Double Degree

Engineering (Honours) / Computer Science

3785 | 240 Units of Credit

Overview

Students may seek to undertake a five-year full-time dual degree program leading to the award of the degrees of Bachelor of Engineering (Honours) and Bachelor of Science (Computer Science) (BE (Hons) BSc). The Faculty of Engineering administers the program, and delegates administration to the School which offers the Engineering discipline selected. Students should seek advice from the relevant School Office in the first instance, from the Faculty of Engineering, or from the School of Computer Science and Engineering for the Science component.

With this dual degree program, students take the 168 units of credit core of the Bachelor of Engineering (Honours) 3707 and the 96 units of credit core of the Bachelor of Science (Computer Science) program 3778. Because of the overlap of 24 units of credit of Science courses in both core, the total units of credit required for completion is 240 UOC, rather than 264 UOC (please see Academic Rules below for more details).
<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>5 Years</td>
</tr>
<tr>
<td><strong>Intake Period</strong></td>
<td>Term 1, 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>240</td>
</tr>
<tr>
<td><strong>Award(s)</strong></td>
<td>Bachelor of Engineering (Honours) - BE (Hons) Bachelor of Science - BSc</td>
</tr>
<tr>
<td><strong>UAC Code</strong></td>
<td>425850</td>
</tr>
<tr>
<td><strong>CRICOS Code</strong></td>
<td>085916G</td>
</tr>
</tbody>
</table>
Learning Outcomes

3707 - Engineering (Honours)

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

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

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

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

5. Knowledge of engineering design practice and contextual factors impacting the engineering discipline.

6. Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline.

7. Application of established engineering methods to complex engineering problem solving.

8. Fluent application of engineering techniques, tools and resources.


10. Application of systematic approaches to the conduct and management of engineering projects.

11. Ethical conduct and professional accountability.
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.
Stand Alone Programs

Click on the link below to find out more about each individual program.

Program 3707  
Engineering (Honours)

Program 3778  
Computer Science
Double Degree Structure

Students must complete 240 UOC.

1. 168 UOC plus at least 60 days of approved Industrial Training experience
2. At least 48 UOC Disciplinary Knowledge and Enquiry-based Courses
3. 30-42UOC Introductory Knowledge core courses
4. At least 12 UOC of elective courses
5. The balance of stream to consist of Foundation Disciplinary Knowledge Courses
6. 96 UOC Computer Sciences courses

For the Eng (Hons)/BSc (Comp Sc) dual award program 3785, the following rules apply:

1. **BINFAH** and **COMPBH** and **SENGAH** are **not allowed** in this dual
2. Students **MUST** take COMP1511 as their first year Engineering computing course
3. COMP1521 is counted towards the BE as a first year elective
4. COMP4920 is waived in the BSc in favour of the management or ethics course in the BE
5. Students instead take 12 UOC General Education in place of COMP1521 and COMP4920

Majors

3707 - Engineering (Honours)

Students must complete at least one of the specialisations below.

HONOURS:

**AEROAH** | 168 UOC
Aerospace Engineering

**BINFAH** | 168 UOC
Bioinformatics Engineering

**CEICAH** | 168 UOC
<table>
<thead>
<tr>
<th>Department</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Engineering</td>
<td>168</td>
</tr>
<tr>
<td>Chemical Product Engineering</td>
<td></td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>168</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>168</td>
</tr>
<tr>
<td>Environmental Engineering</td>
<td>168</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>168</td>
</tr>
<tr>
<td>Surveying</td>
<td>168</td>
</tr>
<tr>
<td>Geospatial Engineering</td>
<td>168</td>
</tr>
<tr>
<td>Mechanical and Manufacturing Engineering</td>
<td>168</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>168</td>
</tr>
<tr>
<td>Mining Engineering</td>
<td>168</td>
</tr>
<tr>
<td>Mechatronic Engineering</td>
<td>168</td>
</tr>
<tr>
<td>Major</td>
<td>Units</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>PETRAH Petroleum Engineering</td>
<td>168</td>
</tr>
<tr>
<td>SENGAH Software Engineering</td>
<td>168</td>
</tr>
<tr>
<td>SOLAAH Photovoltaics and Solar Energy</td>
<td>168</td>
</tr>
<tr>
<td>SOLABH Renewable Energy Engineering</td>
<td>168</td>
</tr>
<tr>
<td>TELEAH Telecommunications</td>
<td>168</td>
</tr>
</tbody>
</table>

**Majors**

3778 - Computer Science

COMPA1 is the default stream, and will be used if no other stream is selected.

**MAJOR:**

<table>
<thead>
<tr>
<th>Major</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPA1</td>
<td>96</td>
<td>Computer Science</td>
</tr>
<tr>
<td>COMPD1</td>
<td>96</td>
<td>Computer Science (Database Systems)</td>
</tr>
<tr>
<td>COMPE1</td>
<td>96</td>
<td>Computer Science (eCommerce Systems)</td>
</tr>
<tr>
<td>COMPI1</td>
<td>96</td>
<td>Computer Science (Artificial Intelligence)</td>
</tr>
<tr>
<td>COMPJ1</td>
<td>96</td>
<td>Computer Science (Programming Languages)</td>
</tr>
</tbody>
</table>
**General Education**

3707 - Engineering (Honours)

Students must take 6 UOC of the following courses.

Note: Students completing the dual award Bachelor of Engineering (Honours)/Bachelor of Science in Computer Science complete 12 UOC of General Education courses in place of 12 UOC free electives from the Bachelor of Science in Computer Science.

any General Education course

**General Education**

3778 - Computer Science

Students must take at least 6 UOC of the following courses.

any General Education course

**Level 3 Maturity Requirements**

3707 - Engineering (Honours)

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

any level 3 course

**Level 4 Maturity Requirements**

3707 - Engineering (Honours)
Students must have completed 102 UOC before taking any of the following courses.

any level 4 course

**Maximum Level 1 Electives UOC**

3778 - Computer Science

Students may only undertake a maximum of 60 UOC of the following courses.

any level 1 course

**Industrial Experience Requirement**

3707 - Engineering (Honours)

Students must each complete at least 60 days approved industrial training concurrent with enrolment in the program.

**Excluded Majors**

3778 - Computer Science

Students enrolled in the dual award Bachelor of Engineering (Honours)/Bachelor of Science in Computer Science are not permitted to declare a Bioinformatics Engineering, Computer Engineering, or Software Engineering major in the Bachelor of Engineering (Honours).

**General Education**

3778 - Computer Science

Students completing the dual award Bachelor of Engineering (Honours)/Bachelor of Science in Computer Science complete 12 UOC of General Education courses in place of 12 UOC free electives from the Bachelor of Science in Computer Science.

Please read the Double Degree Program rules as some specific rules apply to particular Double Degree combinations.

**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.
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
Additional Information

Accreditation:

This Engineering component of this dual degree has the same accreditation status as the Bachelor of Engineering (Hons). For details please see Program 3707.
Pre-2019 Handbook Editions

Access past handbook editions (2018 and prior)

Pre-2019 Handbook Editions
© UNSW Sydney (CRICOS Provider No.: 00098G), 2019. The information contained in this Handbook is indicative only. While every effort is made to keep this information up-to-date, the University reserves the right to discontinue or vary arrangements, programs and courses at any time without notice and at its discretion. While the University will try to avoid or minimise any inconvenience, changes may also be made to programs, courses and staff after enrolment. The University may also set limits on the number of students in a course.

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