

Bachelor of Engineering (Telecommunications Engineering) (Honours)

2019

Undergraduate

Studying telecommunications engineering at RMIT will give you the skills to find better ways to design, provision and utilise telecommunications, now and for the future.

During this program, you'll learn the fundamentals and processes behind the design of modern telecommunications systems and services, including the Internet, and mobile and satellite systems.

You'll learn about a wide range of communications technologies, including optical fibre and wireless systems (such as 4G mobile and Wi-fi), the Internet, cable systems, and satellite communications. As a professional you'll then be able to apply these systems and technologies to various civilian and defence applications such as radar, weather monitoring, global positioning, sensor networks, and provision of services such as voice, video and streaming services over the Internet.

In your third or fourth year, this program offers the option to take a minor in either communications engineering (focusing on the specification, design, and maintenance of physical communication links and circuits), or network engineering (focusing on creating integrated communications networks, management of information flow, delivery of internet and data services, and network security).

Industry connections

As an RMIT engineering student, 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.

Career outlook

Graduates of this degree are keenly sought after by industry to design and manufacture telecommunications products, as well as designing and maintaining telecommunications infrastructure, services and networks.

Typical employers include:

- telecommunications service providers
- education research and development organisations
- government organisations including transport, defence, security, meteorology and emergency services

You may also run your own commercial or consulting business.

Professional recognition

This program will apply for full accreditation by Engineers Australia as soon as possible within the accreditation timelines set down by Engineers Australia. Upon accreditation being granted, graduates of the program will be 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. Upon full accreditation of this program, graduates will have their qualification recognised in all 18 countries that are signatories to the Accord.

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 (RIIERP) 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: BH071

Duration

Full-time: 4 years

Location

City campus

Selection mode

ATAR (2018: Not published)

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/bh071

Program structure

Years 1 and 2

You'll learn the fundamentals of telecommunications engineering, plus the mathematics and physics that support this discipline.

All engineering students will also study an Introduction to Engineering course, incorporating a humanitarian-focused Engineers Without Borders Challenge. You'll have the opportunity to extend this aspect of your studies by completing an Engineers Without Borders elective, enabling you to experience humanitarian engineering first-hand.

Years 3 and 4

Your final two years are specialisation years, aiming at making you work-ready. You will have the opportunity to take a minor in either communication engineering or network engineering, where you will develop advanced skills in telecommunications technologies.

You'll complete major design projects, individually and in teams, to develop professional skills in research, problem solving, teamwork, leadership, project management and communication.

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.

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

Program elective examples:

- Advanced Mobile and Wireless Systems Engineering
- Computer and Network Security
- Network Management and Software Defined Networks
- Optical Fibre Systems and Networks
- Radar Systems
- Satellite Communication Systems Engineering

Year 1	Engineering Mathematics A	Physics 1	Engineering Computing 1	Introduction to Professional Engineering Practice
	Electrical Engineering Analysis	Circuit Theory	Digital Systems Design 1	University elective
Year 2	Mathematics for ECE	Communication Engineering 1	Network Fundamentals and Applications	Signals and Systems 1
	Engineering Design 2	Electronics	Introduction to Embedded Systems	University elective
Year 3	Engineering Design 3A	Network Engineering	Communication Engineering 2	Research Methods for Engineers
	Engineering Design 3B	Optical Fibre Systems and Networks	Wireless and Guided Waves	Communication or network engineering minor course
Year 4	Engineering Capstone Project Part A	Communication or network engineering minor course	Communication or network engineering minor course	Telcommunications elective
	Engineering Capstone Project Part B	Communication or network engineering minor course	Telcommunications elective	Telcommunications 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.