Overview

The Faculty of Science and the Faculty of Engineering offer a dual degree program leading to the award of the degrees Bachelor of Science (Advanced) and Bachelor of Science (Computer Science). The typical duration of this program is 5 years full-time.

The Bachelor of Advanced Science (Honours) is the degree of choice for innovative thinkers with exceptional scientific knowledge and skills. It's designed for talented students and offers the flexibility to tailor the degree in a way that works for them. The degree offers students access to advanced level courses and includes an Honours year.

The Bachelor of Science (Computer Science) focuses on the design and development of hardware and software tool by which computer applications may be developed. By combining your passion for science and the computer sciences you could further develop applications for use within the scientific world.
Faculty
Faculty of Science
Faculty of Engineering

Campus
Kensington

Study Level
Undergraduate

Typical duration
5 Years

Intake Period
Term 1, Term 3

Academic Calendar
3+ Calendar

Minimum Units of Credit
240

Award(s)
Bachelor of Advanced Science (Honours) - BAdvSci(Hons)
Bachelor of Science - BSc

UAC Code
429361

CRICOS Code
088867K
Learning Outcomes

3962 - Advanced Science (Honours)

1. Effective and appropriate communication in both professional (intra and inter disciplinary) and social (local and international) contexts.

2. Teamwork, collaborative and management skills including the ability to recognise opportunities and contribute positively to collaborative scientific research, and to demonstrate a capacity for self management, teamwork, leadership and decision making based on open-mindedness, objectivity and reasoned analysis in order to achieve common goals and further the learning of themselves and others.

3. Information literacy including the ability to make appropriate and effective use of information and information technology relevant to their discipline.

4. Appreciation and respect of the social, cultural and global context of science with an ability to communicate across cultures and to develop an international professional network.

5. Independently identify and formulate solutions to complex problems with intelligence, initiative and judgement in scholarship that demonstrates advanced knowledge and critical thinking of the underlying principles and concepts in one or more disciplines, and knowledge of research principles and methods.

6. Capability and motivation for intellectual development; including capacity for creativity, critical evaluation, entrepreneurship and demonstrating a commitment to their own learning, motivated by personal autonomy, accountability, curiosity and an appreciation of the value of learning.

7. Research, enquiry and high level analytical thinking abilities including the ability to construct new concepts or create new understanding through the process of enquiry, critical analysis and problem solving, including constructing a research project, that demonstrates technical skills in research and design.

8. Ethical, social and professional understanding including the ability to critically
reflect upon broad ethical principles and codes of conduct in order to behave consistently with a personal respect and commitment to ethical practice and social responsibility, multicultural, cultural and personal diversity.

Global Citizens  Professionals

**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 3962
Advanced Science (Honours)

Program 3778
Computer Science
Double Degree Structure

Students must complete 240 UOC.

1. An approved Bachelor of Advanced Science (Honours) major; and
2. SCIF1131;
3. 48 units of credit Honours Year; and
4. Science elective courses
5. 96 UOC of Computer Science courses

Majors

3962 - Advanced Science (Honours)

Students must complete at least one Science major selected from the list below.

When offered in a particular major, students must take higher versions of any Level 2 or 3 courses. Any variation to this must be approved by the Associate Dean (Academic Programs) or nominee.

MAJOR:

ANATA1    72 UOC
Anatomy

BINFB1    96 UOC
Bioinformatics

BIOCG1    90 UOC
Genetics

BIOCL1    84 UOC
Molecular and Cell Biology

BIOSG1    78 UOC
Ecology

BIOSJ1    78 UOC
Biology
<table>
<thead>
<tr>
<th>Course Code</th>
<th>UOC</th>
<th>Course Title</th>
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<tr>
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<td>84</td>
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</tr>
<tr>
<td>CHEMB1</td>
<td>78</td>
<td>Chemistry</td>
</tr>
<tr>
<td>CLIMB1</td>
<td>84</td>
<td>Climate Systems Science</td>
</tr>
<tr>
<td>CLIMC1</td>
<td>84</td>
<td>Climate Dynamics</td>
</tr>
<tr>
<td>GEOGG1</td>
<td>78</td>
<td>Geography</td>
</tr>
<tr>
<td>GEOLS1</td>
<td>78</td>
<td>Earth Science</td>
</tr>
<tr>
<td>MATHJ1</td>
<td>60</td>
<td>Mathematics</td>
</tr>
<tr>
<td>MATHK1</td>
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<td>Statistics</td>
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<tr>
<td>MATHO1</td>
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<td>Advanced Physical Oceanography</td>
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<tr>
<td>MATSB1</td>
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<td>Materials Science</td>
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<tr>
<td>MICRE1</td>
<td>84</td>
<td>Microbiology</td>
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<tr>
<td>MSCIM1</td>
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</table>
Marine and Coastal Science

NEURA1 | 84 UOC
Neuroscience

PATHB1 | 66 UOC
Pathology

PHARB1 | 66 UOC
Pharmacology

PHSLB1 | 66 UOC
Physiology

PHYSC1 | 90 UOC
Advanced Physics

PSYCA1 | 78 UOC
Psychology

VISNA1 | 84 UOC
Vision Science

Honours Specialisations

3962 - Advanced Science (Honours)

Students must complete at least one Science Honours stream selected from the list below.

HONOURS:

ARCYBH | 48 UOC
Palaeoscience

BABS BH | 48 UOC
Bioinformatics
<table>
<thead>
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<th>Subject</th>
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<tr>
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<td>Ecology</td>
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<td>Chemistry</td>
</tr>
<tr>
<td>CLIMDH</td>
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<td>Climate Science</td>
</tr>
<tr>
<td>GEOGTH</td>
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<td>Geography</td>
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<tr>
<td>MATHAH</td>
<td>48</td>
<td>Applied Mathematics</td>
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<td>MATHNH</td>
<td>48</td>
<td>Physical Oceanography</td>
</tr>
<tr>
<td>MATHPH</td>
<td>48</td>
<td>Pure Mathematics</td>
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</tbody>
</table>
VISNBH | 48 UOC
Vision Science

**Minors**

3962 - Advanced Science (Honours)

Students may choose to complete an optional minor in one of the following areas, using their Science and/or free electives

**MINOR:**

ANATB2 | 36 UOC
Anatomy

ARCYB2 | 36 UOC
Palaeosciences

BIOCD2 | 42 UOC
Molecular Biology

BIOSD2 | 42 UOC
Biology

CHEMD2 | 48 UOC
Chemistry

CLIMA2 | 42 UOC
Climate Science

GEOLF2 | 36 UOC
Geology

MATHC2 | 36 UOC
Mathematics
MATHD2 | 36 UOC
Statistics

MSCIH2 | 36 UOC
Marine Science

PATHB2 | 42 UOC
Pathology

PHARB2 | 48 UOC
Pharmacology

PHSLB2 | 48 UOC
Physiology

PHYSC2 | 48 UOC
Physics

PSYCM2 | 36 UOC
Psychology

VISNB2 | 36 UOC
Vision Science

**Majors**

3778 - Computer Science

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

**MAJOR:**

COMPA1 | 96 UOC
Computer Science

COMPD1 | 96 UOC
Computer Science (Database Systems)
COMPE1  |  96 UOC
Computer Science (eCommerce Systems)

COMPI1  |  96 UOC
Computer Science (Artificial Intelligence)

COMPS1  |  96 UOC
Computer Science (Programming Languages)

COMPN1  |  96 UOC
Computer Science (Computer Networks)

COMPS1  |  96 UOC
Computer Science (Embedded Systems)

COMPY1  |  96 UOC
Computer Science (Security Engineering)

Core Courses

3962 - Advanced Science (Honours)

Students must take 6 UOC of the following courses

Note: Students in the Vision Science major should take VISN1101 Seeing the World Perspectives from Vision Science instead. Students in Engineering Dual Programs should take ENGG1000 Introduction to Engineering Design and Innovation.

SCIF1131  |  6 UOC
Introductory Skills for Science

Level 2 Maturity Requirements

3962 - Advanced Science (Honours)

Students must have completed 30 UOC before taking any of the following courses.

any level 2 course
Level 3 Maturity Requirements

3962 - Advanced Science (Honours)

Students must have completed 72 UOC before taking any of the following courses.

any level 3 course

Maximum Level 1 UOC

3962 - Advanced Science (Honours)

A maximum of 72 UOC of Level 1 courses can be taken, including any General Education or mainstream Level 1 course taken to fulfil either the General Education or the Free Elective requirement.

any level 1 course

Minimum Level 1 Science UOC

3962 - Advanced Science (Honours)

Students must complete a minimum of 24 UOC of the following courses.

any level 1 Anatomy course

any level 1 Computer Science course

any level 1 Food Technology course

any level 1 course offered by Faculty of Science

any level 1 Neuroscience course

any level 1 Pathology course

any level 1 Pharmacology course

any level 1 Physiology course
any level 1 Medical Science course

**Minimum Science UOC**

3962 - Advanced Science (Honours)

Students must take 'science' courses so that the major plus SCIF1131, plus Honours year plus 'science' courses total 144 units of credit.

any Anatomy course

any Computer Science course

any Food Technology course

any course offered by Faculty of Science

any Neuroscience course

any Pathology course

any Pharmacology course

any Physiology course

any Medical Science course

**Minimum Level 3 Science UOC**

3962 - Advanced Science (Honours)

Students must complete a minimum of 30 UOC of the following courses.

any level 3 Anatomy course

any level 3 Computer Science course
any level 3 Food Technology course

any level 3 course offered by Faculty of Science

any level 3 Neuroscience course

any level 3 Pathology course

any level 3 Pharmacology course

any level 3 Physiology course

any level 3 Medical Science 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

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
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