Biomedical engineering is one of the fastest growing branches of engineering. It combines knowledge of electronic, mechanical, chemical and materials-engineering, with the life sciences of medicine, biology and molecular biology.

### Your studies
This degree covers all aspects of biomedical engineering, including biomedical technology, biology, biomechanics, biomaterials, orthopaedic engineering, tissue engineering, medical regulation, bioelectronics, medical instrumentation, and computational simulation of biomedical systems.

You can choose from a wide range of specialised biomedical engineering electives including orthopaedic engineering, advanced biomedical computing, e-medicine, biomechatronics, medical regulation, neuromodulation, advanced bioelectronics, biotechnology, biophysics, membrane science and biomedical product development.

You’ll carry out a final year thesis project, which involves studying, designing and demonstrating an engineering system – often in collaboration with industry or a hospital.

### Your career
Biomedical engineers work with doctors and medical scientists, researching and designing ways to improve healthcare and medical services.

Career options include:
- clinical support specialist
- instrumentation engineer
- medical device assessor
- patent examiner
- field service engineer
- design and manufacture of implantable and external medical devices.

### Majors
There are over 15 engineering majors to choose from. Majors that best align with this stream are:
- Chemical Engineering
- Electrical Engineering
- Information Technology
- Mechanical Engineering
- Mechatronic Engineering.

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### Course Table

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated Engineering 1</td>
<td>Integrated Engineering 2</td>
</tr>
<tr>
<td>Biomedical Engineering 1A &amp; B</td>
<td>Biomedical Engineering 2</td>
</tr>
<tr>
<td>Chemistry 1A</td>
<td>Fundamentals of Electrical &amp; Electronic Engineering</td>
</tr>
<tr>
<td>Computing</td>
<td>Anatomy &amp; Physiology for Engineers</td>
</tr>
<tr>
<td>Mechanics</td>
<td>Mechanical Design 1</td>
</tr>
<tr>
<td>Maths</td>
<td>Materials 1</td>
</tr>
<tr>
<td></td>
<td>Biomedical Electives</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated Engineering 3</td>
<td>Integrated Engineering 4</td>
</tr>
<tr>
<td>Manufacturing Engineering</td>
<td>Tissue Engineering</td>
</tr>
<tr>
<td>Biomedical Design &amp; Technology</td>
<td>Biomechanics &amp; Biomaterials</td>
</tr>
<tr>
<td>Electronic Devices &amp; Circuits</td>
<td>Practical Experience</td>
</tr>
<tr>
<td>Biomedical Electives</td>
<td>Thesis A &amp; B</td>
</tr>
<tr>
<td>Other Electives</td>
<td>Biomedical Electives</td>
</tr>
<tr>
<td></td>
<td>Control Unit</td>
</tr>
</tbody>
</table>

Sample course table only. Refer to sydney.edu.au/courses for full information.
Engineering at Sydney

As one of the top 30 engineering and technology universities in the world*, we will provide you with the leadership skills to develop innovative, creative and sustainable solutions that promote positive change.

Clear pathways, widest choice

Our engineering degree options cover aeronautical, mechanical, mechatronic, biomedical, chemical and biomolecular, civil, electrical, and software engineering.

With more than 15 majors, you have the option to personalise your degree:
- Chemical Engineering
- Computer Engineering
- Construction Management
- Electrical Engineering
- Environmental Engineering
- Geotechnical Engineering
- Information Technology (Engineering)
- Materials
- Mechanical Engineering
- Mechatronic Engineering
- Power Engineering
- Space Engineering
- Structures
- Telecommunications Engineering
- Transport Engineering

You can broaden your career options even further by combining your degree with studies in arts, law, architecture, science, commerce, music or medical science. Combined degrees are mostly five years in length and very popular, as they allow you to combine a range of interests.

Flexible First Year Program

If you’re not sure in which area of engineering you’d like to specialise, our Flexible First Year program (UAC code 511756) gives you the time and freedom to discover where your strengths and interests lie before deciding.

Advanced Engineering program

Our Advanced Engineering program is open to students demonstrating outstanding academic ability (indicative ATAR of 97.5 or above). You will take advanced units covering topics such as sustainability and humanitarian issues, business planning and strategy, technology and education. You will also participate in small groups working on problems relevant to the community. You may take any engineering stream within this program. Apply directly through UAC (UAC code 511700).

Assumed knowledge

These HSC subjects are assumed knowledge for our engineering degrees:
- Mathematics Extension 1
- Physics and/or Chemistry (depending on stream)

The whole you, not just your ATAR

If you would like to study engineering subjects at university but are worried about making the ATAR cut-off, don’t worry. Our Flexible Entry scheme considers your ATAR as well as your performance in maths and science subjects, and your leadership capability. Apply at:
- sydney.edu.au/engineering/flexibleentry

Globally recognised qualifications

Our engineering degrees are accredited by Engineers Australia, so you will graduate with a prestigious qualification that is recognised worldwide.

Scholarships

We offer more than 500 University-wide scholarships to undergraduates every year. The Faculty of Engineering and Information Technologies also offers a variety of entry, merit and industry scholarships.

For more information about scholarships visit:
- sydney.edu.au/engineering/scholarships
- sydney.edu.au/scholarships

*QS World University Rankings 2015/16

Faculty of Engineering and Information Technologies

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sydney.edu.au/ask-domestic
sydney.edu.au/ask-international

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