

# International Bachelor of Science

Coordinator: Associate Professor Paul Carr, Room 41.259, Phone 4221 3804

Students will gain a strong discipline-based training in an approved Science degree, integrated with a technological application of that science, an understanding of the social context of this science and technology, and an international perspective on the science and its applications. The flexible structure of the major, two minors, and electives allows students to design their study program to meet their particular interests and abilities.

International Bachelor of Science requirements are as follows:

- One major selected from disciplines located in the Faculty of Science. A major study consists of at least 60 credit points from one of the Faculty of Science disciplines: Biological Sciences, Chemistry, Human Geography, Physical Geography, Geology, Geosciences. Please refer to Section 7.1 for information regarding these majors.
- A Technology Minor consisting of 30 credit points as outlined in the five strands below and approved by the degree coordinator in consultation with the Engineering or Informatics Faculty Education Committee Chair.
- A Social Sciences Minor consisting of 24 credit points of approved subjects with an international emphasis selected in consultation with the Course Coordinator.
- A Global Science Study component consisting of SCIE102, a 6 credit point subject coordinated by the University of Wollongong, SCIE202, a 6 credit point remote-delivery subject at 200-level coordinated by the University of Colorado (Boulder), and SCIE402, an 12 credit point remote-delivery subject at 400-level coordinated by Dublin City University.
- A 24 credit point Honours Research Project.
- The balance of 24 credit points (to a degree total of 192) may be selected from either the Science Schedule or General Schedule and may include a selection of complementary or contrasting subjects, or other subjects with the approval of the Dean or Associate Dean. Some of these credit points may be required to complete pre-requisite subjects related to the Science major (e.g., the Maths requirement, or 100-level Chemistry and STAT252 for a Biological Sciences major).
- Students will be required to complete at least 24 credit points of the degree at one of the partner institutions (University of Colorado (Boulder) or Dublin City University). Students should complete the study abroad component in either their 2nd or 3rd year of study.

*Note: When selecting subjects for the Technology and Social Sciences minors, students must adhere to the requirement that no more than 60 credit points of 100-level subjects can count towards their degree programs.*

## International Bachelor of Science Course Structure cps      Session

### Suggested First Year

SCIE102	International Perspectives in Science	6	1
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Plus two 100-level subjects towards an approved Major.	12		
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<i>Plus additional subjects towards the Technology Minor, Social Sciences Minor and/or approved Major.</i>	30		
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### Suggested Second Year

SCIE202	Bioethical Challenges: A Global Perspective	6	1
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Plus four 200-level subjects towards an approved Major.	24		
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<i>Plus additional subjects towards the Technology Minor, Social Sciences Minor and/or approved Major.</i>	18		
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### Suggested Third Year

Three subjects towards an approved Major.	24		
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<i>Plus additional subjects towards the Technology Minor, Social Sciences Minor and/or approved Major.</i>	24		
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### Suggested Fourth Year

SCIE401	International Bachelor of Science Honours Project	24	Annual
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SCIE402	Research Frontiers in Science	12	Annual
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<i>Plus additional subjects towards the Technology Minor, Social Sciences Minor or approved Major.</i>	12		
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**Degree Total** **192**

**Engineering Technology Strand** **cps** **Session**

**100-Level**

ENGG152	Engineering Mechanics	6	2
ENGG153	Engineering Materials	6	1
ENGG154	Engineering Design and Innovation	6	2
NANO101	Current Perspectives in Nanotechnology	6	2

**200-Level**

MATE201	Structure and Properties of Materials	6	1
NANO201	Research Topics in Nanotechnology	6	2
MATE291	Engineering Computing and Laboratory Skills	6	1

**300-Level**

MATE302	Polymeric Materials	6	1
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**Informatics Strand** **cps** **Session**

**100-Level**

CSCI102	Systems	6	2
CSCI103	Algorithms and Problem Solving	6	1 or 2
CSCI114	Procedural Programming	6	1 or 2
CSCI124	Applied Programming	6	1 or 2

**200-Level**

CSCI235	Databases	6	2
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**300-Level**

CSCI315	Database Design and Implementation	6	1
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**Internet Technology Strand** **cps** **Session**

**100-Level**

ECTE181	WWW Engineering	6	1
ECTE182	Internet Technology 1	6	2

**200-Level**

ECTE281	Embedded Internet Systems	6	2
ECTE282	Internet Systems	6	1
ECTE283	Internet Technology 2	6	2

**Information and Communication Technology Strand** **cps** **Session**

**100-Level**

CSCI102	Systems	6	2
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**200-Level**

IACT201	Information Technology and Citizens' Rights	6	1
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IACT202	The Structure and Organisation of Telecommunications	6	*
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\* Not on offer in 2009

**300-Level**

IACT301	Information and Communication Security Issues	6	2
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IACT303	World Wide Networking	6	2
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<b>Mathematics Strand</b>		<b>cps</b>	<b>Session</b>
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**100-Level**

MATH187	Mathematics 1A Part 1	6	1
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MATH188	Mathematics 1A Part 2	6	2
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MATH111	Applied Mathematical Modelling 1	6	2
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**200-Level**

MATH201	Multivariate and Vector Calculus	6	1
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MATH202	Differential Equations 2	6	2
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STAT231	Probability and Random Variables	6	1
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**AWARD OF HONOURS FOR THE BSc (Hons) Int. DEGREE**

Honours is awarded on completion of the fourth year on academic performance assessed by calculating a weighted average mark for all 300 level and 400 level subjects. The weighting reflecting the level of the subject will be 1 for 300 level and 4 for 400 level subjects.

The approved ranges of marks for the award of Honours grades is:

Honours Class I	80 to 100%
Honours Class II, Division 1	72.5 to less than 80%
Honours Class II, Division 2	65 to less than 72.5%
Pass degree	50 to less than 65%

The regulations governing the award of Honours and the formula used for the calculation of the final grade is set out in the Course Rules in the University's Online Course Handbook: [www.uow.edu.au/handbook](http://www.uow.edu.au/handbook)