Bachelor of Engineering (Electrical Engineering)(Honours)/Bachelor of Business (Management)

Combine the technical skills for designing solutions to electrical engineering problems, with the management skills to plan, implement and supervise projects.

In this program, your creative engineering skills will be backed up with strategic skills for their implementation. These skills are becoming increasingly important to the energy, resource, manufacturing and design sectors.

You'll learn the fundamentals of electrical engineering as well as essentials of business management including marketing, economics, and logistics.

Engineering solutions often involve project work, and the combined skills of this double degree will provide you with an edge in managing such projects.

Industry connections

In the final year of your studies you’ll undertake a major project that is either industry-based or simulates an industrial situation. Combining and further developing the key theoretical and practical knowledge necessary for your field - as defined by Engineers Australia - you’ll work with industry leaders to solve a project challenge.

Before graduating from this program, you are strongly encouraged to complete a minimum 12 weeks of engineering industry experience. This allows you to gain first-hand experience in an engineering practice environment under the supervision of a practising professional engineer. The nature and timing of this engineering experience can take a range of forms.

Opportunities exist for an overseas work placement of between six and 12 months. These placements are normally taken during a one-year break in the middle or at the end of the third year of the degree.

Career outlook

Work opportunities exist in government organisations and private companies, both in Australia and overseas.

You could be able to design and supervise projects in the fields of renewable energy, power generation and distribution, industrial and process automation or developing new technologies for transportation.

You could also choose to start your own business, delivering services in your specialist area.

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.

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 broad through Education Abroad.
Program structure

**Years 1, 2 and 3**

Your first three years will introduce you to the fundamentals of electrical engineering, including mathematics and physics.

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.

The business management component of your studies will include marketing, economics and logistics.

You’ll also complete a work-integrated learning (industry experience) elective in Year 3 or 5.

**Years 4 and 5**

In your final two years, you’ll specialise in electrical energy and power systems and complete two major design projects.

A large portion of your study will be practical work in laboratories and on computers, where you’ll use your design and problem-solving 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.

### Program electives

**University electives**

**Compulsory courses**

<table>
<thead>
<tr>
<th>Year</th>
<th>Course 1</th>
<th>Course 2</th>
<th>Course 3</th>
<th>Course 4</th>
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<tbody>
<tr>
<td>Year 1</td>
<td>Engineering Computing 1</td>
<td>Engineering Mathematics A</td>
<td>Physics 1</td>
<td>Introduction to Management</td>
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<tr>
<td>Year 2</td>
<td>Electrical Engineering Theory</td>
<td>Electrical Engineering Analysis</td>
<td>Accounting in Organisations and Society</td>
<td>University elective</td>
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<tr>
<td>Year 3</td>
<td>Electrical Engineering 1</td>
<td>Mathematics for ECE</td>
<td>Signals and Systems 1</td>
<td>Macroeconomics 1</td>
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<tr>
<td>Year 4</td>
<td>Electronics</td>
<td>Digital Systems Design 1</td>
<td>Introduction to Professional Engineering Practice</td>
<td>Prices and Markets</td>
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<tr>
<td>Year 5</td>
<td>Introduction to Embedded Systems</td>
<td>Ethics and Governance</td>
<td>Commercial Law</td>
<td>Electrical Energy Conversion</td>
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<tr>
<td>Year 6</td>
<td>Engineering Design 3A</td>
<td>Work in Global Society</td>
<td>Creativity, Innovation and Design</td>
<td>Management in Practice</td>
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<tr>
<td>Year 7</td>
<td>Engineering Design 3B</td>
<td>Power System Analysis and Control</td>
<td>Control Systems</td>
<td>Research Methods for Engineers</td>
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<tr>
<td>Year 8</td>
<td>Engineering Capstone Project Part A</td>
<td>Contemporary Management: Issues and Challenges</td>
<td>Engineering elective</td>
<td>Engineering elective</td>
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<tr>
<td>Year 9</td>
<td>Engineering Capstone Project Part B</td>
<td>Strategic Management</td>
<td>Engineering elective</td>
<td>Engineering elective</td>
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<tr>
<td>Year 10</td>
<td>Engineering Capstone Project Part C</td>
<td>Business elective</td>
<td>Engineering elective</td>
<td>Business elective</td>
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Please note: This is an example of the program structure. Courses may change and may not be available each semester.