Overview

This program combines the strengths of Actuarial Studies and Computer Science and allows high-performing students the opportunity to study a quantitative program with practical applications in computer science. This 4-year program will allow students to combine advanced studies in mathematics, economics, insurance, finance, statistics and programming.
Faculty
UNSW Business School
Faculty of Engineering

Campus
Kensington

Study Level
Undergraduate

Typical duration
4 Years

Intake Period
Term 1, Term 3

Academic Calendar
3+ Calendar

Minimum Units of Credit
192

Award(s)
Bachelor of Actuarial Studies - BActSt
Bachelor of Science - BSc

UAC Code
424350

CRICOS Code
0101083
Learning Outcomes

3586 - Actuarial Studies

1. Business knowledge: Students will make informed and effective selection and application of knowledge in a discipline or profession, in the contexts of local and global business.

2. Problem solving: Students will define and address business problems, and propose effective evidence-based solutions, through the application of rigorous analysis and critical thinking.

3. Business communication: Students will harness, manage and communicate business information effectively using multiple forms of communication across different channels.

4. Teamwork: Students will interact and collaborate effectively with others to achieve a common business purpose or fulfil a common business project, and reflect critically on the process and the outcomes.

5. Responsible business practice: Students will develop and be committed to responsible business thinking and approaches, which are underpinned by ethical professional practice and sustainability considerations.

6. Global and cultural competence: Students will be aware of business systems in the wider world and actively committed to recognise and respect the cultural norms, beliefs and values of others, and will apply this knowledge to interact, communicate and work effectively in diverse environments.

7. Leadership development: Students will develop the capacity to take initiative, encourage forward thinking and bring about innovation, while effectively influencing others to achieve desired results.

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 3586
Actuarial Studies

Program 3778
Computer Science
Double Degree Structure

Students must complete 192 UOC.

Alternative Actuarial Studies Majors

3586 - Actuarial Studies

Students may elect to complete either of the following majors as alternatives to the default Actuarial Studies major.

Students completing these alternative Actuarial Studies majors will still need to complete the program requirements such as Level 1 and 2 core course as well as Level 3 electives. Additionally, students cannot declare an additional Business major/minor as well.

These majors will require UOC to be taken from the Business School elective course requirement and an additional 12-18 UOC is to be completed on top of the 96 UOC for the Actuarial component to complete these majors. Please see the Progression Plans and consult the Business School Student Centre if you are interested in completing either of these majors.

MAJOR:

ACTLE1 | 48 UOC
Actuarial Risk Management and Analytics

MATHE1 | 66 UOC
Quantitative Data Science

Optional Second Major/Minor

3586 - Actuarial Studies

Students may use their Business electives to complete an optional major or minor. Students may choose a maximum of one major or minor listed below.

Please note: Completion of an additional major/minor within the combined Actuarial Studies degree may result in more UOC required for degree completion.

MAJOR:
<table>
<thead>
<tr>
<th>Course Code</th>
<th>UOC</th>
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<tbody>
<tr>
<td>ACCTA1</td>
<td>48</td>
</tr>
<tr>
<td>COMMF1</td>
<td>48</td>
</tr>
<tr>
<td>ECONF1</td>
<td>48</td>
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<tr>
<td>ECONI1</td>
<td>48</td>
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<tr>
<td>ECONJ1</td>
<td>60</td>
</tr>
<tr>
<td>FINSA1</td>
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<tr>
<td>IBUSA1</td>
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<td>MKRA1</td>
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<tr>
<td>MGMTA1</td>
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<td>MGMTH1</td>
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<td>TABLA1</td>
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<tr>
<th>Course Details</th>
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<tbody>
<tr>
<td>Accounting</td>
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<tr>
<td>Real Estate Studies</td>
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<tr>
<td>Business Economics</td>
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<tr>
<td>Business Strategy &amp; Econ Mngmt</td>
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<tr>
<td>Financial Economics</td>
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<tr>
<td>Finance</td>
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<tr>
<td>International Business</td>
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<tr>
<td>Information Systems</td>
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<tr>
<td>Marketing</td>
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**MINOR:**

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<td>TABLA2</td>
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<td>Business Law</td>
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</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>Code</th>
<th>UOC</th>
<th>Course Name</th>
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<td>COMPD1</td>
<td>96</td>
<td>Computer Science (Database Systems)</td>
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<td>COMPE1</td>
<td>96</td>
<td>Computer Science (eCommerce Systems)</td>
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<td>COMPI1</td>
<td>96</td>
<td>Computer Science (Artificial Intelligence)</td>
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<td>COMPJ1</td>
<td>96</td>
<td>Computer Science (Programming Languages)</td>
</tr>
<tr>
<td>COMPN1</td>
<td>96</td>
<td>Computer Science (Computer Networks)</td>
</tr>
<tr>
<td>COMPS1</td>
<td>96</td>
<td>Computer Science (Embedded Systems)</td>
</tr>
<tr>
<td>COMPY1</td>
<td>96</td>
<td>Computer Science (Security Engineering)</td>
</tr>
</tbody>
</table>

**Level 1 Core Courses**

3586 - Actuarial Studies

Students must take 54 UOC of the following courses.

Please note: For students completing Actuarial Studies/Computer Science, Actuarial Studies/Science or Actuarial Studies/Advanced Maths (Hons). MATH1151 & MATH1251 are compulsory core courses that count towards the other degree component. Therefore, students must complete and additional 12 UOC of UNSW Business School electives to satisfy the 96 UOC depth component.
Level 2 Core Courses

3586 - Actuarial Studies

Students must take 18 UOC of the following courses.

Students may replace ACTL2131 with the two courses MATH2901 Higher Theory of Statistics and MATH2931 Higher Linear Models. If students make this replacement, MATH2901 will count towards ACTL2131, and MATH2931 will be counted towards a major where this course is required or as a Business elective.
Please note: If you are studying Actuarial Studies/Science or Actuarial Studies/Advanced Maths (Hons), and wish to count MATH2901 and MATH2931 toward Science or Advance Maths (Hons) degree, you must complete more Business elective courses to achieve meet the minimum Business School Course requirement.

**ACTL2102 | 6 UOC**  
Foundations of Actuarial Models

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**ACTL2111 | 6 UOC**  
Financial Mathematics for Actuaries

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**ACTL2131 | 6 UOC**  
Probability and Mathematical Statistics

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**Level 3 Actuarial Electives**

3586 - Actuarial Studies

Students must complete 18 UOC of the following courses.

**ACTL3141 | 6 UOC**  
Actuarial Models and Statistics

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**ACTL3142 | 6 UOC**  
Actuarial Data and Analysis

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**ACTL3151 | 6 UOC**  
Life Contingencies

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**ACTL3162 | 6 UOC**  
General Insurance Techniques

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**ACTL3182 | 6 UOC**  
Asset-Liability and Derivative Models

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**ACTL3191 | 6 UOC**  
Superannuation and Retirement Benefits


**Business School Elective**

3586 - Actuarial Studies

Students must complete additional Business School electives to meet the 96 UOC of Business courses required for the Actuarial Studies component of the degree.

Please note: For students in Actuarial Studies/Law only 6 UOC of Business School electives are required. For students in Actuarial Studies/Computer Science, Actuarial Studies/Science or Actuarial Studies/Adv Math (Hons), 18 UOC of Business School electives are required.

*any course offered by UNSW Business School*

**Minimum Faculty UOC**

3586 - Actuarial Studies

Students must complete a minimum of 96 UOC of UNSW Business School courses.

*any course offered by UNSW Business School*

**Maximum Level 1 UOC**

3586 - Actuarial Studies

No more than 60 UOC of Level 1 Business courses will be counted towards the degree.

*any level 1 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*
Requirements for Double Degree Actuarial Studies/Law

3586 - Actuarial Studies

Law students are permitted to complete any TABL course offered in the Taxation major, with the exception of TABL1710 and TABL2741, as part of the Actuarial Studies component of their program but are NOT permitted to complete any other TABL course.

Mathematics Requirements for Double Degree

3586 - Actuarial Studies

1. MATH1151 Mathematics for Actuarial Studies and Finance 1A (6 UOC) replaces MATH1141 Higher Mathematics 1A (6 UOC)
2. MATH1251 Mathematics for Actuarial Studies and Finance 1B (6 UOC) replaces MATH1241 Higher Mathematics 1B
This applies to any stream that requires either of these courses.

3. If MATH1041 Statistics for Life and Social Sciences (6 UOC) is a requirement in a stream, it is replaced by one of the following three courses:
   - ACTL2131 Probability and Mathematical Statistics (6 UOC)
   - MATH2801 Theory of Statistics (6 UOC)
   - MATH2901 Higher Theory of Statistics (6 UOC)

Level 2 and 3 Maturity Requirements

3586 - Actuarial Studies

Students must have completed 24 UOC before taking any Level 2 courses.
Students must have completed 48 UOC before taking any Level 3 courses.

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