Overview

The UNSW Bachelor of Engineering (Honours) is designed to equip you for a career as a professional engineer. We provide you with a solid background in mathematics, natural sciences and computing that will prepare you for learning knowledge and skills in an engineering discipline specialisation. You will get the chance to apply yourself to engineering design and enquiry projects, professional engineering practice, engineering and technical management and conduct research towards your thesis project.

The four year program is offered in 19 engineering disciplines (listed below). A flexible first year engineering stream is offered for students who wish to study engineering but choose to delay their choice of which branch of engineering to study until the end of Year 1.
<table>
<thead>
<tr>
<th><strong>Faculty</strong></th>
<th>Faculty of Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Campus</strong></td>
<td>Kensington</td>
</tr>
<tr>
<td><strong>Study Level</strong></td>
<td>Undergraduate</td>
</tr>
<tr>
<td><strong>Typical duration</strong></td>
<td>4 Years</td>
</tr>
<tr>
<td><strong>Delivery Mode</strong></td>
<td>Face-to-face</td>
</tr>
<tr>
<td><strong>Intake Period</strong></td>
<td>Term 1, Term 2, Term 3</td>
</tr>
<tr>
<td><strong>Academic Calendar</strong></td>
<td>3+ Calendar</td>
</tr>
<tr>
<td><strong>Minimum Units of Credit</strong></td>
<td>192</td>
</tr>
<tr>
<td><strong>Award type</strong></td>
<td>Bachelors Honours</td>
</tr>
<tr>
<td><strong>Award(s)</strong></td>
<td>Bachelor of Engineering (Honours) - BE (Hons)</td>
</tr>
<tr>
<td><strong>UAC Code</strong></td>
<td>425000</td>
</tr>
<tr>
<td><strong>CRICOS Code</strong></td>
<td>056835E</td>
</tr>
</tbody>
</table>
Learning Outcomes

1. Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline.
   - Scholars

2. Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline.
   - Scholars

3. In-depth understanding of specialist bodies of knowledge within the engineering discipline.
   - Scholars

4. Discernment of knowledge development and research directions within the engineering discipline.
   - Scholars

5. Knowledge of engineering design practice and contextual factors impacting the engineering discipline.
   - Scholars  Professionals  Global Citizens

6. Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline.
   - Scholars  Professionals  Global Citizens

7. Application of established engineering methods to complex engineering problem solving.
   - Scholars  Professionals  Global Citizens

8. Fluent application of engineering techniques, tools and resources.
   - Professionals  Scholars

   - Global Citizens  Professionals  Scholars

10. Application of systematic approaches to the conduct and management of engineering projects.
    - Professionals  Global Citizens  Leaders  Scholars

11. Ethical conduct and professional accountability.
    - Global Citizens  Professionals

12. Effective oral and written communication in professional and lay domains.
13. Creative, innovative and pro-active demeanour.

14. Professional use and management of information.

15. Orderly management of self, and professional conduct.

16. Effective team membership and team leadership.

**Graduate Capabilities:**

For more information on Graduate Capabilities, please click on this link.
# Program Structure

Students must complete 192 UOC as a standalone program.

1. 168 UOC stream
2. 12 UOC General Education
3. 12 UOC Electives (Foundational Disciplinary or Disciplinary Knowledge Courses)

All students are also required to complete 60 days of Industrial Training.

## Majors

Students must complete at least one of the specialisations below.

### HONOURS:

<table>
<thead>
<tr>
<th>Code</th>
<th>UOC</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEROAH</td>
<td>168</td>
<td>Aerospace Engineering</td>
</tr>
<tr>
<td>BINFAH</td>
<td>168</td>
<td>Bioinformatics Engineering</td>
</tr>
<tr>
<td>CEICAH</td>
<td>168</td>
<td>Chemical Engineering</td>
</tr>
<tr>
<td>CEICDH</td>
<td>168</td>
<td>Chemical Product Engineering</td>
</tr>
<tr>
<td>COMPBH</td>
<td>168</td>
<td>Computer Engineering</td>
</tr>
<tr>
<td>CVENAH</td>
<td>168</td>
<td>Civil Engineering</td>
</tr>
<tr>
<td>CVENBH</td>
<td>168</td>
<td>Environmental Engineering</td>
</tr>
<tr>
<td>Course Code</td>
<td>UOC</td>
<td>Program Name</td>
</tr>
<tr>
<td>------------</td>
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<td>--------------------------------------------------</td>
</tr>
<tr>
<td>ELECAH</td>
<td>168</td>
<td>Electrical Engineering</td>
</tr>
<tr>
<td>ELECCH</td>
<td>168</td>
<td>Quantum Engineering</td>
</tr>
<tr>
<td>GMATDH</td>
<td>168</td>
<td>Surveying</td>
</tr>
<tr>
<td>GMATEH</td>
<td>168</td>
<td>Geospatial Engineering</td>
</tr>
<tr>
<td>MANFBH</td>
<td>168</td>
<td>Mechanical and Manufacturing Engineering</td>
</tr>
<tr>
<td>MECHAH</td>
<td>168</td>
<td>Mechanical Engineering</td>
</tr>
<tr>
<td>MINEAH</td>
<td>168</td>
<td>Mining Engineering</td>
</tr>
<tr>
<td>MTRNAH</td>
<td>168</td>
<td>Mechatronic Engineering</td>
</tr>
<tr>
<td>PETRAH</td>
<td>168</td>
<td>Petroleum Engineering</td>
</tr>
<tr>
<td>SENGAH</td>
<td>168</td>
<td>Software Engineering</td>
</tr>
<tr>
<td>SOLAAH</td>
<td>168</td>
<td>Photovoltaics and Solar Energy</td>
</tr>
<tr>
<td>SOLABH</td>
<td>168</td>
<td>Renewable Energy Engineering</td>
</tr>
</tbody>
</table>
Telecommunications

**Discipline Elective List**

Students must take 12 UOC from the Discipline Elective List for the engineering specialisation. Students should check the details in the specialisation page.

**General Education**

Students must take at least 12 UOC of the following courses.

any General Education course

**Level 3 Maturity Requirements**

Students must have completed 42 UOC before taking any of the following courses.

any level 3 course

**Level 4 Maturity Requirements**

Students must have completed 102 UOC before taking any of the following courses.

any level 4 course

**Industrial Experience Requirement**

Students must complete a minimum of 60 days of Industrial Training to graduate. Industrial Training must be undertaken concurrently with enrolment in the program.

For more information on Industrial Training, please visit https://www.engineering.unsw.edu.au/study-with-us/engineering-students-industrial-training

**Sample Programs**

To access sample program(s), please visit:

Engineering (Honours)

**Enrolment Disclaimer**
Unless advised otherwise by your program authority, you should follow the rules for the handbook for the year you commenced your program. You are also responsible for ensuring you enrol in courses according to your program requirements. myUNSW enrolment checks that you have met enrolment requirements such as pre-requisites for individual courses but not that a course will count towards your program requirements.
Related Programs

Related Double Degree Programs

Bachelor of Science (Advanced Mathematics) (Honours) - BSc(AdvMath)(Hons)
Bachelor of Engineering (Honours) - BE (Hons)
**3761 Advanced Mathematics (Honours) / Engineering (Honours)**

Faculty: Faculty of Science, Faculty of Engineering
Campus: Kensington
Units of Credit: 288
Typical Duration: 6 Years

Read More

Bachelor of Advanced Science (Honours) - BAdvSci(Hons)
Bachelor of Engineering (Honours) - BE (Hons)
**3762 Advanced Science (Honours) / Engineering (Honours)**

Faculty: Faculty of Science, Faculty of Engineering
Campus: Kensington
Units of Credit: 288
Typical Duration: 6 Years

Read More

Bachelor of Engineering (Honours) - BE (Hons)
Bachelor of Commerce - BCom
**3764 Engineering (Honours) / Commerce**

Faculty: Faculty of Engineering, UNSW Business School
Campus: Kensington
Units of Credit: 264
Typical Duration: 5.7 Years

Read More

Bachelor of Engineering (Honours) - BE (Hons)
Bachelor of Laws - LLB
**3765 Engineering (Honours) / Law**

Faculty: Faculty of Law, Faculty of Engineering
Campus: Kensington
Units of Credit: 312
Typical Duration: 6.7 Years

Read More

Bachelor of Music - **BMus**
Bachelor of Engineering (Honours) - **BE (Hons)**

**3766 Music / Engineering (Honours)**

Faculty: Faculty of Arts and Social Sciences, Faculty of Engineering
Campus: Kensington
Units of Credit: 312
Typical Duration: 6.7 Years

Read More

Bachelor of Engineering (Honours) - **BE (Hons)**
Bachelor of Science - **BSc**

**3767 Engineering (Honours) / Science**

Faculty: Faculty of Engineering, Faculty of Science
Campus: Kensington
Units of Credit: 240
Typical Duration: 5 Years

Read More

Bachelor of Music (Honours) - **BMus (Hons)**
Bachelor of Engineering (Honours) - **BE (Hons)**

**3769 Music (Honours) / Engineering (Honours)**

Faculty: Faculty of Arts and Social Sciences, Faculty of Engineering
Campus: Kensington
Units of Credit: 312
Typical Duration: 6.7 Years

Read More

Bachelor of Engineering (Honours) - **BE (Hons)**
Bachelor of Engineering Science - **BEngSc**

**3773 Engineering (Honours) / Engineering Science**

Faculty: Faculty of Law, Faculty of Engineering
Campus: Kensington
Units of Credit: 240
Typical Duration: 5 Years

Read More
Bachelor of Engineering (Honours) - **BE (Hons)**
Bachelor of Surveying - **BSurv**

**3776 Engineering (Honours) / Surveying**

Faculty: Faculty of Engineering  
Campus: Kensington  
Units of Credit: 240  
Typical Duration: 5 Years

Read More

Bachelor of Engineering (Honours) - **BE (Hons)**  
Bachelor of Science - **BSc**

**3785 Engineering (Honours) / Computer Science**

Faculty: Faculty of Engineering  
Campus: Kensington  
Units of Credit: 240  
Typical Duration: 5 Years

Read More

Bachelor of Engineering (Honours) - **BE (Hons)**  
Bachelor of Arts - **BA**

**3961 Engineering (Honours) / Arts**

Faculty: Faculty of Engineering, Faculty of Arts and Social Sciences  
Campus: Kensington  
Units of Credit: 264  
Typical Duration: 5.7 Years

Read More
Program Requirements

Progression Requirements

Students must show cause not to be excluded from the program if they have any of the following:

2 fails in any given core course

after half or more of the BE stream attempted (more than 84UOC), 50% or more of BE stream courses have been failed

prior to the final 48 UOC of the stream (120 UOC or more of the BE stream completed), a WAM of less than 50%.

For more information on university policy on progression requirements please visit Academic Progression.

Internships and Placements

A minimum of 60 days of work experience is required, though individual streams may have additional requirements.
**Pathways**

**Post Graduate**

**Doctor of Philosophy - PhD**

**1010 Chemical Engineering**

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 144
Typical Duration: 3 to 4 Years

Read More

**Doctor of Philosophy - PhD**

**1016 Industrial Chemistry**

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 144
Typical Duration: 3 to 4 Years

Read More

**Doctor of Philosophy - PhD**

**1017 Petroleum Engineering**

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 144
Typical Duration: 3 to 4 Years

Read More

**Doctor of Philosophy - PhD**

**1031 Food Science and Technology**

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 144
Typical Duration: 3 to 4 Years

Read More

**Doctor of Philosophy - PhD**

**1050 Mining Engineering**
Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 144
Typical Duration: 3 to 4 Years

Read More
Doctor of Philosophy - PhD
1630 Civil & Environmental Eng

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 144
Typical Duration: 3 to 4 Years

Read More
Doctor of Philosophy - PhD
1640 Electrical Engineering

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 144
Typical Duration: 3 to 4 Years

Read More
Doctor of Philosophy - PhD
1650 Computer Science and Eng

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 144
Typical Duration: 3 to 4 Years

Read More
Doctor of Philosophy - PhD
1655 Photovoltaic Engineering

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 144
Typical Duration: 3 to 4 Years

Read More
Doctor of Philosophy - PhD
1662 Mechanical & Manufacturing Eng

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 144
Typical Duration: 3 to 4 Years

Read More
Graduate Diploma in Food Science - GradDipFoodSci
5037 Food Science

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 48
Typical Duration: 1 Years

Read More
Graduate Diploma in Mining Engineering - GradDipMinEng
5335 Mining Engineering

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 48
Typical Duration: 1 Years

Read More
Graduate Diploma in Engineering Science - GradDipEngSc
5341 Engineering Science

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 48
Typical Duration: 1 Years

Read More
Graduate Diploma - GradDip
5449 Engineering (Biomedical Engineering)

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 48
Typical Duration: 1 Years

Read More
Graduate Diploma - GradDip
5543 Information Technology

Faculty: Faculty of Engineering
Campus: Kensington
Read More

Graduate Certificate - GradCert
**7335 Mining Engineering**

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 24
Typical Duration: 0.7 Years

Read More

Graduate Certificate - GradCert
**7543 Computing**

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 24
Typical Duration: 0.7 Years

Read More

Master of Science - MSc
**8037 Food Science**

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 96
Typical Duration: 2 Years

Read More

Master of Mining Engineering - MMinEng
**8335 Mining Engineering**

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 72
Typical Duration: 1.7 Years

Read More

Master of Engineering Science - MEngSc
**8338 Engineering Science**

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 96
Typical Duration: 2 Years

Read More

Master of Information Technology - MIT

8543 Information Technology

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 96
Typical Duration: 2 Years

Read More

Master of Biomedical Engineering - MBiomedE

8660 Biomedical Engineering

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 72
Typical Duration: 1.7 Years

Read More
Professional Outcomes

Accreditations

Professional institutes that offer accreditation on completion of this program:

- Engineers Australia

The Faculty of Engineering is applying for provisional accreditation for Quantum Engineering with Engineers Australia.

Professional Recognition

Graduates are eligible to apply for membership of Engineers Australia. Further information may be found on engineersaustralia.org.au

Career Opportunities

From your second year, you can specialise in a particular field of engineering. Refer to the various engineering degrees for examples of career opportunities.
Recognition of Achievement

University Medal

The University Medal is awarded to recognise outstanding academic performance by a bachelor degree student in line with the University Medal Policy and University Medal Procedure.
Program Fees

At UNSW fees are generally charged at course level and therefore dependent upon individual enrolment and other factors such as student's residency status. For generic information on fees and additional expenses of UNSW programs, click on one of the following:

Domestic Students
Commonwealth Supported Students
International Students
Pre-2019 Handbook Editions

Access past handbook editions (2018 and prior)

Pre-2019 Handbook Editions
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Authorised by Deputy Vice-Chancellor (Academic)
CRICOS Provider Code 00098G
ABN: 57 195 873 179