

Bachelor of

# Engineering (Electrical and Electronic) (Honours)



| LOCATION    | ENTRY THRESHOLD | QTAC CODE | START                  |
|-------------|-----------------|-----------|------------------------|
| Moreton Bay | 60.00           | 014711    | Semester 1, Semester 2 |

Harness the power of a changing world. Electrical and electronic engineers play a role in almost every aspect of modern life, from smartphones to energy systems powering cities. Learn to design, develop and maintain systems of all shapes and sizes.

In this program you will:

- Study fundamentals of engineering, including applied maths, physics, statics and systems design
- Develop in-depth skills in electrical and electronic engineering theory, standards and practice
- Complete specialist courses in circuit design and analysis, electrical power systems (including renewable energy), robotics and automation, computer programming and more
- Understand social, economic and environmental dimensions of engineering, and the importance of sustainable development
- Develop advanced problem solving, communication and project management skills

Career opportunities

- Design, manufacture, testing and maintenance of electrical and electrical systems
- Infrastructure construction
- Data communications
- Aviation
- Mining
- Power generation and transmission
- Renewable energy
- Automotive
- Automation
- Robotics
- Domestic appliances

Accreditation

This program is currently undergoing provisional accreditation by Engineers Australia.

Post admission requirements

Students must complete 60 days of suitable engineering work experience.

## Program structure

Introductory courses (8) 96 units

ENG100 Materials in Engineering

ENG101 Professional Engineering

ENG104 Engineering Design

[usc.edu.au/sc404](http://usc.edu.au/sc404)

University of the Sunshine Coast | CRICOS Provider Number: 01595D | Correct as at 20 May 2024

Study options and teaching period of offer can vary depending on the study location. For full details, visit [usc.edu.au](http://usc.edu.au).

Duration

4 years

Full-time or equivalent part-time

Indicative 2024 fees

A\$7,818 - 2024 Fees (CSP)

Fees are indicative only and will change based on courses selected and are subject to yearly increases

Prerequisites

English (Units 3 and 4, C)

Recommended prior study

Maths Methods and/or

Specialist Maths; and Physics or Chemistry

Delivery mode

Blended Learning

Total courses

31

Total units

384

UniSC program code

SC404

ENG105 Engineering Statics  
ENG106 Engineering Computing  
MTH103 Introduction to Applied Mathematics  
MTH104 Introductory Calculus  
SCI107 Physics

Developing courses (9) 96 units

ELC200 Digital Logic and Computer Programming  
ELC206 Analog and Digital Electronics  
ELC207 Communications Engineering  
ENG200 Professional Practice(0 units)  
ENG206 Sustainable Engineering (Design)  
MCH201 Systems and Signals  
MCH202 Electrical Machines and Drives  
MTH201 Calculus II and Linear Algebra  
MTH203 Numerical Analysis

Graduate courses (14) 192 units

ELC300 Electronic Design  
ELC302 Digital Signal Processing  
ELC305 Power Electronics and System Analysis  
ENG305 Engineering Management  
ENG306 Engineering System Design  
MCH302 Robotics and Autonomous Systems  
MCH303 Engineering Computer Applications and Interactive Modelling  
MEC308 System Dynamics and Control  
ELC401 Advanced Digital Communications  
ELC403 Electrical Power Distribution Engineering  
ELC404 Advanced Digital and Embedded Systems  
ENG406 Engineering Project 1(24 units)  
ENG407 Engineering Project 2(24 units)  
MCH402 Advanced Control Systems Engineering

Honours

The Bachelor of Engineering (Electrical and Electronic) (Honours) may be awarded with Honours.

The class of Honours awarded to a student is calculated using the mean mark achieved when completing the 96 units of AQF8 level courses (400 coded).

| HONOURS RESULTS CLASSIFICATION | MEAN MARK ACHIEVED IN AQF8 COURSES (400 CODED) |
|--------------------------------|--|
| Honours Class I                | 80% - 100%                                     |
| Honours Class IIA              | 70% - 79.5%                                    |
| Honours Class IIB              | 60% - 69.5%                                    |
| Honours Class III              | 50% - 59.5%                                    |
| Marginal Fail                  | 47% - 49.5%                                    |
| Fail                           | 0% - 46.5%                                     |

Note: Program structures are subject to change. Not all UniSC courses are available on every UniSC campus.

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