Overview

Bioinformatics Engineering is studied as a major stream in the BE (Hons).

This page outlines the core rules for the Bioinformatics Engineering stream when taken as part of a single or dual award. The requirements total 168 units of credit, plus 60 days of industrial training. Refer to the program page for full details on the overall program requirements.

Further details on the stream requirements, electives, and advice regarding the order and placement of courses in the stream can be found at: Bioinformatics
Faculty
Faculty of Engineering

School
School of Computer Science and Engineering

Study Level
Undergraduate

Minimum Units of Credit
168

Specialisation Type
Honours
Available in Program(s)

Program(s) in which this honours is available

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

**3707 Engineering (Honours)**

Faculty: Faculty of Engineering  
Campus: Kensington  
Units of Credit: 192  
Typical Duration: 4 Years

**Master of Biomedical Engineering - MBiomedE**

**3768 Engineering (Honours)/Biomedical Engineering**

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

Students must complete 168 UOC.

### Level 1 Core Courses

Students must take 60 UOC of the following courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BABS1201</td>
<td>6</td>
</tr>
<tr>
<td>COMP1511</td>
<td>6</td>
</tr>
<tr>
<td>COMP1521</td>
<td>6</td>
</tr>
<tr>
<td>COMP1531</td>
<td>6</td>
</tr>
<tr>
<td>ENGG1000</td>
<td>6</td>
</tr>
<tr>
<td>MATH1081</td>
<td>6</td>
</tr>
</tbody>
</table>

One of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM1011</td>
<td>6</td>
</tr>
<tr>
<td>CHEM1031</td>
<td>6</td>
</tr>
</tbody>
</table>

One of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>UOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS1111</td>
<td>6</td>
</tr>
</tbody>
</table>
PHYS1121 | 6 UOC  
Physics 1A  

PHYS1131 | 6 UOC  
Higher Physics 1A  

One of the following:  
MATH1131 | 6 UOC  
Mathematics 1A  

MATH1141 | 6 UOC  
Higher Mathematics 1A  

One of the following:  
MATH1231 | 6 UOC  
Mathematics 1B  

MATH1241 | 6 UOC  
Higher Mathematics 1B  

**Level 2 Core Courses**

Students must take 48 UOC of the following courses.  

BINF2010 | 6 UOC  
Introduction to Bioinformatics  

BIOC2201 | 6 UOC  
Principles of Molecular Biology (Advanced)  

COMP2041 | 6 UOC  
Software Construction: Techniques and Tools  

COMP2511 | 6 UOC  
Object-Oriented Design & Programming  

COMP2521 | 6 UOC  
Data Structures and Algorithms
DESN2000 | 6 UOC
Engineering Design and Professional Practice

One of the following:
MATH2801 | 6 UOC
Theory of Statistics

MATH2901 | 6 UOC
Higher Theory of Statistics

One of the following:
BABS2202 | 6 UOC
Molecular Cell Biology 1

BABS2204 | 6 UOC
Genetics

BABS2264 | 6 UOC
Genetics (Advanced Level)

BIOC2101 | 6 UOC
Principles of Biochemistry (Advanced)

MICR2011 | 6 UOC
Microbiology 1

**Level 3 Core Courses**

Students must take 24 UOC of the following courses.

BABS3121 | 6 UOC
Molecular Biology of Nucleic Acids

BINF3010 | 6 UOC
Applied Bioinformatics

COMP3121 | 6 UOC
Level 4 Core Courses

Students must take 24 UOC of the following courses.

BINF6112  |  6 UOC
Computational Biology Engineering Design Workshop

COMP4920  |  6 UOC
Management and Ethics

COMP4951  |  4 UOC
Research Thesis A

COMP4952  |  4 UOC
Research Thesis B

COMP4953  |  4 UOC
Research Thesis C

Discipline Electives

Students must take 12 UOC of the following:
Level 3 or higher COMP courses.
Level 3 BABS, BIOC or MICR courses
any level 3 Biotechnology & Biomolecular Sciences course
any level 3 Biochemistry course
any level 3 Computer Science course
any level 4 Computer Science course
any level 6 Computer Science course

any level 9 Computer Science course

**ENGG3060 | 3 UOC**
Maker Games

any level 3 Microbiology course

**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.
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