

Bachelor of Engineering (Electrical and Electronic Engineering) (Honours)

2019

Undergraduate

Gain the fundamental knowledge and principles necessary for a career in electrical and electronic engineering.

Electrical engineers devise solutions to generate and use electrical power efficiently and cleanly, while electronic engineers design, implement and maintain electronic devices and systems, including those found in communications, defence, hospitals, and more.

In this program your study will include the generation, distribution and application of electrical energy, and the design and control of the electrical and electronic devices and systems required to power and improve life for people and communities.

You'll have a wide range of options to specialise in various sub-areas of electrical and electronic engineering, including:

- generation, distribution and conversion of electrical energy
- control systems
- analogue and digital electronics
- power electronics and drives
- communications and network engineering
- biomedical electronics and engineering
- audio signal processing
- image processing
- biomedical signal processing
- sensors and measurement technologies
- instrumentation
- computer engineering and embedded systems

Career outlook

Career opportunities in this field include work in a range of industries including:

- automotive
- auto-electronics
- defence
- electrical supply industry
- government departments
- health and medical
- manufacturing
- power generation
- public transport
- renewable energy
- robotics and automation
- tech startups
- telecommunications
- transport
- aviation

Professional recognition

This program is fully accredited by Engineers Australia. Graduates of the program are eligible for graduate membership of Engineers Australia. Full membership as a professional engineer may be obtained after an appropriate period of professional practice.

Australia is one of 15 countries that are signatories to the International Engineering Alliance, also known as the Washington Accord, for professional engineers. The qualification of graduates from this degree is recognised in all countries that are signatories to the Accord.

Industry connections

You'll have opportunities to engage with industry from the beginning of your degree.

Through work placements, industry projects, internships, seminars and events, you'll be in contact with industry every step of the way.

You'll have the chance to do 12 weeks' work experience, research projects in collaboration with industry and the opportunity to work overseas with leading organisations.

International opportunities

RMIT encourages you to aspire to a global career, not just a local one, and as an engineering student you'll have a range of global opportunities.

Through partner organisations in Europe, Asia and the United States, the RMIT International Industry Experience and Research Program (RIERP) offers workplace training and academic research placements of between six and 12 months.

There are also opportunities to study abroad through Education Abroad.

Program snapshot

Program code: BH073

Duration

Full-time: 4 years

Location

City and Bundoora campuses

Most lectures take place at the City campus and some lab classes will run at specialised facilities at the Bundoora campus.

Selection mode

ATAR (2018: 80.60)

How to apply

Semester 1: VTAC
vtac.edu.au

Semester 2: Direct to RMIT
rmit.edu.au/programs/apply/direct

Fees

For local fee information:
rmit.edu.au/programs/fees

Contact

Info Corner
330 Swanston Street
(cnr La Trobe Street)
Melbourne VIC 3000
Tel. +61 3 9925 2260

rmit.edu.au/programs/bh073

Program structure

Years 1 and 2

You'll learn the fundamentals of electrical and electronic engineering, including the essential mathematics and physics tailored for electrical and electronic engineers. Project work will develop your high-level technical and design skills. You'll gain communication, teamwork and leadership skills.

Year 3

There are three compulsory courses with a focus on engineering design and research methods for engineers.

You will choose five advanced courses from one or more of four main study areas - electrical, electronic, communication, computer and network engineering.

Year 4

You'll undertake a major individual engineering design project demonstrating high levels of technical competence and organisational skills as well as exercising enterprise skills.

Your final year (capstone) project will develop and reinforce the skills and knowledge you need - as defined by Engineers Australia - to commence your professional engineering career.

A wide range of technical electives will be made available in electrical and electronic engineering that will deepen your technical knowledge, enrich your skill set and develop your engineering and professional capabilities. You have the option of specialising in one area or pick electives from several areas for a more generalist program. Either way, you'll be industry ready and equipped with communication, management and teamwork skills.

You may also complete a work-integrated learning (industry experience) elective in Year 2, 3 or 4.

Year 1	Introduction to Professional Engineering Practice	Engineering Mathematics A	Engineering Computing 1	Electrical Engineering Analysis
	Circuit Theory	Digital Systems Design 1	Physics 1	University elective
Year 2	Mathematics for ECE	Electrical Engineering 1	Signals and Systems 1	Program elective
	Introduction to Embedded Systems	Engineering Design 2	Electronics	University elective
Year 3	Engineering Design 3A	Program elective	Program elective	Program elective
	Engineering Design 3B	Research Methods for Engineers	Program elective	Program elective
Year 4	Engineering Capstone Project Part A	Program elective	Program elective	Program elective
	Engineering Capstone Project Part B	Program elective	Program elective	Program elective

Compulsory courses
 Program electives
 University electives

Please note: This is an example of the program structure. Courses may change and may not be available each semester.