Want to brush up on your language skills? Current undergraduate students can study a Diploma in Languages alongside any UQ degree. Language classes are also offered to students and the public at our Institute of Modern Languages where you can choose from more than 30 different languages.

**School of Languages and Cultures**  
[languages-cultures.uq.edu.au](http://languages-cultures.uq.edu.au)

**Institute of Modern Languages**  
[iml.uq.edu.au](http://iml.uq.edu.au)

### Take a short-term experience

While studying, you can participate in short-term global and virtual study experiences scheduled during the semester breaks, where you can immerse yourself in a new culture for two to eight weeks to enhance your academic learning and employability. If you are looking at expanding your practical skillset through short-term work experiences, opportunities for Domestic, Virtual and Global Internships are available.

[employability.uq.edu.au/get-experiences](http://employability.uq.edu.au/get-experiences)

### Make global business connections

At UQ, you will join a global network of more than 287,300 graduates, many of whom are leaders in their fields, including more than 14,500 PhDs in 170 countries. You will benefit from an extensive graduate network, strong industry partnerships and many notable alumni.

[alumni.uq.edu.au](http://alumni.uq.edu.au)

### Global Startup AdVentures

Learn alongside a startup in some of the world's most vibrant startup hot spots – including San Francisco, Shanghai, Shenzhen, Tel Aviv or Singapore.

[ventures.uq.edu.au/startup-adventures](http://ventures.uq.edu.au/startup-adventures)

### Partner for change

Global connectivity is at the heart of our vision to create knowledge leadership for a better world. From renewable energy technologies and sustainable mining practices, to disease control and child psychology, our international collaborations are working towards a cleaner, healthier and happier future. Explore our impact around the world.

[global-engagement.uq.edu.au](http://global-engagement.uq.edu.au)



We are members of the prestigious Group of Eight coalition in Australia and the leading global network of research universities, Universitas 21.

# Applying to UQ

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



## STEP 1

Choose

### Choose your program

- Read your program options (see pages 10–59)
- Visit [future-students.uq.edu.au](https://future-students.uq.edu.au).

**TIP:** Check that you meet eligibility, merit 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](https://future-students.uq.edu.au/publications-and-forms)

## STEP 2

Apply

### 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 'Application Log In' at [qtac.edu.au](https://qtac.edu.au).
2. Select 'Log In' 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](https://my.uq.edu.au/starting-at-uq) and follow the instructions.
7. Get excited about starting at UQ.

## STEP 4

Enrol

### 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](https://my.uq.edu.au/starting-at-uq).
2. Choose your courses at [my.uq.edu.au/programs-courses](https://my.uq.edu.au/programs-courses).
3. Enrol online at [sinet.uq.edu.au](https://sinet.uq.edu.au).
4. Select preferred class times via My Timetable (in my.UQ portal)
5. Pay fees (see page 67).

## STEP 5

Prepare

### Prepare for Week 1

- Complete the steps on the Starting at UQ website. [my.uq.edu.au/starting-at-uq](https://my.uq.edu.au/starting-at-uq).
- 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.
- Get answers to any remaining questions before classes start by emailing [starting@uq.edu.au](mailto:starting@uq.edu.au).

## STEP 6

Let's go!

### Get ready for the ultimate university experience

- Prep Week – jump-start your university journey.
- Orientation Week – experience a taste of #uqlife
- 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.
- Instagram (@uniofqlld) or Snapchat (uniofqlld) your UQ experience to your friends.





### Fees

Fees for 2022 are expected to be available from June 2021.

[my.uq.edu.au/fee-schedules](https://my.uq.edu.au/fee-schedules)



### It all adds up!

*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](https://insiderguides.com.au/cost-of-living-calculator)

# Plan your finances

University is a valuable investment in your future. Knowing what it costs will help you manage your money.

## Fees and costs

### Course fees and student contributions

Most undergraduate places for domestic students at UQ are funded partly by the Australian Government (Commonwealth support) and partly by you (student contribution). You need a Unique Student Identifier (USI) to obtain a Commonwealth supported place. [usi.gov.au](https://usi.gov.au)

Fees are charged according to the courses you choose, not the program you're enrolled in, so it's 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.

If you're an Australian or New Zealand citizen, or an Australian permanent humanitarian visa holder and have a Commonwealth-supported place, you may also qualify for the Higher Education Loan Program (HELP) to defer payment of your student contribution and Student Services and Amenities Fee (SSAF). You will need to apply for a tax file number, if you don't already have one, in order to obtain a HELP loan. [ato.gov.au](https://ato.gov.au)

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 at above right).

[future-students.uq.edu.au/study/programs](https://future-students.uq.edu.au/study/programs)

### Commonwealth-supported fee bands

BAND	AREA OF STUDY	ANNUAL STUDENT CONTRIBUTION*
4	Law, accounting, administration, economics, commerce, communications, society and culture	\$14,500
3	Dentistry, medicine, veterinary science	\$11,300
2	Other health, allied health, built environment, computing, engineering, surveying, science, environmental studies, pathology, visual and performing arts, professional pathway psychology, professional pathway social work	\$7950
1	Agriculture, English, mathematics, education, clinical psychology, Indigenous and foreign languages, nursing, statistics	\$3950

\*2021 figures only, based on a full-time (16 unit) workload; figures indexed annually

### Monthly cost of living

	STUDENT LIVING IN ON-CAMPUS COLLEGE	STUDENT LIVING OFF-CAMPUS / STUDENT ACCOMMODATION
Rent	\$2000-\$2800	\$480-\$1760
Utilities (gas, electricity, water)	included in rent	\$150-\$175
Food	included in rent	\$320-\$600
Mobile phone / internet	\$80-\$120	\$80-\$120
Public transport	\$40	\$50-\$100
<b>TOTAL</b>	<b>\$2120-\$2960</b>	<b>\$1080-\$2755</b>

\*This table should be taken as a guide only. For the most accurate costs of living, visit [my.uq.edu.au/starting-at-uq/student-finances/budgeting](https://my.uq.edu.au/starting-at-uq/student-finances/budgeting)

### 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 \$313 for 2021 – according to whether you're an internal or external student, and full-time or part-time. The fee is indexed annually.

[bit.ly/uq\\_ssaf](https://bit.ly/uq_ssaf)

### Keeping your costs down

- Investigate the financial support and fee payment options offered by Centrelink. [servicesaustralia.gov.au](https://servicesaustralia.gov.au)
- Explore the scholarships on offer (see page 62).
- Enjoy UQ Union's free and low-cost entertainment and activities, such as Morning Marmalade and Kampus Kitchen. [uqu.com.au](https://uqu.com.au)
- Get concessions and student discounts at participating retailers and institutions with your UQ student card.

# Program table explained

QTAC CODE	UQ CODE	MINIMUM SELECTION THRESHOLD 2021 ATAR / IB	LOWEST ATAR TO RECEIVE AN OFFER 2021		DURATION	START SEMESTER	CAMPUS	HONOURS	DUAL PROGRAM AVAILABLE	ADMISSION REQUIREMENTS
			ADJUSTED	UNADJUSTED						

## QTAC CODE

A unique code number assigned by QTAC to each individual undergraduate university program. You will need to use this number on your QTAC application.

## UQ CODE

A unique identifying number assigned by UQ for each academic program.

## MINIMUM SELECTION THRESHOLD 2021 ATAR / IB

The minimum (adjusted) selection threshold is the minimum score that was considered for an offer of a place to all applicants.

**IB** – International Baccalaureate points.

**ATAR** – The Australian Tertiary Admission Rank (ATAR) is the standard measure of overall school achievement used in all Australian states and territories (with the exception of Queensland). It is a rank indicating a student's position overall relative to other students. The ATAR is expressed on a 2000-point scale from 99.95 (highest) down to 0, in increments of 0.05. The ATAR replaced the Overall Position (OP) as the standard pathway to tertiary study for Queensland Year 12s in 2021.

## ADJUSTMENT FACTORS

Previously referred to as 'bonus points', these are a numerical value added to or used in combination with an ATAR. Common adjustment factors may include subject adjustments, enrichment studies, or educational disadvantage.

### Adjusted

The lowest ATAR to which an offer was made to recent school leavers including any adjustment factors that may have been applied.

### Unadjusted

The lowest 'raw' ATAR to which an offer was made to recent school leavers, excluding any adjustment factors.

## DURATION

The time it takes to complete a program when it is studied full-time.

**Full time.** The standard study load is eight units per semester. Full-time study is 75 per cent or more of the standard study load (i.e. six units per semester for most programs).

**Part time.** Part-time study load is less than 75 per cent of the standard study load (i.e. less than six units per semester for most programs).

## START SEMESTER

The academic year at UQ is divided into two main semesters. Semester 1 starts at the end of February and Semester 2 starts at the end of July.

## CAMPUS

One of three UQ teaching sites where the majority of lectures are held.

## HONOURS

At UQ, honours may be awarded as a one-year bachelor's honours degree after you have completed a bachelor's degree, or as a single bachelor's honours degree typically taking four years of study. Some undergraduate programs allow eligible students to transfer to a bachelor's honours degree at a defined point in the bachelor's degree. This box shows whether honours is available with a program.

## DUAL PROGRAM

Two UQ degree programs undertaken at the same time (sometimes known as dual / parallel / combined / double degree). This box lists dual programs you can choose to study with a program.

## ADMISSION REQUIREMENTS

Some programs require you to have completed specific subjects (or their equivalent) at school. Some also have additional requirements.





# Study options

UQ offers more than 140 exciting undergraduate programs to help build your dream career. For more details, check out our range of publications, or go to [future-students.uq.edu.au](http://future-students.uq.edu.au)



## Arts, Humanities, Social Sciences and Education

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



## Health, Behavioural Sciences and Medicine

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



## Business, Economics and Law

Advanced Business (Honours)  
Advanced Finance and Economics (Honours)  
Business Management  
Commerce  
Economics  
Laws (Honours)  
Politics, Philosophy and Economics (Honours)  
Tourism, Hospitality and Event Management



## Science, Mathematics, Agriculture and Environment

Advanced Science (Honours)  
Agribusiness  
Agricultural Science  
Biomedical Science  
Biotechnology (Honours)  
Environmental Management (Honours)  
Environmental Science  
Equine Science  
Mathematics  
Occupational Health and Safety Science (Honours)  
Science  
Veterinary Science (Honours)  
Veterinary Technology  
Wildlife Science



## Engineering, Design, Computing, Architecture and Planning

Architectural Design  
Chemical Engineering  
Civil Engineering  
Computer Science  
Design  
Electrical Engineering  
Information Technology  
Mechanical Engineering  
Mechatronic Engineering  
Regional and Town Planning  
Software Engineering



## Central guides

- Australian Undergraduate (pictured left)
- International Undergraduate and Postgraduate (international students can visit [future-students.uq.edu.au/publications-and-forms/international](http://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](mailto:admissions@uq.edu.au)  
[future-students.uq.edu.au](http://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

**Faculty of Science**

+61 7 3365 1888  
enquirie@science.uq.edu.au  
science.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 17–18 July 2021

**UQ Open Day 2021**

St Lucia campus  
Sunday 1 August 2021

**Semester 1, 2022**

Classes commence  
Monday 21 February 2022

CRICOS Provider 00025B

**Disclaimer**

The information in this Guide is accurate as at January 2020. However, the University has many programs and courses, and refreshes and updates its programs and course offerings from time to time and without notice. It is your responsibility to visit [future-students.uq.edu.au](https://future-students.uq.edu.au) for up-to-date information.

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