



## Bachelor of Engineering (Domestic students)

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### Program code

1310

### Commencing in

For Continuing Students Only

### Available at

### Duration

4 years full-time

### Credit points

320

## About this program

Engineering disciplines at the Gold Coast campus include:

- Civil Engineering (Trimester 1 and 2 intakes)
- Electrical and Electronic Engineering (Trimester 1 and 2 intakes)
- Electronic and Biomedical Engineering (Trimester 1 intake only)
- Mechanical Engineering (Trimester 1 and 2 intakes)
- Mechatronic Engineering (Trimester 1 intake only)

### Civil Engineering

You'll develop knowledge and skills in the planning, design, management, construction and maintenance of civil engineering projects; as well as the communication, research and critical analysis skills which are vital to a successful career as a professional engineer. In your final year, your skills will be enhanced through off-campus industry experience to prepare you for a smooth entry into the workforce. Overall, you'll complete at least 60 days engineering professional practice. If you're a student of outstanding ability, you'll have the opportunity to undertake the Bachelor of Engineering (Advanced Studies), in which you'll complete both the regular degree and specialist project work, performed under the supervision of academic staff and designed to develop exceptional understanding in a major area of your choosing.

### Electrical and Electronic Engineering

Electrical and electronic engineers design and create devices and equipment which use electrical energy. The program covers the fundamentals of electrical and electronic engineering, and provides a wide range of knowledge and technical skills in key areas such as communications, power generation and electrical machinery, digital signal processing, microprocessors and control systems. Emphasis is on the fundamental principles and techniques so that you'll be able to learn and adapt to new technologies in the future. In your final year, your skills will be enhanced through off-campus industry experience to prepare you for a smooth entry into the workforce. Overall, you'll complete at least 60 days engineering professional practice. If you're a student of outstanding ability, you'll have the opportunity to undertake the Bachelor of Engineering (Advanced Studies), in which you'll complete both the regular degree and specialist project work, performed under the supervision of academic staff and designed to develop exceptional understanding in a major area of your choosing.

### Electronic and Biomedical Engineering

Electronic and biomedical engineers are trained to develop and implement high technology electronic solutions to assist in the training and analysis of athletes, to help clinicians monitor patients, and to assist in patient and sports rehabilitation. This program is based on an electronics degree with specialist sport and biomedical courses. In your final year, your skills will be enhanced through off-campus industry experience to prepare you for a smooth entry into the workforce. Overall, you'll complete at least 60 days engineering professional practice. If you're a student of outstanding ability, you'll have the opportunity to undertake the Bachelor of Engineering (Advanced Studies), in which you'll complete both the regular degree and specialist project work, performed under the supervision of academic staff and designed to develop exceptional understanding in a major area of your choosing.

### Mechanical Engineering

Mechanical Engineering at Griffith will provide you with a broad education in this exciting discipline designed to give you the skills necessary to become a professional mechanical engineer. Good mechanical engineering is built on a strong foundation of theory, reinforced by experience and innovation. Mechanical engineers are heavily involved in the development and use of new

materials and technologies, as well as design and analysis using the most advanced software and computer systems. Our emphasis on mechanical design provides you with the widest range of career opportunities. Electives allow you to develop a number of specialities including vehicle technology.

## **Mechatronic Engineering**

Mechatronic engineering combines mechanics with electronics and computer systems. Mechatronic engineers design and create machinery that integrates with electronics and computer control. This program prepares you to work with innovative technologies in many different applications: intelligent machines, micro-machines, smart devices, control systems for consumer products, and robotics. The program covers the fundamentals of mechanical, electrical and electronic engineering and provides a wide range of fundamental knowledge and technical skills in key areas such as mechanics, signal processing and analysis, and sensor technology. In your final year, your skills will be enhanced through off-campus industry experience to prepare you for a smooth entry into the workforce. Overall, you'll complete at least 60 days engineering professional practice. If you're a student of outstanding ability, you'll have the opportunity to undertake the Bachelor of Engineering (Advanced Studies), in which you'll complete both the regular degree and specialist project work, performed under the supervision of academic staff and designed to develop exceptional understanding in a major area of your choosing.

## **My attendance during the program**

### **Attendance information**

The Bachelor of Engineering is offered full-time (as eight full-time standard trimesters) on-campus at the Gold Coast. You may choose to study courses at other campuses if or where the program structure allows.

As a full-time student you will generally attend 20-25 hours of scheduled classes per week throughout the trimester. Classes may be scheduled during the day and evening throughout the week. From third year onwards, some classes may be available for study off campus or on weekends.

### **Student Income Support**

To be classed as a full-time student, you are required to enrol in a minimum number of credit points each standard study period. The minimum credit points for full-time enrolment in this program is 30 credit points.

Trimester 1 and Trimester 2 are deemed standard study periods. As Trimester 3 is a non-standard study period, continuing students moving from one year to the next will not be required to study during this trimester to be eligible for student income support.

Domestic students who commence in Trimester 3 may be eligible for student income support from the onset of study provided they are enrolled full-time in this study period.

Please refer to the [Australian Government website](#) for more details.

### **Work-integrated learning**

An integrated program of exposure to industry practice will be built into the program. Practising engineers will be directly involved in the learning and teaching process, particularly through involvement with laboratory and tutorial sessions. Staff will draw upon their industry/professional experience in choosing their laboratory activities, their projects and/or case studies and problems. Field trips will enhance awareness of the current industry/professional practice. The final year industrial affiliates program provides a capstone WiL experience, integrating technical expertise with the practical issues of professional/industry practice.

## **My career opportunities**

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#### **Civil Engineering**

You will graduate with extremely strong career prospects. The program's employment rate is fuelled by strong demand in the South-East Queensland region, one of the most rapidly expanding urban growth areas in Australia. Graduates are employed in many areas of both the public and private sectors, including local and state government departments and small to large multinational consulting firms. Past graduates have obtained jobs with civil and structural consulting firms, and some are with government bodies such as the Gold Coast City Council and the Department of Transport and Main Roads.

#### **Electrical and Electronic Engineering**

Graduates in electrical and electronic engineering should find employment in a wide range of fields, particularly in areas where rapid changes in technology are occurring.

Graduates may find employment with service industries such as Telstra, Optus and electricity authorities such as Pacific Power and Energy Australia; large private industrial groups, such as Ericsson, Boeing Australia, IBM, and Alcatel; small innovative private firms specialising in the application of new technologies to new products and services, in a range of areas such as telecommunications and wireless electronics, internet services and biomedical instrumentation.

A career in electrical and electronic engineering offers challenging opportunities over a wide range of activities from research and design to operations, management and planning.

### **Mechanical Engineering**

Mechanical engineering is the most diverse of all the engineering disciplines. As a result, graduates work in a range of industries including design, research and development and production.

Mechanical engineers are currently working on the development of cutting edge technologies in (amongst others), the medical, automotive, marine and aerospace sectors, the renewable energy sector and the sports.

### **Mechatronic Engineering**

Mechatronic engineers can find employment throughout a wide range of fields that are normally covered by mechanical, electrical and computer engineering.

Graduates may find employment with: companies which design and manufacture consumer machines such as washing machines and motor vehicles; companies which design, manufacture and install specialised industrial machines for agriculture, mining and manufacturing; companies whose primary interests relate to mechanical, electrical or computer engineering; small to medium high technology companies involving automation.

### **Electronic and Biomedical Engineering (offered from 2014)**

Graduates of Electronic and Biomedical engineering may be involved in the rapidly growing commercial market for health and fitness applications, both software and hardware. They may also find employment in the world wide market for designing or installing and servicing smart instruments for biomedical and healthy lifestyles applications. As engineers, making the technology happen, they may also support medical, biological and sports research teams. Some graduates may choose to work as electronics engineers.

Electronic and Biomedical engineering graduates have a number of opportunities to move into higher degree research.

## **Program accreditation**

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On graduation, you will be eligible for membership of [Engineers Australia](#) with corresponding international recognition.

## **What are the fees?**

### **Commonwealth supported students**

- The fee is indicative of an annual full-time load (80 credit points) in a program categorized to one of the Australian Government's three broad discipline areas (student contribution bands). A student's actual annual fee may vary in accordance with his or her choice of majors and electives. The Australian Government sets [student contribution amounts](#) on an annual basis.
- [Find out more...](#)

### **Fee-paying undergraduate (domestic) students**

These fees are only applicable to domestic students who are not Commonwealth supported including:

- Full-fee paying domestic students who commenced their program prior to 2009.
- International students who have been approved to pay domestic tuition fees after obtaining Australian or New Zealand citizenship or permanent residency or a permanent humanitarian visa and who have not obtained a Commonwealth supported place.

### **Tuition fees**

- A fee-paying undergraduate student pays tuition fees.
- Students are liable for tuition fees for the courses they are enrolled in as at the census date.
- The tuition fee is charged according to the approved program fee for the trimester in which the student is enrolled.
- [Find out more...](#)

### **FEE-HELP**

Eligible undergraduate fee-paying students may defer their tuition fees by taking out a FEE-HELP loan which is part of the Higher Education Loan Program (HELP). Payment of the loan is via the taxation system when income reaches a specified level.

- [Higher Education Loan Program \(HELP\)](#)

### **Further information**

- [Calculating tuition fees](#)
- [Fees and Charges Policy:](#)
  - [Schedule E - Fees for Undergraduate Students \(Non-international\)](#)
- [Financial help and support](#)