



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Appointment of EOS Chair in Optical and Microwave Engineering



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Faculty of Engineering, Architecture and Information Technology (EAIT)

The Faculty of Engineering, Architecture and Information Technology at The University of Queensland (UQ) has long, proud traditions of innovation and leadership across student education and research.

In just over a century, more than 33,000 Faculty graduates have gone on to use their UQ education to have significant impact on our state, our nation and across the world. We believe that lifelong success is fostered at UQ through great education – inspiring students to think differently, ask the difficult questions, be a positive disruptive influence, and fulfil every ounce of their potential.

Our research provides a rich and diverse flow of breakthrough technologies that are helping to improve communities around the world. From novel hydrogen storage and next generation polymers to biomedical engineering and mining safety, our research outcomes are solving problems for local and international communities, and our industry partners.

Creative problem solving – through great science, engineering and design – means faculties like ours have an increasingly vital role to play in the world's future.

eait.uq.edu.au



Faculty of Engineering, Architecture and Information Technology



CREATE CHANGE

Our ambition is to make a transformational impact on our region, and the world.

Annual research grant and industry income (2019)

\$56 Million

Rated
'Well above world standard'
in more fields than any other
Australian University.



Excellence in Research Australia

90

ARC, Advance Queensland
or UQ Fellowships
since 2015

Our community

8,277
Students



27%



73%

436

Academic Staff

22%



78%

244

Professional Staff

53%



47%

35,000 +
Alumni

21%



79%

Schools and Centres

- School of Architecture
- School of Chemical Engineering
- School of Civil Engineering
- School of Information Technology and Electrical Engineering
- School of Mechanical and Mining Engineering
- Advanced Water Management Centre
- Centre for Natural Gas

ITEE staff figures



28%



72%

58%

Domestic



42%

International



50 Teaching and Research Academics

2,598 EFTSL (2020)

\$20M+ Annual operating budget

11 Teaching Focused Academics

3000+ Undergraduate Students

\$12M Research income

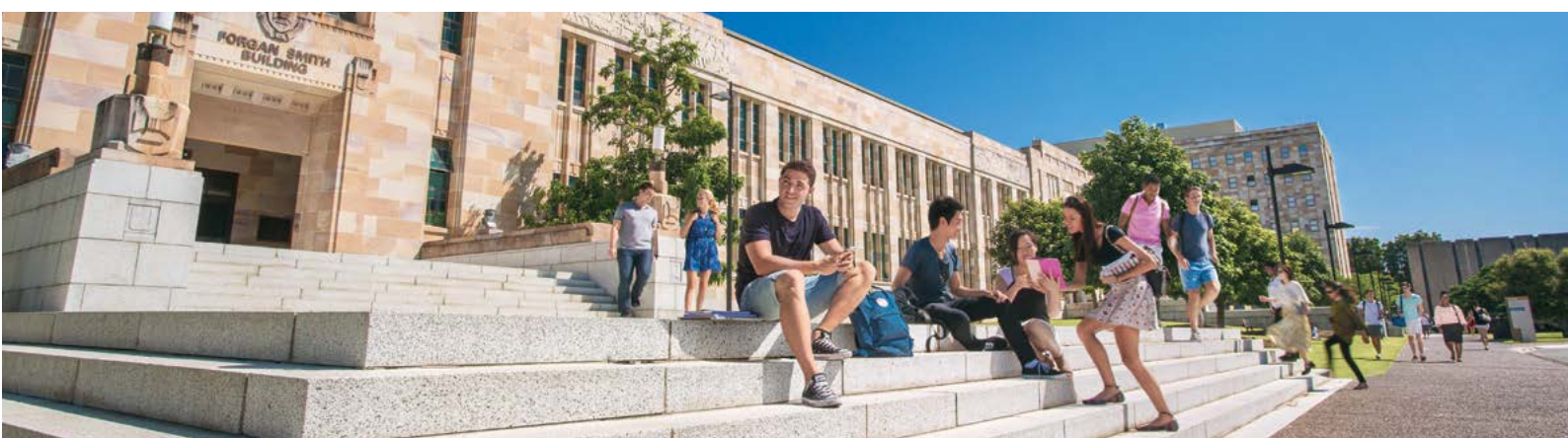
70 Research Focused Academics

900+ Postgraduate Coursework Students

\$5M from Industry and related sources

25 Professional and Technical Staff

200+ Higher Degree Research Students



School of Information Technology and Electrical Engineering (ITEE)

The School offers hands-on study programs, underpinned by cutting-edge research and innovative teaching in computer science, information technology, data science, cyber security, electrical and software engineering and interaction design.

Our programs are designed in consultation with industry through our Industry Advisory Board, and enhanced not only by our celebrated teaching team, but also with dedicated specialist laboratories, studios and the latest in software and production equipment.

Our international activities prioritise long-term partnership development with a select number of institutions in India, South-East Asia and China, as well as providing opportunities for current students to combine study and travel with a European Double Degree.

Our research focus is around health, data, automation and energy, and is contributing to a society that is more connected, healthy and secure. Staff and students within the School are widely published and attract highly competitive grant funding and industry sponsorship.

itee.uq.edu.au

School of ITEE Research focus



Biomedical Engineering

Magnetic resonance engineering, biomedical instrumentation, image analysis and biosignal analysis.



Cyber Security

Interdisciplinary research from secure quantum communications to researching policies addressing the global cyber security skills shortage.



Data Science

Data and knowledge engineering, security and surveillance, complex and intelligent systems, and eScience / eResearch services.



Human Centred Computing

Interacting with technology and the global convergence of ICT.



Power and Energy

Renewable generation integration, condition assessment of critical power infrastructure and power electronics.



Photonics and Microwave Engineering

Technologies and techniques for sensing, imaging, and communicating using electromagnetic waves.



Role of the EOS Chair in Optical and Microwave Engineering

About this opportunity

To shape the future of Optical and Microwave Engineering, the Chair will harness the power of both research and teaching excellence and will focus on the frontier disciplines of Optical and Microwave Communication Systems, Wave Propagation and Hybrid Communication Systems.

This position is expected to produce high-standard research contributions in frontier optical and microwave engineering, leading to increased international recognition for the University of Queensland's researchers, and fostering of collaboration with a cutting-edge industrial partner based in Queensland. Those contributions will help to build up an even better educational environment at the University of Queensland and establish a stronger innovation ecosystem in Queensland.

Duties

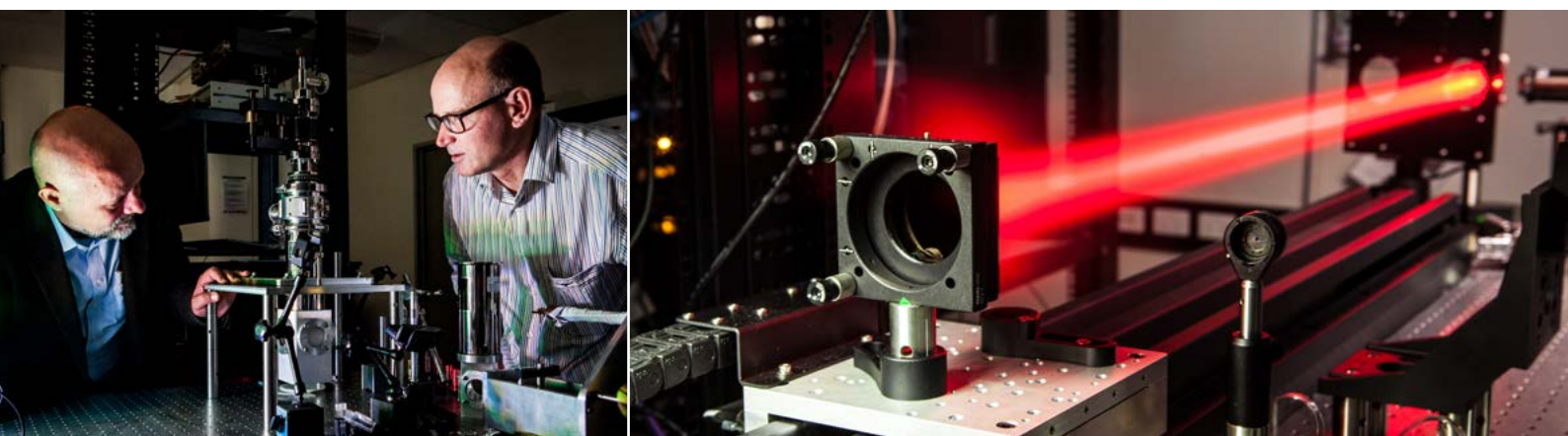
Duties and responsibilities include, but are not limited to:

Teaching

- Lead the facilitation, collaboration, education quality and continuous improvement of undergraduate and postgraduate courses in the School of ITEE to enhance the development of Optical and Microwave Engineering.
- Provide leadership and develop new innovative course offerings in the evolving applications of Optical and Microwave Engineering in Space and Broadband Satellite Communications.
- Consult with and provide advice and mentorship to undergraduate and postgraduate students.

Research

- Build effective strategic collaborations with Australia's Space agency and Defence Science and Technology.
- Make distinguished research contributions through significant knowledge and research especially in Optical and Microwave Engineering and engage with relevant and appropriate stakeholders.
- Maintain a record of international recognition and leadership in the field and produce quality research outputs by publishing in high quality journals.
- Initiate and lead funding initiatives and applications as chief investigator role in applications for significant research funding to support projects and activities, which includes actively seeking, obtaining and managing research funding.
- Develop collaborative research projects across UQ and in other institutions to build capacity in the disciplines of optical and microwave engineering.
- Conduct engineering education research, publish scholarly papers and foster the research activities of others.



Supervision and researcher development

- Establish and lead a research team, including industry partnerships, drive individual/team commitment in the pursuit of results and mentor more junior academics and researchers.
- Attract postgraduate students and postdoctoral fellows, and external funding.
- Act as Principal Supervisor to Higher Degree by Research students.

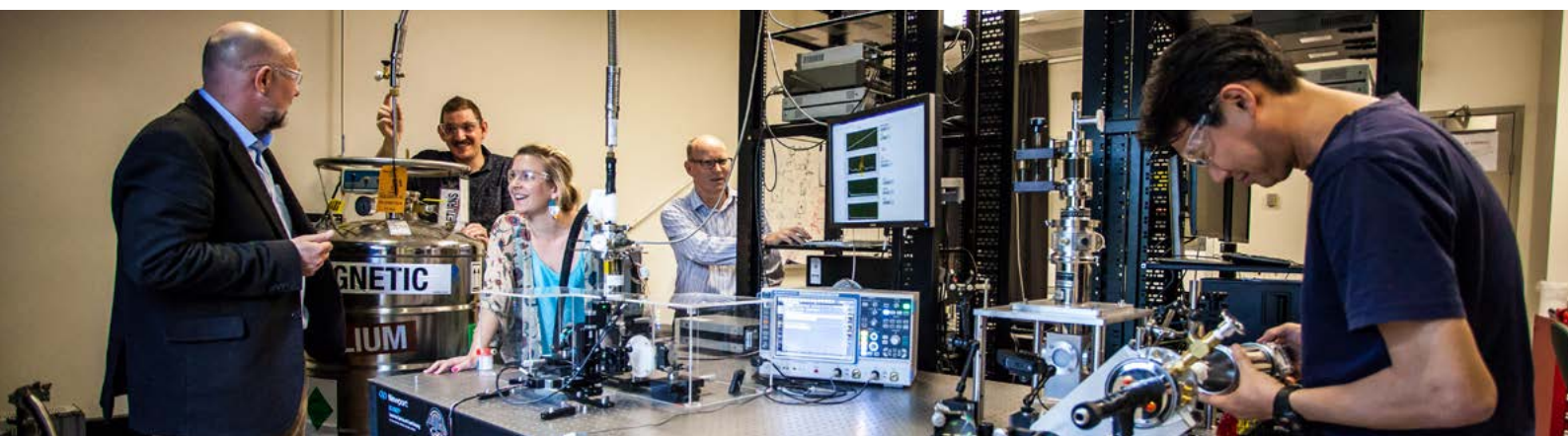
Citizenship and service

- Lead and contribute to processes that enable the academic team to manage the work of the School, including participation in School decision-making and chairing sub-committees and working groups.
- Perform a range of higher-level internal duties and provide a strong contribution to activities relevant to the discipline and the external community including industry.
- Actively engage with government departments, professional bodies and the wider community to foster relationships and partnerships.
- Close engagement with industry and other stakeholders, such as EOS and EM Solutions.
- Any other duties as reasonably directed by your supervisor.

Other

Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including but not exclusive to:

- The University's [Code of Conduct](#).
- Requirements of the Queensland occupational health and safety (OH&S) legislation and related [OH&S responsibilities and procedures](#) developed by the University or Institute/School.
- The adoption of sustainable practices in all work activities, and compliance with associated legislation and related University [sustainability responsibilities and procedures](#).
- Requirements of the *Education Services for Overseas Students Act 2000*, the *National Code 2007* and associated legislation, and related [responsibilities and procedures](#) developed by the University.



About you

- PhD in the area of Optical and Microwave Engineering, or equivalent in a relevant discipline with a distinguished record of scholarly teaching and academic leadership.
- International recognition and demonstrated international leadership in the field of Optical and Microwave Engineering.
- Significant experience in liaising and collaborating with external agencies (academic, research, government, and/or industry) to develop co-operative research initiatives.
- Strengths in influencing and negotiation, including the ability to develop and maintain effective relationships with key internal and external constituents and stakeholders in an institutional, local state, national and international context.
- Highly developed interpersonal, communication and relationship management skills with the ability to consult effectively with stakeholders and to develop shared visions and goals.
- Must be eligible for Australian security clearance.

Selection committee

The selection committee for this appointment will be chaired by Professor Aidan Byrne, Provost and Senior Vice-President.



Conditions of employment

Employment type

The EOS Chair role is a full-time, continuing appointment at Academic Level E.

Salary and benefits

An attractive remuneration package will be negotiated with the successful candidate. Remuneration will be subject to periodic review. The incumbent is entitled to four weeks annual leave, 10 days personal leave and an additional five days carer's leave. Other terms and conditions of employment may be negotiated. Employees of The University of Queensland are eligible for a range of perks and benefits, including:

- Salary packaging through Remserv and Smartsalary
- Corporate Healthcare through UQ's Corporate Healthcare Provider, Bupa
- Access to the Fitness Passport scheme, as well as UQ Sport's facilities
- Low-cost car parking options

The University will meet all reasonable removal and establishment expenses. In the case of an interstate or international appointee, an accommodation allowance may be available for a limited period. Details will be negotiated as part of the contract of employment.

How to apply

Applications should include a cover letter, a full curriculum vitae and a statement addressing the selection criteria. Applicants should provide the names and contact details of at least three potential referees. These referees need not be approached in advance, as they will not be contacted without the prior consent of the applicant.

Applications must be submitted via the [UQ Careers](#) portal.

For more information, or any questions regarding this position, please contact Caylee-Jade Eve, Principal Advisor, at recruitment@uq.edu.au.



The University of Queensland

For more than a century, The University of Queensland (UQ) has created positive change for society by delivering knowledge leadership for a better world.

UQ ranks among the world's top universities, as measured by several key independent rankings, including the CWTS Leiden Ranking (41), U.S. News Best Global Universities Rankings (36), the Performance Ranking of Scientific Papers for World Universities (38), QS World University Rankings (47), Academic Ranking of World Universities (51), and Times Higher Education World University Rankings (=54).

At UQ, we're changing the way higher education is imagined and experienced. Our students enjoy innovative and flexible learning options, diverse and dynamic partnership opportunities, and an integrated digital and campus learning environment.

More than 56,000 students – including the majority of Queensland's highest academic achievers as well as top interstate and overseas students – study across UQ's three beautiful campuses in South East Queensland at St Lucia, Herston and Gatton. They include around 20,000 postgraduate and approximately 21,000 international students who contribute to a diverse, supportive and inclusive campus community.

With a strong focus on teaching excellence, having won more national teaching awards than any other Australian university, UQ is committed to providing students with the best opportunities and practical experiences during their time with us, empowering them with transferable knowledge and skills that will prepare them to exceed expectations throughout their careers.

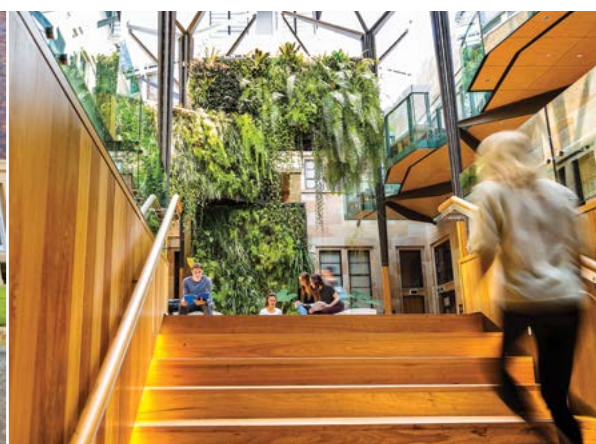
UQ's 307,000 graduates are an engaged network of global alumni spanning more than 170 countries, and include more than 15,800 PhDs.

UQ's six faculties, eight globally recognised research institutes and more than 100 research centres attract an interdisciplinary community of 1,500 scientists, social scientists and engineers, who champion research excellence and continue UQ's tradition of research leadership. This is reflected in UQ being the number one recipient of Australian Research Council Fellowships and Awards nationally across all scheme years (452 awards worth \$339 million).

UQ has an outstanding track record in commercialising innovation, with major technologies employed across the globe and gross product sales of more than US\$44 billion.

UQ is one of only three Australian members of the global Universitas 21; a founding member of the Group of Eight (Go8) universities; a member of Universities Australia; a member of the Association of Pacific Rim Universities (APRU); and one of only three Australian charter members of the prestigious edX consortium, the world's leading not-for-profit consortium of massive open online courses (MOOCs).

UQ employs more than 6,900 academic and professional staff (full-time equivalent) and has a \$2.385 billion annual operating budget.



Governance

The University of Queensland is governed by a 22-member Senate representing University and community interests. Senate is led by the Chancellor, elected by the Senate. The University of Queensland Act 1998 grants Senate wide powers to appoint staff, manage and control University affairs and property, and manage and control finances to promote the University's interests.

uq.edu.au/about/governance

Strategic direction

By 2032, UQ will be known as a university that:



Delivers highly sought-after graduates, who are prepared for future success through rich and broad educational experiences



Leads as a premier provider of high-quality postgraduate and lifelong learning opportunities



Leverages the breadth and depth of its research capabilities and vibrant precincts to address the world's most pressing challenges



Is a trusted and agile partner widely regarded as a leader in entrepreneurship, knowledge exchange and commercialisation



Has an extensive global reach in education and research with a strong commitment to capacity building in the Indo-Pacific



Breaks down barriers to education through the targeted and effective Queensland Commitment



Is values-led, deeply committed to delivering for the public good and supporting our people, leading reconciliation, and embracing different life experiences and perspectives



Strategic plan 2022–2025

Our vision

Knowledge leadership for a better world.

Our mission

Our core purpose is to deliver for the public good through excellence in education, research and engagement with our communities and partners: local, national and global.

Our values

What we strive for

Creativity

We apply our creativity as a way of seeking progress. We value new ideas, seek fresh perspectives and pursue game-changing innovations and opportunities

Excellence

We strive for excellence in everything we do. We apply the highest standards to our work to achieve the greatest impact for the benefit of communities everywhere.

Central to what we do

Truth

Truth is central to all that we do as a university. We seek truth through our focus on the advancement and dissemination of knowledge, and our deep commitment to academic freedom and freedom of expression.

How we work together

Integrity

We always act with integrity. As stewards of the University's resources and reputation, we are honest, ethical and principled.

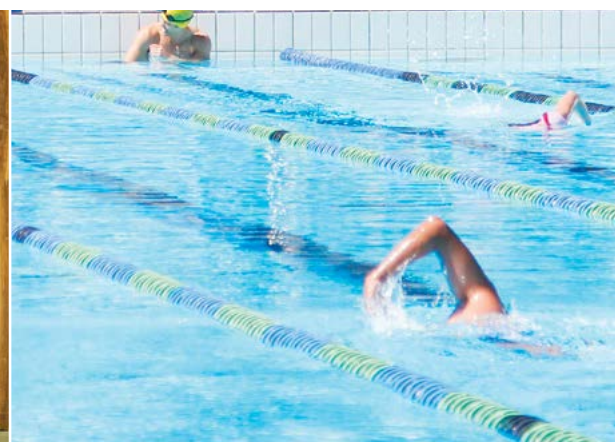
Courage

We are courageous in our decision-making. We are ambitious, bold and agile. We demonstrate moral courage, so that we are always guided by a sense of what is right.

Respect and inclusivity

We provide a caring, inclusive and empowering environment for all. We engage respectfully with one another and promote the value that our diversity brings to our whole community.

about.uq.edu.au/strategic-plan



Leadership capability expectations

The UQ Leadership Framework identifies seven key capabilities that define leadership in the UQ context. The framework aligns with UQ's strategic direction, and mission, vision and values.

Achieves results and drives accountability

Leaders ensure engagement and performance, and motivate and empower others to achieve results.

Communicates and collaborates with influence

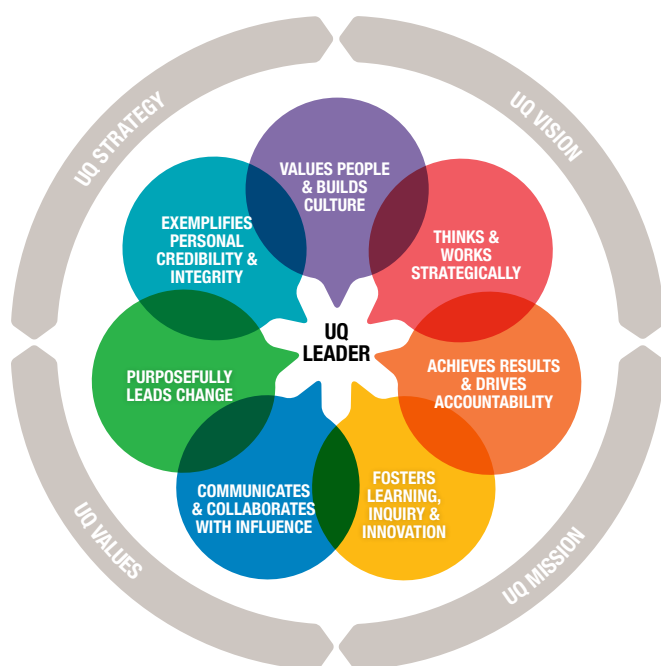
Leaders engage others in open and honest dialogue about important issues and actively seek common interests and goals.

Exemplifies personal credibility and integrity

Leaders strive for personal achievement and are visibly proactive and ethical in their dealings with others.

Fosters learning, inquiry and innovation

Leaders nurture an environment that allows for multiple perspectives, challenge assumptions, and model openness to new ideas.



Purposefully leads change

Leaders initiate and lead change and improvement agendas, modelling behaviour that embraces innovation and change.

Thinks and works strategically

Leaders create and communicate a clear direction for the future, aligned with UQ's vision.

Values people and builds culture

Leaders create a positive, constructive workplace where people feel connected and valued.



About Brisbane

Brisbane is the sunny, sophisticated capital city of Queensland and gateway to its many famous attractions. Australia's third largest city and fastest-growing capital with a population of more than 2.2 million, it offers a safe, friendly, multicultural environment. The inner city is characterised by the Brisbane River, parklands, convention facilities, museums, art galleries, a casino, malls, shopping districts and a host of cosmopolitan restaurants and cafes.

Brisbane offers a range of lifestyle benefits including climate, culture, family fun and sport. Residents and visitors can combine art and outdoor adventure in Brisbane, where South Bank's cultural institutions and restaurants meet riverside gardens and a lagoon. Take a paddle steamer or ferry down the Brisbane River, abseil Kangaroo Point cliffs and bike ride through the City Botanic Gardens. Go for a day trip to Moreton Island, Noosa, the Sunshine Coast or the Gold Coast with just a short drive to each beautiful destination. National Parks, rainforests and attractions such as Australia Zoo, Dreamworld and other theme parks are also a short drive away.

The perfect place to raise a family, Brisbane is one of the safest cities in Australia and boasts a wide range of cultural attractions, numerous theatres, art galleries and a world-class museum; the city is dubbed a food and drink lover's paradise. Brisbane is one of Australia's most liveable and affordable capital cities. Brisbane enjoys a subtropical climate providing sunny days almost all year round, with enough rainfall to keep the city and suburbs cool and green.

Just an hour south of Brisbane's CBD is the Gold Coast, where the high-rises are built around superb beaches like Surfers Paradise with lively nightlife, international theme parks and designer boutiques. A few hours drive north from Brisbane is the Great Barrier Reef, one of the 'natural wonders of the world'. As the largest World Heritage Area, it stretches more than 2,000 kilometres alongside the coast, and is home to around 1,500 species of fish and 350 types of coral. Stradbroke, Moreton and Fraser Islands are also world-famous attractions that are close to Brisbane, and offer some of the largest sand dunes in the world.

A leader in education

Brisbane has a wide range of high-quality schools at primary and secondary level, religious or non-denominational, single-sex or co-educational, with many offering excellence programs or other specialty features such as the International Baccalaureate. Brisbane also offers some of the greatest learning institutes in Australia, with three major internationally recognised universities on offer. Each Brisbane university offers a high-quality learning environment with access to some of Australia's finest institutions covering all areas of study from law and medicine through to business, marketing, tourism, IT and biotechnology. The University of Queensland (UQ) is one of Australia's leading research and teaching institutes, ranking among the world's top universities.

Lifestyle

In the heart of Brisbane city, Queen Street Mall is a vibrant shopping and lifestyle precinct and is Australia's most popular pedestrian mall. Brisbane is also the home for many of Queensland and Australia's major sporting events in rugby league, rugby union, AFL and cricket.

Brisbane residents have excellent access to healthcare in both public and private sectors, covering hospitals, general practitioners, dentists and other allied healthcare professionals. The numerous public and private hospitals include the Princess Alexandra Hospital, the Mater Hospital network, The Queensland Children's Hospital and the Royal Brisbane and Women's Hospital. Urgent and emergency medical care is readily available to everyone.



Further information

General information on the University is available through the University's website:
uq.edu.au

Other documents which you may wish to refer to include:

- Annual Report:
about.uq.edu.au/organisation/policies-procedures-guidelines/annual-reports
- Governance:
about.uq.edu.au/governance
- Key statistics:
pbi.uq.edu.au/ClientServices/UQStatistics/index.aspx
- Organisation chart:
about.uq.edu.au/files/5643/org-chart.pdf
- Research at UQ:
research.uq.edu.au
- Strategic Plan 2022–2025:
about.uq.edu.au/strategic-plan
- UQ Global Strategy:
global-strategy.uq.edu.au
- UQ Reconciliation Action Plan:
about.uq.edu.au/reconciliation/plan
- UQ Aboriginal and Torres Strait Islander Employment Strategy:
staff.uq.edu.au/files/24066/uq-indigenous-employment-strategy-2019.pdf





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