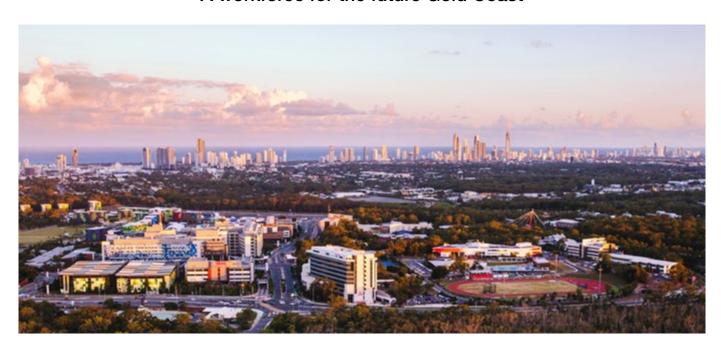
## **BEYOND THE HORIZON**

#### A workforce for the future Gold Coast



# GOLDCOAST.

"

A vibrant business and innovation community, together with government and educational institutions, nurtures the Gold Coast's renowned entrepreneurial culture to develop the next-generation of exciting start-ups and innovative employees.

"

Join us to find your beyond.

The Gold Coast is an exciting city in transformation, with a diversifying economy and an expanding workforce of skilled health and knowledge professionals to meet the needs of businesses in the digital, Industry 4.0 era.

Long known for its stunning natural environment and enviable lifestyle, the Gold Coast is perfectly positioned for business investment and talent attraction, and as a destination for higher education, research and vocational training.

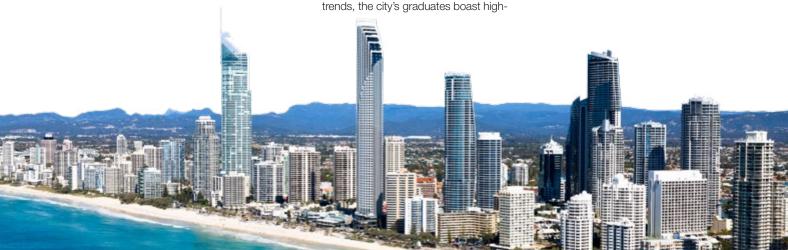
The Gold Coast attracts students from around the world, along with some of the best global talent and boasts an emerging pool of graduates for the jobs and businesses of the future, including in Asia-Pacific's emerging innovation hub, the Gold Coast Health and Knowledge Precinct (GCHKP).

Following and indeed leading global trends, the city's graduates boast high

level skills for the digital age to support new and emerging fields in advanced design and engineering, personalised medicine, biomedical technologies, drug and vaccine development, artificial intelligence, big data and more.

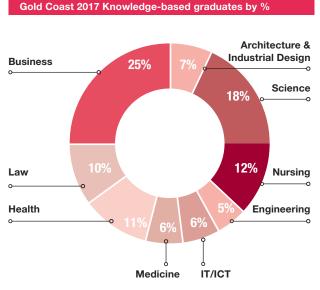
With three universities, TAFE Queensland and a range of other vocational education providers, students have diverse and comprehensive study options at undergraduate and post-graduate level, including an increasing number of higher degree research opportunities as well as specialised qualifications and micro-credentials in emerging fields.

Educational providers are committed to strong engagement with industry to develop cutting-edge degrees and course programs and deliver the skills, entrepreneurial ideas and graduate pipeline industry needs now, and beyond the horizon.



## Thousands of job-ready, knowledge-based graduates





## Increasing skills in science, health and research



#### **Engineering**

Undergraduate qualifications increased by 12% from 2014–2017.

This was driven by strong growth in Civil Engineering as well as Mechanical Engineering courses.



# Architecture & Industrial Design

Graduate numbers in this field have almost doubled from 2014 to 2017. Masters graduates in the fields of Architecture and Built Environment have

grown by 55% since 2014.



# Griffith University Higher Degree Research (HDR) Growth

Engineering up 42%
Medical Science up 60%
(2015–17)





#### IT/ICT

Growth in graduate numbers has been driven by a significant increase in the Bachelor of Digital Media course (12% increase from 2014 to 2017) and Master of IT.



#### Medicine

Growth has been driven by an increase in postgraduate qualifications (up 38% since 2014).

KPMG - Data Disclaimer For the purpose of this analysis, knowledge-based workers have been classified as people that have undergraduate and/or postgraduate qualifications in Business, Science, Nursing, Engineering, IT & ICT, Medicine, Law, Health, or Architecture and Industrial Design. • IT/ICT stands for Information Technology/Information and Communications Technology. • Data sources include Griffith University (Gold Coast Campus only), Southern Cross University (Gold Coast Campus only), Bond University and TAFE QLD - Gold Coast Region. • Graduate data for the knowledge-based categories was gathered from 2014 to 2017. • In the case that a student graduated with a combined degree the primary degree/faculty was counted. • The data for TAFE QLD - Gold Coast

### Educational choice, quality and innovation

**Griffith University** With Australia's top university teacher and the nation's top higher degree research supervisor, Griffith is a comprehensive, research-intensive university ranking in the top 2% of universities worldwide and 35th in the world for universities under 50. Griffith has 41 research areas ranked above or well-above world standard, including four broad areas, Physical Sciences, Chemical Sciences, Environmental Sciences and Technology receiving the highest possible rating of '5'. **griffith.edu.au** 

**Bond University** As Australia's first private, non-profit university turns 30, Bond is ranked in the top 20 small universities in the world, and in the 2018 Good University's Guide was awarded more 5-star rankings in the student experience category than any other university in Australia - for the thirteenth year in a row, and No 1 for employer

satisfaction with graduates in the government's 2018

Employer Graduation Survey. bond.edu.au

**TAFE Queensland** Offering more than 250 quality vocational education courses across a range of programs. Awarded best large training provider of vocational education and training for the last 4 years in a row, TAFE Queensland boasts impressive student and career outcomes with 93 per cent employer satisfaction, 87 per cent student satisfaction and 86 per cent graduates employed or in further study within six months of graduating. **tafe.qld.edu.au** 

**Southern Cross University** With its Gold Coast campus by the beach, Southern Cross is proud to be a progressive institution, engaging with the communities it serves to create change with impact around the world, and ranked No 1 in Australia for international student support. **scu.edu.au** 

# Innovative Courses and Programs

#### **Griffith University**

- Bachelor of Intelligent Digital Technologies
- Bachelor of Data Science
- Electronic and UAV Engineering (degree majors)
- Master of Electronic and Energy Engineering
- Master of Electronic and Sport Engineering
- Master of Biotechnology
- Master of Cyber Security

# Southern Cross University

- Bachelor of Digital Business (one of only two programs of its kind in Australia)
- Podiatry/Pedorthics (Australia's only double degree) speciality)

#### **Bond University**

- Master of Healthcare Innovations (Australian first)
- Master of Business Administration in Health
- Master of Business Data Analytics
- Master of Actuarial Sciences (specialisation)
- Master of Laws in Enterprise Governance
- Master of Project Innovation/Master of Project Management

#### Gold Coast TAFE

- Certificate IV in Cyber Security
- Diploma of Information Technology Networking
- Diploma of Business/Diploma in Leadership and Management

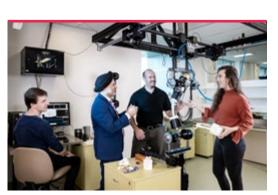
## **Career Case Study**

Kaecee Fitzgerald is undertaking her PhD in 3D design, working in a collaborative team as part of a \$900,000 BioMedTech Horizon's project with industry, led by Griffith University.

Working with clinical lead, orthopaedic surgeon Professor Randy Bindra, biomedical engineers Professor David Lloyd and Dr David Saxby, and fellow Phd candidate in Mechanical Engineering (Robotics) Alistair Quinn, Kaecee's role is to match 3D design technology and materials with clinical and engineering requirements to create artificial wrist ligament.

Kaecee relishes the opportunity to work across disciplines, with multiple supervisors, in a challenging project that pushes the boundaries of 3D printing technology to create anatomical accuracy and eventually deliver personalised patient implants.

"It is unusual to have a PhD that is so genuinely practical. I get a little bit bored if I'm just working in one discipline, so I love to get all the different perspectives and be able to bring them together as we progress the design. It's a slow process that can be tedious, but when it works its euphoric."



PhD candidate Alistair Quinn (left), Professor Randy Bindra, Dr David Saxby and Kaecee Fitzgerald

### An entrepreneurial mindset

#### **Griffith University**

From start-up innovation challenges, prizes and hackathons to dedicated entrepreneurship courses and access to innovation and co-working labs and spaces, students benefit from a range of opportunities that produce business-ready graduates. The Griffith Innovation Centre provides innovation and entrepreneurial education and training for research-active participants through a range of mentoring and coaching programs in a dedicated space in the GCHKP.

#### **Bond University**

All undergraduate and postgraduate students, no matter what discipline, have access to the Transformer program, an Australian-first entrepreneurship initiative offered as a fee-free, extracurricular option. The Bond Business Accelerator is a 12-week 'bootcamp' program turning ideas into enterprises. The ultimate incubator for early stage start-ups, it combines the essential ingredients of formal training, practical skills, high level mentoring and investor introductions.

#### **Southern Cross University**

The Digital Enterprise Lab is based at the Gold Coast campus and is a hub for research, experimentation and an educational focus on digital technology driven innovations. The Enterprise Lab, based at SCU's Lismore campus, provides start-up incubation, while students have access to entrepreneurial programs through SCU's partnership with other NSW universities and TAFE NSW in the Sydney School of Entrepreneurship.

## Top talent

Professor Johnson Mak is a prominent HIV researcher who has held a range of appointments including the Peter Doherty Fellowship, Monash Fellowship, Pfizer Fellowship and the ARC Future Fellowship.

"I was a Hong Kong born Canadian and I trained in Canada and came to Australia, to Melbourne, about 20 years ago. The thing that attracted me to the Gold Coast, and the Institute for

Professor Johnson Mak, Institute for Glycomics, Griffith University

Glycomics in particular, is the strong collaboration and translational focus – they have a great business team to bring discoveries from bench to bedside."

Professor Mak, his team and collaborators are taking a Glycomics approach to HIV, probing the role glycans or sugars play in helping the virus, with a view to new antiviral treatments.



# A Changing Gold Coast Economy

Growth in Health (28%), Professional & Scientific (24%) and Education and Training (18%) jobs since 2012 – increasing share of the economy (now 26%), growing faster than overall employment (16.7%)

(Source: National Economics - NIEIR)



Maddie McIntyre.
Business Manager,
Materialise Australia

Materialise, a global additive manufacturing pioneer, was attracted to the Gold Coast Health & Knowledge Precinct due to the long-term vision of the precinct, the strong support from the city, the research strengths of Griffith University and the relevant skills and expertise

being developed on the Gold Coast in the fast-moving 3D printing software arena.

As a Queensland graduate, it's great to be able to locate our Australian HQ here and employ our growing workforce from the local skills base.

The Gold Coast's Workforce of the Future is proudly being supported by:

Study Gold Coast - Australia's favourite classroom RDA Gold Coast - growing a strong and dynamic Gold Coast economy Gold Coast Health and Knowledge Precinct - your new business horizon





