Health and Science Schools

Electronic Undergraduate Handbook 2015

University of Western Sydney

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Units, courses, and arrangements for courses as stated in the postgraduate and undergraduate electronic handbooks (and any other University of Western Sydney (UWS) publications or announcements) are an expression of intent only and are not to be taken as a firm offer or undertaking.

UWS reserves the right to discontinue or vary its units, courses and announcements at any time without notice.

Information contained in this electronic handbook is correct at the time of production (March 2015), unless otherwise noted.

CRICOS Provider Code 00917K

In accordance with the Education Services for Overseas Students (ESOS) Act 2000, the University of Western Sydney (UWS) is registered on the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS), Provider Code 00917K.

Overseas students studying in Australia must comply with the requirements of the ESOS Act and the National Code. They should consult the Federal Government's Australian International Education webpage for the description of the ESOS legislation and other relevant information. UWS International Postgraduate and Undergraduate Prospectuses and other promotional material specifically prepared for overseas students also provide information about CRICOS registered courses and conditions relating to study in Australia.

About the Health and Science Schools Electronic Undergraduate Handbook

Sessions and dates

There are two main sessions in 2015: Autumn and Spring. Weeks shown in the dateline refer to the session weeks for these main sessions.

The dateline is available at: http://www.uws.edu.au/currentstudents/current_students/dates/2015_academic_year_dateline.

Unit outlines

Brief outlines of all UWS undergraduate units listed in the course section are given in the second half of this electronic handbook.

The unit outlines give a brief overview of each unit. For some units this information is not available. Please check the UWS website for more recent information. For more information – details of textbooks, assessment methods, tutorial, group work and practical requirements – contact the unit coordinator.

More information on unit offerings can be found at: http://handbook.uws.edu.au/hbook/UNIT_SEARCH.ASP.

Unit not listed?

If the unit you are looking for is not in the alphabetical units section, consult your course coordinator for details or check the unit search web page for updated details on all units offered in 2015 at: http://handbook.uws.edu.au/hbook/UNIT_SEARCH.ASP.

Prerequisites, co-requisites and assumed knowledge

Students wishing to enrol in a unit for which they do not have the prerequisites or assumed knowledge are advised to discuss their proposed enrolment with an academic adviser.

Where it is necessary to limit the number of students who can enrol in a unit through shortage of space, equipment, library resources, and so on, or to meet safety requirements, preference will be given to students who have completed the unit recommended sequence in the course.

Academic credit

In most courses, academic credit will be granted for previous studies. For example, UWS has a number of agreements with TAFE to grant credit for successfully completed TAFE studies. Seek advice about credit prior to, or at enrolment.

Electives and cross-discipline study

Electives are available in many courses. These may be selected from pools of electives listed under various courses.

Also, UWS actively encourages students to take elective units in disciplines other than their major area of study. Students should seek advice from their course coordinator in the first instance.

How to use this electronic book

The first part of this electronic book contains information about current undergraduate courses offered by the Schools of Computing, Engineering & Mathematics, Medicine, Nursing and Midwifery, and Science & Health. The next part contains details of undergraduate unit sets in these courses, and the final part has details of all units within the courses.

The courses are arranged mainly alphabetically. If you know the course code, but not the name, consult the COURSE CODE INDEX.

The units are arranged alphabetically. If you know the code, but not the name, consult the UNIT CODE INDEX at the back of the electronic book.

Check website for updates

Every effort is taken to ensure that the information contained in this electronic book is correct at time of production. The latest information on course and unit offerings can be found at: http://handbook.uws.edu.au/hbook/

Contents

SCHOOL OF MEDICINE

Bachelor of Medicine, Bachelor of Surgery

4641.5

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This course prepares graduates for eligibility for registration as a medical practitioner in Australia or New Zealand. It is an integrated program in which the basic sciences and areas of knowledge underpinning medical practice are learnt in a framework that emphasises active learning, based on clinical and other relevant scenarios. Teaching of clinical skills begins in the first year and continues throughout the program. In the last three years of the course, students undertake clinical placements in a wide range of settings across Greater Western Sydney and beyond. Students who undertake the embedded Honours program during the final two years of the course will also carry out a research project.

Study Mode

Five years full-time. In the first two years of the course, students will study at the Campbelltown campus of the University. In the later years, students may be required to spend a period of time in one or more clinical rotations outside the Sydney metropolitan area, and will also be rotated to a substantial number of different locations within Sydney.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal

Advanced Standing

The course is extensively integrated horizontally, and as a result it will not be possible to grant credit for units taken in other courses.

Accreditation

The Bachelor of Medicine, Bachelor of Surgery (MBBS) program is fully accredited by the Australian Medical Council. Graduates will be eligible for registration as a medical practitioner by the Australian Health Practitioner Regulation Agency.

Inherent requirements

There are inherent requirements for this course that you must meet in order to complete your course and graduate. Make sure you read and understand the requirements for this course online.

Admission

Potential students should apply through the Universities Admission Centre (UAC) and directly to the School of Medicine. Selection is on the basis of:

- Academic merit (ATAR or its equivalent, for those without a completed degree; grade point average in their most recent degree, for graduate applicants)
- Results of the Undergraduate Medicine and Health Sciences Admission Test (UMAT); and
- Performance at an interview.

Evidence of connection to Greater Western Sydney may also be taken into account.

The requirements for International applicants (who must apply via the UWS International Office) to be considered for admission to the medical course are:

Achieve an academic rank of 95.5 or more (derived on submission of academic results) Meet English proficiency requirements.

- for those who have completed a 3 year or longer Bachelors degree, the grade point average in the degree must be at least 5.6 on the 7 point scale,
- For students commencing in 2015 - Achieve a scholastic performance in the final year of secondary school equivalent to a New South Wales ATAR of 95.50 (or 93.50 for applicants from Greater Western Sydney)(International Baccalaureate 37 or 36 for the Greater Western Sydney applicants) or higher.
- Have completed IELTS or equivalent examination (Academic Module) and achieve a minimum score of 7.0 in each of the four components, and an overall score of at least 7.0
- For more information on entry requirements and how to apply please see the School of Medicine web page.

For Honours Students:

Completion of Year 3 of UWS MBBS, with a grade-point average in the course to that time of 6.0 or better. Applications will be directly to the School, from currently enrolled students in Year 3 of MBBS.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Special Requirements

To be enrolled in this course students must comply with the current occupational screening and vaccination policy of NSW Health and meet NSW Clinconnect requirements at course commencement. Student details will be registered with the Australian Health Practitioner Regulation Agency ,

and must successfully complete a Work Cover Authority approved First Aid Certificate prior to the completion of the first semester of the course. Also see inherent requirements section above. Travel Requirements: The main hospitals outside of the Sydney Metropolitan Area are Lismore and Bathurst, although clinical training at other rural hospitals may be required. The School will consider special circumstances of students when allocating them to hospitals on rotation. However, the School reserves the right to allocate students to hospitals that are not their first preference to ensure that students receive the highest possible quality of teaching. Applicants for entry into UWS Medicine must take this into consideration and be willing to undertake their training in a range of hospital and health care facilities.

Course Structure

Qualification for the award requires the successful completion of 400 credit points including the units listed in the sequence below.

Full-time

Year 1

1H Session

400861.2 Foundations of Medicine 1

2H Session

400861.2 Foundations of Medicine 1

Year 2

1H Session

400862.2 Foundations of Medicine 2

2H Session

400862.2 Foundations of Medicine 2

Year 3

1H Session

400810.3 Integrated Clinical Rotations 1

2H Session

400810.3 Integrated Clinical Rotations 1

Year 4

1H Session

400811.2 Integrated Clinical Rotations 2

2H Session

400811.2 Integrated Clinical Rotations 2

Year 5 (Non-Honours stream)

1H Session

400977.2 Integrated Clinical Rotations 3

2H session

400978.2 Integrated Clinical Rotations 4

Year 5 (Honours stream)

Honours Coordinator: Professor Phillipa Hay e-mail: MBBSHons@uws.edu.au

Honours stream students will complete the following units:

1H Session

400977.2 Integrated Clinical Rotations 3

2H session

400978.2 Integrated Clinical Rotations 4
401172.1 Honours Project (Medicine)

Unsatisfactory Completion of Core Units

Students who are unable to satisfy the requirements of the core unit 400977 Integrated Clinical Rotations 3 will be expected to enrol and complete the unit 400979 - Integrated Clinical Rotations (General). Students should seek immediate academic advice regarding their planned progression and pattern of enrolment, which may have to be varied to meet unit and course requirements.

400979.1 Integrated Clinical Rotations (General)

Honours Stream

An Honours stream is offered - see the Honours in Bachelors Awards Policy and associated College Guidelines for the admission criteria.

Bachelor of Medicine, Bachelor of Surgery/Bachelor of Arts

4671.3

Students should follow the course structure for the course version relevant to the year they commenced. This course version applies to students who commenced study in this course in 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This combined program is offered to a small number of students (quota of three) who have demonstrated extremely high academic achievement during their Year 12 school studies, and who wish to broaden their medical studies by also completing the requirements for a Bachelor of Arts (BA). In addition to completing all components of the medical course, they will also complete 160 credit points of studies for the BA, one year of which will be taken off from the MBBS program to study 80 credit points of units for the BA full-time. Some students will choose to complete the program in seven years rather than six, in which case no overload would be needed. Students accepted into the combined program will need to consult with course advisors for both MBBS and BA to plan how to dovetail the

commitments needed for each component course. Students should refer to the separate handbook entries for the component degrees.

Study Mode

Six years full-time if 80 credit points of Bachelor of Arts units taken in overload. Seven years full-time if no overload.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal

Accreditation

The Bachelor of Medicine, Bachelor of Surgery course is accredited by the Australian Medical Council.

Admission

The admissions requirements and processes will be the same as for the MBBS (including the requirements to apply directly to the School of Medicine by the September closing date each year, to have a current UMAT score, and to have taken part in the Schools Multi-mini Interview (MMI), but with the following differences:

- The ATAR (or its equivalent) cutoff for consideration for entry to this combined degree is 99.85
- There will be a quota of three places for the combined degree in the first instance (it is important to set a quota, since the NSW hospitals and IMET do their planning for Intern places based on a steady pipeline of graduates emerging from the NSW medical courses; the quota could be adjusted slowly in future years if the level of demand supports it).
- Up to ten places will be set aside for the MMI for applicants with the MBBS/BA UAC course code (i.e. The same ratio of interview places to actual course places as for the straight MBBS). If there are more than 10 eligible applicants, they will be ranked by their UMAT score.
- The final ranked selection list, for the UAC admissions process, will be based solely on the interview performance.

For more information on entry requirements and how to apply please see the School of Medicine web page.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for the award requires the successful completion of 560 credit points including the units listed in the sequence below.

Students will take a year off from the MBBS program (ideally between Years 2 and 3 or between Years 3 and 4) to study BA full-time. Some students will prefer to take a second full-time year off to complete the 160 credit points of Arts units required for the BA, while others will request and be approved to carry a small overload (average of 10 credit points per semester) in Years 1-4 of MBBS to complete 80 credit points of Arts units.

A typical structure is set out below, but the overload (or decision to NOT overload) and the particular year in which a student would intercalate from the MBBS program can be tailored to individual students' needs.

Recommended Sequence

Full-time

Year 1

1H session

400861.2 Foundations of Medicine 1

and one 10 credit point Bachelor of Arts unit

2H Session

400861.2 Foundations of Medicine 1

and one 10 credit point Bachelor of Arts unit

Year 2

1H Session

400862.2 Foundations of Medicine 2

and one 10 credit point Bachelor of Arts core unit

2H Session

400862.2 Foundations of Medicine 2

and one 10 credit point Bachelor of Arts core unit

Year 3

400810.3 Integrated Clinical Rotations 1

and 20 credit points of Bachelor of Arts core units - 10 credit points per semester

Year 4

80 credit points of full-time Bachelor of Arts units

Year 5

400811.2 Integrated Clinical Rotations 2

and 20 credit points of Bachelor of Arts units - 10 credit points per semester

Year 6

400977.2 Integrated Clinical Rotations 3
400978.2 Integrated Clinical Rotations 4

(Bachelor of Arts requirements complete)

Bachelor of Arts Majors

Note: Not all majors are available on all campuses.

Note: Some majors and sub-majors have inherent requirements. Please see the link below:

M1059.1	Arabic
M1060.1	Chinese
M1052.1	Cultural and Social Analysis
M1053.1	English
M1054.1	History and Political Thought
M1041.1	Indigenous Australian Studies
M1093.1	Indonesian
M1055.1	International Relations and Asian Studies
M1056.1	Islamic Studies
M1062.1	Japanese
M1057.1	Linguistics
M1058.1	Philosophy
M1050.1	Psychological Studies

Bachelor of Arts Submajors

Note: Not all Arts sub-majors are available on all campuses.

SM1077.1	Arabic
SM1078.1	Chinese
SM1070.1	Cultural and Social Analysis
SM1071.1	English
SM1072.1	History and Political Thought
SM1051.1	Indigenous Australian Creative Expressions
SM1049.1	Indigenous Australian Studies
SM1050.1	Indigenous Economics
SM1112.1	Indonesian
SM1073.1	International Relations and Asian Studies
SM1074.1	Islamic Studies
SM1080.1	Japanese
SM1075.1	Linguistics
SM1076.1	Philosophy
SM1069.1	Psychological Studies

Bachelor of Medical Research

4647.3

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencment year in this course is 2012 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This course gives students who are enrolled in the UWS Bachelor of Medicine/Bachelor of Surgery (MBBS) the opportunity to take leave of absence from the normal medical course for 12 months full time or 24 months part time, after successfully completing Years 1 and 2 of MBBS, in order to gain a more detailed experience in medical research than is provided in the normal medical course. Years 1 and 2 of the Bachelor of Medical Research are identical to Years 1 and 2 of MBBS. It is expected that students will return to the medical course on completion of the intercalated year, which will complete the requirements for the Bachelor of Medical Research, but the degree is also available as an exit point for those who do not wish to resume MBBS.

Study Mode

Three years full-time or six years part-time

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Campbelltown Campus	Part Time	Internal

Accreditation

The Australian Medical Council accredits the Bachelor of Medicine, Bachelor of Surgery (MBBS) program, and the addition of an extra year of research, as proposed here, meets one of their standards concerning provision of opportunities for research during medical courses.

Admission

Must be currently enrolled in Bachelor of Medicine/Bachelor of Surgery (MB BS) at UWS, and have successfully completed at least two years of that course, normally with a credit average, before being admitted to Year 3 of the intercalated Bachelor of Medical Research.

Course Structure

Qualification for this award requires the successful completion of 240 credit points, which include:

A common 160 credit point core, comprising the first two years of the Bachelor of Medicine / Bachelor of Surgery (MBBS) program

An 80 credit point intercalated program, specific to the new degree (Bachelor of Medical Research), which can be taken following the 2nd, 3rd or 4th year of the MBBS program, comprised of

A compulsory 60 credit point new unit, 400813 - Medical Research Project, and a choice of one of two existing course work combinations, totalling 20 credit points over two semesters, as shown below

Year 1

1H session (year long subjects)

400861.2 Foundations of Medicine 1

2H session

400861.2 Foundations of Medicine 1

Year 2

1H session (year long subjects)

400862.2 Foundations of Medicine 2

2H session

400862.2 Foundations of Medicine 2

Year 3

1H session

400813.2 Medical Research Project

Autumn session

Choose one of

300768.2	Methods of Scientific Researching
400864.3	Research Methods (Quantitative and Qualitative)

2H session

400813.2	Medical Research Project

Spring session

Choose one of

300768.2	Methods of Scientific Researching
400863.2	Foundations of Research and Evidence-Based Practice

Note: This program is available only to students who are selected into the UWS Bachelor of Medicine (MBBS) and Bachelor of Surgery; Years 1 and 2 of the Bachlelor of Medical Research are identical to Years 1 and 2 of the MBBS program.

Note: Students may apply for leave of absence from MBBS (for one year full-time or two years part-time) and admission to the B Med Res once they have completed Years 1 and 2 of MBBS, and will normally be required to have a credit average in MBBS at the time they apply.

Note: Year 3 of the Bachelor of Medical Research will most commonly be undertaken between Years 2 and 3 or between Years 3 and 4 of the MBBS. It will not normally be possible to enrol for the Bachelor of Medical Research once Year 5 of MBBS has been completed, because of the need for current clinical skills as the graduates progress into the following Intern year.

Specialisations

Major - Indigenous Australian Studies

M1041.1

What does it mean to live in Indigenous Australia? The Indigenous Australian Studies Major offers students the exciting opportunity to acquire key cultural competencies that will enable them to understand and work more effectively with Indigenous Australians in professions such as the arts, communications, media industries; education; government and non-government; policy; health; sciences; and community services. The Indigenous Australian Studies Major addresses the cultural, historical, social and economic issues affecting Indigenous and Non-Indigenous Australians and relationships.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students must complete 80 credit points as follows

Students must complete the following Level one unit

101751.2 Contextualising Indigenous Australia (Day Mode)

Choose seven of the following units including three Level 3 units

Level 1 units

101878.1 Indigenous Landscapes
101762.1 Who do you think you are? (Day Mode)

Level 2 units

101754.2 From Corroborees to Curtain Raisers (Day Mode)
101755.1 From Ochre to Acrylics to New Technologies
101752.1 Pigments of the Imagination
101753.2 Revaluing Indigenous Economics (Day Mode)

Level 3 units

101756.1 Bridging the Gap: Re-engaging Indigenous Learners
101757.1 The Making of the `Aborigines'

Choose one of

101758.1 Learning through Indigenous Australian Community Service (Day Mode)
101759.1 Rethinking Research with Indigenous Australians: Independent Study Project (Day Mode)

Major - Psychological Studies

M1050.1

The Psychological Studies major comprises units in the discipline of psychology that focus on the field of inquiry that uses scientific techniques and methods to understand and explain behaviour and experience. Units in the program are drawn from the following core areas of psychology: brain and behaviour, learning, motivation and emotion, social psychology, lifespan development, perception, and cognitive processes. A Psychological Studies major does not meet APAC requirements for an accredited sequence in Psychology. Students wishing to to enrol in an accredited Psychology sequence should complete the Psychology key program of 200 credit points.

Location

Campus	Mode
Bankstown Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students must complete the following eight units

101684.3 Brain and Behaviour
101677.3 Cognitive Processes
101682.4 Developmental Psychology
100013.3 Experimental Design and Analysis
101676.2 Human Learning
101680.3 Perception
101184.2 Psychology: Human Behaviour
101183.2 Psychology: Behavioural Science

Major - Cultural and Social Analysis

M1052.1

Cultural and Social Analysis is an interdisciplinary major developing knowledge, research skills and analytic capacities relevant to understanding and interpreting landscapes of cultural diversity and social difference in our contemporary world, both in terms of the broad contours, as well as specific micro-social environments. This major provides grounding in contemporary debates and methodologies in cultural studies and social theory, and draws on various disciplines including history, sociology, communications, and linguistics. Topics include popular culture, everyday urban life, cultural and social impacts of scientific theories and new technologies, multiculturalism, and contemporary spirituality. Study in this area is relevant for work involving commentary and analysis of contemporary social issues and cultural practices (e.g. journalism, teaching, activism) and fields concerned with designing, delivering and evaluating cultural and artistic

productions, and education, communication, welfare or health services, in culturally diverse communities.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students must complete the following units

100897.2 Everyday Life
101979.1 Understanding Visual Culture
101906.2 Researching Culture
101980.2 Culture, Society and Globalisation

Plus four units from the following pools with no fewer than two Level 3 units in order to complete the major.

Note: Not all units will be offered each year. Units will be offered on a rotational basis.

Level 2 Unit Pool

102192.1 Cinema and Censorship
101967.1 Cultural History of Books and Reading
101250.3 Digital Futures
100964.3 Introduction to Film Studies
100882.3 Politics of Sex and Gender
101917.1 Representing Everyday Life in Literary and Visual Cultures
101990.1 The Racial State
101989.1 Thinking Cinema
100291.5 Urban Life/Urban Culture
100298.3 Youth Cultures and Moral Panics

Level 3 Unit Pool - Choose at least two

101981.1 Activism, Engagement and Social Change
101265.3 Children's Culture
101626.5 Children's Literature: Image and Text
101870.1 Climate Change and Culture
101984.1 Cinema and Experience
102185.1 Culture, Discourse and Meaning
100996.3 Death and Culture
100860.3 Emotions, Culture and Community
100866.3 Film and Drama
101716.3 Healing and Culture
101991.1 History of Sexuality
101988.1 Human Rights and Culture
100961.4 Humanities Internship
101468.2 Islam, Media and Conflict
101985.1 Politics, Power and Resistance
101987.1 Postcolonial Australian Cinema
101253.3 Public Memory and Commemoration
102191.1 Queer Culture
101003.2 Religion and Culture
101005.4 Representing Crime
101738.2 The Art Game: Fraud, Forgery, Theft and Perfidy
101009.3 The Body in Culture
101848.1 Transnationalism and Migration
101731.3 Understanding Power
101898.1 Violence in Everyday Life
101010.3 What is the Human?

Please note:

The Level 2 and level 3 units listed below count towards completion of the major for students who passed any of these units in 2015 or earlier.

101295.2 Aesthetics
101408.2 Critical Discourse Analysis
101844.2 Feminist Theories
10371.3 The Art Museum - from the Prince to the Public
101879.2 Women with Muslim Identity

Major - English

M1053.1

The English major invites students to explore contemporary approaches to language, literary study and writing, including literary criticism and theory, linguistic analysis, genre and textual study, and creative writing. The English major focuses on the imaginative workings of language, and students can study a wide selection of modern and classic literature, as well as the relationships between written texts and other media such as film and information technology. Students also have the opportunity to produce their own creative writing and to edit and publish their work. Career prospects include publishing, editing, teaching, writing and advertising.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students would be eligible for this major having successfully completed 80 credit points with no less than three Level 3 units.

Students must complete the following compulsory units

101907.1 Introduction to Literary Studies
100641.3 Approaches to Text
101909.1 Methods of Reading
101976.2 English Literature After 1830

Note: Not all units will be offered each year. Units will be offered on a rotational basis.

Level 1 Unit Pool

102080.1 Academic Writing

Level 2 Unit Pool

100900.4 Comedy and Tragedy
101967.1 Cultural History of Books and Reading
101986.1 International Texts and Contexts
100964.3 Introduction to Film Studies
101978.1 Modern Australian Poetry and Poetics

101917.1 Representing Everyday Life in Literary and Visual Cultures
101964.1 Sexual/Textual Politics in Victorian Women's Writing
101869.1 Studies in Postcolonial Literature
101795.3 The Musical
100896.3 Writing Fiction

Level 3 Unit Pool

100849.4 Australian Textual Studies
102205.1 Children's and Young Adult Fiction
101626.5 Children's Literature: Image and Text
101984.1 Cinema and Experience
100856.4 Creative Non-Fiction
100859.3 Creative Writing Project
102315.1 Crime Fiction
102185.1 Culture, Discourse and Meaning
100866.3 Film and Drama
100961.4 Humanities Internship
102186.1 Introduction to Stylistics
100875.4 Literature and Philosophy
101739.3 Literature and Trauma
101966.1 Literatures of Decolonisation
101033.4 Modernism
101650.3 Race in Literature
102078.1 Reading Ireland in the 1990s: Fiction, Poetry, Drama
101005.4 Representing Crime
101791.2 Short Fiction in the Americas
101832.2 Talking Normal: Sociolinguistics and Modern Literature
100893.4 The Novel
101880.1 The Space of Literature
101977.1 Women, Travel and Empire
101669.2 World Literature in Translation
101908.1 Writing and Reading Sci Fi and Fantasy
101670.3 Writing and Society
100895.4 Writing For Performance
101011.3 Writing Poetry
100582.2 Writing Portfolio
101796.1 19th Century American Literature
102099.1 20th Century American Literature

Please note:

The Level 2 and level 3 units listed below count towards completion of the major for students who passed any of these units in 2015 or earlier.

101242.3 Children's Literature
101408.2 Critical Discourse Analysis
101724.2 Literary Animals
101406.2 Queering Text

Major - History and Political Thought

M1054.1

Since the revival of humanist thought in the Renaissance, universities have placed studies in history and political thought at the centre of exploring what it is to be human. At the heart of the History and Political Thought major are four compulsory units which introduce the student to the modern (since 1500) history of humanity. Although Europe is very prominent in the Major, the student will be invited to compare its history to the histories of Asia, Africa and the Americas. The Major culminates in a capstone unit in students' final semester discussing historical theories and methods. This will also provide an introduction to the Honours program for students who wish to pursue further studies and research. A wide range of elective units covers European, American, Australian and Asian history and political thought and includes thematic units which range widely over time and place.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

To be eligible for this major students are required to successfully complete 80 credit points from the units listed below with no less than three Level 3 units.

Students must complete the following compulsory units

101910.1 Global History
102000.1 Modern European History and Politics
101992.1 Religion and the Emergence of Modern Politics
102001.1 Theories and Methods of History

Note: Not all pool units will be offered each year. Units will be offered on a rotational basis.

Level 2 Unit Pool

101882.1 A History of Modern Global Buddhism
100244.2 Ancient Western Culture: Periclean Athens
101973.1 Australian Politics
101967.1 Cultural History of Books and Reading
100861.3 Empire: European Colonial Rule and its Subjects, 1750-1920
100001.3 Keeping the Past
101797.2 Political Terror
100882.3 Politics of Sex and Gender
102002.1 Religion and the Origins of Modern Science
101871.2 War
101912.1 Western Political Philosophy

Level 3 Unit Pool

100985.2 American Foreign Policy Since 1945
100966.3 American History, 1898-1945
102004.1 Australian Colonial History
101872.1 Australian Indigenous History from Federation to Reconciliation
101919.1 Australian Indigenous History: From first contact to 'dying race'
102003.1 Comparative Nationalism
101799.2 Convicts and Settlers - Australian History 1788 - 1840
100903.2 Democracy in Asia
102188.1 Dictators, Democrats and Dreamers: Indonesia 1942 to now
101974.1 Enlightenment and Revolution
102007.1 Ethics in Historical Perspective

100254.3	Exploring Local History
101735.2	Global Politics
102006.2	Histories of Crime and Punishment
101991.1	History of Sexuality
100507.4	History of Modern China to 1949
102184.1	History of Muslim Civilisations and Ideas
100961.4	Humanities Internship
101988.1	Human Rights and Culture
101733.2	Looking at Global Politics Through Film
100271.3	Modern Japanese History
100278.2	Politics of Post-War Japan
101985.1	Politics, Power and Resistance
63178.2	Social and Political Developments in Contemporary China
102187.1	Sultans, Colonists and Nationalists: Indonesia C1200-1942
101782.2	The History and Politics of Contemporary Central Asia
101783.2	The International Relations of the Middle East Since 1945
102005.1	The Politics of Civilisation
101913.1	Theories of Authority
100969.2	Theories of Conflict and Violence
101999.1	Twentieth Century Australia
101798.2	Understanding Freedom
101866.1	United States Government and Politics
101993.1	War and Society in the Twentieth Century
102142.1	Warlords, Artists and Emperors: Power and Authority in Japanese History
101830.2	WWII in Asia and the Pacific

Please note:

The Level 2 and level 3 units listed below count towards completion of the major for students who passed any of these units in 2015 or earlier.

102079.1	Britain in the Age of Botany Bay, 1760-1815
101972.1	The History of Modern Indonesia

Major - International Relations and Asian Studies

M1055.1

This major has been designed to meet the needs of Australian government, business and society to engage the states and peoples of Asia at all levels in pursuit of national interests and as part of the globalisation process. It provides students with the opportunity to study contemporary Asia, as well as the rich and diverse histories, politics, cultures and languages of Asian countries and the international issues affecting Australia's interests and role in the region and in the world at large. The major area also includes a range of units concerned with the United States and Europe as well as with Asia itself, and units in international relations covering other parts of the world. It seeks to produce graduates with a broad, liberal education with the skills to mediate between Australia and the world in general and Asia in particular through political, economic, commercial, cultural, diplomatic and strategic links. Students are encouraged to undertake a sub-major in an Asian language in conjunction with the major. Employment opportunities may be found in the State and Commonwealth public service, overseas organisations, the media, business and industry, education and research.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

Students must complete the following compulsory units

101442.2	Asia in the World
101956.1	Introduction to International Relations
100277.4	Politics of Australia and Asia Relations
101957.1	The Asian Century

And four units from the following pools, with no less than three Level 3 units in order to pass the major.

Note: Not all units will be offered each year. Units will be offered on a rotational basis.

Level 2 Unit Pool

101882.1	A History of Modern Global Buddhism
101968.1	Civil Society in Contemporary China
100861.3	Empire: European Colonial Rule and its Subjects, 1750-1920
101797.2	Political Terror
101871.2	War

Level 3 Unit Pool

100985.2	American Foreign Policy Since 1945
100903.2	Democracy in Asia
102188.1	Dictators, Democrats and Dreamers: Indonesia 1942 to now
101735.2	Global Politics
100507.4	History of Modern China to 1949
100961.4	Humanities Internship
102189.1	International Organisations and Global Governance
102190.1	International Relations of Southeast Asia
102193.1	International Special Study
101467.2	Islam in Southeast Asia
101733.2	Looking at Global Politics Through Film
100271.3	Modern Japanese History
100278.2	Politics of Post-War Japan
63178.2	Social and Political Developments in Contemporary China
102187.1	Sultans, Colonists and Nationalists: Indonesia C1200-1942
101783.2	The International Relations of the Middle East Since 1945
102005.1	The Politics of Civilisation
101866.1	United States Government and Politics
102142.1	Warlords, Artists and Emperors: Power and Authority in Japanese History
101830.2	WWII in Asia and the Pacific

Please note:

The Level 2 and level 3 units listed below count towards completion of the major for students who passed any of these units in 2015 or earlier.

101972.1	The History of Modern Indonesia

101963.1 Understanding Global Insecurity

Major - Islamic Studies

M1056.1

Students engage in interdisciplinary study essential to an understanding of Islam, past and present. The area of study balances historical and modern Islamic studies and research methods. One of the keys to Islamic Studies is 'relevance' to contemporary Australian society but relevance can only come from a sound comprehension of past traditions in Islamic scholarship and their socio-historical contexts. Preparation for graduate study is also a key objective of this program, with its focus on developing critical and interdisciplinary research skills through a combination of approaches. Students are encouraged to undertake a sub-major in Arabic to complement the Islamic Studies major.

Location

Campus	Mode
Bankstown Campus	Internal

Specialisation Structure

Students can complete a major in Islamic Studies having successfully completed 80 credit points which includes the units in the following recommended sequence.

An Islamic Studies major must include the following four units:

102296.1 Hadith: The Prophetic Tradition
101465.2 Islamic Law in a Changing World
101911.2 The Qur'an: An Introduction
101462.2 Understanding Islam and Muslim Societies

The remaining four units must include at least three Level 3 units drawn from the following pool.

Please Note: Not all units will be offered each year. Units will be offered on a rotational basis.

Level 2 Unit Pool

102294.1 Islam in the Modern World
101879.1 Women with Muslim Identity

Level 3 Unit Pool - choose at least three

101466.2 Ethical Traditions in Islam
102184.1 History of Muslim Civilisations and Ideas
101822.3 Islam in the West
101467.2 Islam in Southeast Asia
101468.2 Islam, Media and Conflict

102297 Islamic Revivalism in the Globalised World

Please note:

The Level 2 and level 3 units listed below count towards completion of the major for students who passed any of these units in 2015 or earlier.

101463.4 Islam in the Modern World

Major - Linguistics

M1057.1

Language is fundamental to the human experience. Through study of how language works, students make contact with fundamental philosophical, socio-cultural, and psychological questions about what it means to be human. Linguistics prepares students with a foundation for many careers including primary and secondary teaching, policy analysis, communication, and social services in culturally diverse communities. Linguistics students also gain the analytical tools of empirical science including the ability to break complex problems into components with tractable solutions and to evaluate theories on the basis of empirical facts. These skills prepare students for success in post-graduate studies and careers in research, analytics, business and law.

Location

Campus	Mode
Bankstown Campus	Internal

Specialisation Structure

Students must complete the following compulsory units

101945.2 Introduction to Linguistics
102042.1 The Sound of Language
101948.2 Structure of Language
101947.1 Pragmatics
101449.2 Bilingualism and Biculturalism
101451.2 Second Language Acquisition

And students must complete two of the following pool units

Level 3 Unit Pool

101946.1 Discourse Analysis
102043.1 Historical Linguistics
101950.1 Intercultural Communication
100023.5 Psychology of Language
102044.1 Research Methods in Linguistics
101450.2 Sociolinguistics

Major - Philosophy

M1058.1

Philosophy has always asked the "big questions" about our lives. These are questions, for example, about the limits of our knowledge, the best way that humans can live together, how we understand the world around us, and what is the good life. A philosophy major at UWS will enable students to develop particular skills and attributes - such as clear thinking, capacities to assess arguments and values, sound understanding of important philosophical views - that have always been essential to university scholarship, and which continue to be valuable for graduates in both public and private life.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

Students must complete the following compulsory units

101918.1 Introduction to Philosophy
101915.1 Ethics and Philosophy
101914.1 Case Studies in Philosophy: Thinker
101916.1 Case Studies in Philosophy: Text

Plus four units from the following pools with no fewer than two Level 3 units in order to complete the major.

Note: Not all units will be offered each year. Units will be offered on a rotational basis.

Level 2 Pool Units

100244.2 Ancient Western Culture: Periclean Athens
100852.2 Classics of Modern Philosophy
101843.2 Philosophy and Environment
101881.2 Philosophy and the Good Life
101965.1 Philosophy of Religion
101867.2 The Ethical Life
101989.1 Thinking Cinema
101983.1 Truth and Knowledge
101912.1 Western Political Philosophy

Level 3 Pool Units - Choose at least two

101295.2 Aesthetics
102007.1 Ethics in Historical Perspective
101844.2 Feminist Theories
100961.4 Humanities Internship
100875.4 Literature and Philosophy
100275.4 Philosophies of Love and Death
100969.2 Theories of Conflict and Violence
101913.1 Theories of Authority
101798.2 Understanding Freedom
101731.3 Understanding Power
101010.3 What is the Human?

Major - Arabic

M1059.1

Language specialisations aim to enable students to develop an appropriate level of proficiency in a second language, which may be used for professional purposes such as teaching, interpreting and translation, business or international relations. Students undertaking a language specialisation will be able to use the language in question according to its grammatical and pragmatic principles, communicate with native speakers appropriately in the spoken as well as the written mode, and demonstrate an understanding of the cultures and societies associated with the language.

Location

Campus	Mode
Bankstown Campus	Internal

Specialisation Structure

There are three entry levels into language majors. Beginner's level is for those with no previous study or minimal study of the language. Intermediate level is typically for students who: are non-native speakers with study of the language to HSC 2 Unit level or have a home background in the language but no comprehensive formal study, or who speak a non-standard variety (e.g. dialect). Post-Intermediate level is typically for students who are non-native speakers with substantial formal study and near-native competence; or are literate native speakers of a standard variety. Students should consult with the Languages staff regarding the progression sequence that best fits their level of skill. During the first two weeks of class, the lecturer will monitor the performance of students and advise students who need to transfer to a higher or lower class. Students may consult with the Languages Academic Course Advisor, if they are unsure of their entry level. Students should avoid enrolling in units at different levels at the one time (e.g. you should not enrol in Arabic 201 and 301 at the same time). Please check the current timetable as some units may not be offered every year. Advanced (Level 3) units may be offered on a rotational basis.

A major in Arabic comprises a sequence of 80 credit points with 60 credit points at Level 2 and 3 (with no less than 30 credit points of these at Level 3), however students commencing at beginner's level, that is units 101 and 102, and who follow the recommended course structure, are only required to complete 20 credit points at Level 3.

Students should take units that reflect their level of competence in the language and they should not backtrack, i.e. they must not:

- take a Level 1 unit after passing a Level 2 unit in the same language; or

- take a Level 2 unit after passing a Level 3 unit in the same language.

Level 1 units

100041.2 Arabic 101
100042.2 Arabic 102

Level 2 units

102019.1 Arabic 201
102020.1 Arabic 202
102021.1 Arabic 203
102022.1 Arabic 204

Level 3 units

101949.1 Arabic 301
100048.2 Arabic 302 - Arabic Advanced Language and Grammar
100049.2 Arabic 303: Advanced Writing Skills
100050.2 Arabic 304: Arabic Advanced Speaking
100052.2 Arabic 306: Arabic Novel and Short Story
100054.2 Arabic 308:Language Past and Present
101950.1 Intercultural Communication

100201.2 Special Study in Languages and Linguistics

Major - Chinese

M1060.1

Language majors aim to enable students to develop an appropriate level of proficiency in a second language which may be used for professional purposes such as teaching, interpreting and translation, business or international relations. Students undertaking a language major will be able to use the language in question according to its grammatical and pragmatic principles, communicate with native speakers appropriately in the spoken as well as the written mode, and demonstrate an understanding of the cultures and societies associated with the language.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

There are Inherent Requirements for this major, please see link below:

There are three entry levels into language majors. Beginner's level is for those with no previous study or minimal study of the language. Intermediate level is typically for students who: are non-native speakers with study of the language to HSC 2 Unit level or have a home background in the language but no comprehensive formal study, or who speak a non-standard variety (eg dialect). Post-Intermediate level is typically for students who are non-native speakers with substantial formal study and near-native competence; or are literate native speakers of a standard variety. Students should consult with the Languages staff regarding the progression sequence that best fits their level of skill. During the first two weeks of class, the lecturer will monitor the performance of students and advise students who need to transfer to a higher or lower class. Students may consult with the Languages Course Advisor, if they are unsure of their entry level. Students should avoid enrolling in units at different levels at the one time (eg: you should not enrol in Chinese 201 and 301 at the same time). Please check the current timetable as some units may not be offered every year. Advanced (Level 3) units may be offered on a rotational basis.

A major in Chinese comprises a sequence of 80 credit points with 60 credit points at Level 2 and 3 (with no less than 30 credit points of these at Level 3), however students commencing at beginners level, that is units 101 and 102, and who follow the recommended course structure, are only required to complete 20 credit points at Level 3.

Students should take units that reflect their level of competence in the language and they should not backtrack, i.e. they must not:

- take a Level 1 unit after passing a Level 2 unit in the same language; or

- take a Level 2 unit after passing a Level 3 unit in the same language.

Level 1 units

100056.2 Chinese 101
100057.2 Chinese 102

Level 2 units

102024.1 Chinese 201
102025.1 Chinese 202
102026.1 Chinese 203
102027.1 Chinese 204

Level 3 units

101951.1 Chinese 301
100063.2 Chinese 302
100064.2 Chinese 303: Twentieth-Century Chinese Literature
100065.2 Chinese 304: Chinese Classical Literature
100066.2 Chinese 305: Chinese Cinema
100510.2 Chinese 306: Traditional Chinese Thought
100067.2 Chinese 307: The Cultural Context of China
101950.1 Intercultural Communication
100201.2 Special Study in Languages and Linguistics

Major - Japanese

M1062.1

Language majors aim to enable students to develop an appropriate level of proficiency in a second language which may be used for professional purposes such as teaching, interpreting and translation, business or international relations. Students undertaking a language major will be able to use the language in question according to its grammatical and pragmatic principles, communicate with native speakers appropriately in the spoken as well as the written mode, and demonstrate an understanding of the cultures and societies associated with the language.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

There are Inherent Requirements for this major, please see link below:

There are three entry levels into language majors. Beginner's level is for those with no previous study or minimal study of the language. Intermediate level is typically for students who: are non-native speakers with study of the language to HSC 2 Unit level or have a home background in the language but no comprehensive formal study. Post-Intermediate level is typically for students who are non-native speakers with substantial formal study and near-native competence; or are literate native speakers of the language. Students should consult with the Languages staff regarding the progression sequence that best fits their level of skill. During the first two weeks of class, the lecturer will monitor the performance of students and advise

students who need to transfer to a higher or lower class. Students may consult with the Languages Course Advisor, if they are unsure of their entry level. Students should avoid enrolling in units at different levels at the one time (e.g. you should not enrol in Japanese 201 and 301 at the same time). Please check the current timetable as some units may not be offered every year. Advanced (Level 3) units may be offered on a rotational basis.

A major in Japanese comprises a sequence of 80 credit points with 60 credit points at Levels 2 and 3 (with no less than 30 credit points of these at Level 3), however students commencing at beginners level, that is units 101 and 102, and who follow the recommended course structure, are only required to complete 20 credit points at Level 3.

Students should take units that reflect their level of competence in the language and they should not backtrack, i.e. they must not:

- take a Level 1 unit after passing a Level 2 unit in the same language; or

- take a Level 2 unit after passing a Level 3 unit in the same language.

Level 1 units

100085.2 Japanese 101
100086.2 Japanese 102

Level 2 units

102028.1 Japanese 201
102029.1 Japanese 202 Speaking and Listening
102030.1 Japanese 203
102031.1 Japanese 204

Level 3 units

101952.1 Japanese 301
100092.3 Japanese 302
100093.2 Japanese 303: Contemporary Culture and Society
101970.1 Japanese 304: Discourse in Japanese
101971.1 Japanese 305: Advanced Reading and Writing
102219.1 Japanese 306: Japanese Popular Culture
101950.1 Intercultural Communication
100201.2 Special Study in Languages and Linguistics

Major - Indonesian

M1093.1

Language specialisations aim to enable students to develop an appropriate level of proficiency in a second language, which may be used for professional purposes such as teaching, interpreting and translation, business or international relations. Students undertaking a language specialisation will be able to use the language in question according to its grammatical and pragmatic principles, communicate with native speakers appropriately in the spoken as well as the written mode, and demonstrate an understanding of the cultures and societies associated with the language.

Location

Campus	Mode
Bankstown Campus	Internal

Specialisation Structure

There are three entry levels into language specialisations. Beginner's level is for those with no previous study or minimal study of the language. Intermediate level is typically for students who: are non-native speakers with study of the language to HSC 2 Unit level or have a home background in the language but no comprehensive formal study, or who speak a non-standard variety (e.g. dialect). Post-Intermediate level is typically for students who are non-native speakers with substantial formal study and near-native competence; or are literate native speakers of a standard variety. Students should consult with the Languages staff regarding the progression sequence that best fits their level of skill. During the first two weeks of class, the lecturer will monitor the performance of students and advise students who need to transfer to a higher or lower class. Students may consult with the Languages Academic Course Advisor, if they are unsure of their entry level. Students should avoid enrolling in units at different levels at the one time (e.g. you should not enrol in Indonesian 201 and 301 at the same time). Please check the current timetable as some units may not be offered every year. Advanced (Level 3) units may be offered on a rotational basis.

A specialisation in Indonesian comprises a sequence of 80 credit points with 60 credit points at Level 2 and 3 (with no less than 30 credit points of these at Level 3).

Students should take units that reflect their level of competence in the language and they should not backtrack, i.e. they must not:

- take a Level 1 unit after passing a Level 2 unit in the same language; or

- take a Level 2 unit after passing a Level 3 unit in the same language.

Level 1 units

102316.1 Indonesian 101
102326.1 Indonesian 102

Level 2 units

102319.1 Indonesian 201

Level 3 units

102320.1 Indonesian 301: Indonesian for Academic Purposes
101950.1 Intercultural Communication
100201.2 Special Study in Languages and Linguistics

Sub-major - Indigenous Australian Studies

SM1049.1

What does it mean to live in Indigenous Australia? The Indigenous Australian Studies Major and sub-majors offers

students the exciting opportunity to acquire key cultural competencies that will enable them to understand and work more effectively with Indigenous Australians in professions such as the arts, communications, media industries; education; government and non-government; policy; health; sciences; and community services. The Indigenous Australian Studies Major and sub-majors addresses the cultural, historical, social and economic issues affecting Indigenous and Non-Indigenous Australians and relationships.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students must complete 40 credit points as follows

101756.1 Bridging the Gap: Re-engaging Indigenous Learners
101751.2 Contextualising Indigenous Australia (Day Mode)
101752.1 Pigments of the Imagination

Choose one of

101758.1 Learning through Indigenous Australian Community Service (Day Mode)
101759.1 Rethinking Research with Indigenous Australians: Independent Study Project (Day Mode)
101757.1 The Making of the `Aborigines'

Sub-major - Indigenous Economics

SM1050.1

What does it mean to live in Indigenous Australia? The Indigenous Australian Studies Major and sub-majors offers students the exciting opportunity to acquire key cultural competencies that will enable them to understand and work more effectively with Indigenous Australians in professions such as the arts, communications, media industries; education; government and non-government; policy; health; sciences; and community services. The Indigenous Australian Studies Major and sub-majors addresses the cultural, historical, social and economic issues affecting Indigenous and Non-Indigenous Australians and relationships.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students must complete 40 credit points as follows

101751.2 Contextualising Indigenous Australia (Day Mode)
101753.2 Revaluing Indigenous Economics (Day Mode)
101757.1 The Making of the `Aborigines'

Choose one of

101758.1 Learning through Indigenous Australian Community Service (Day Mode)
101759.1 Rethinking Research with Indigenous Australians: Independent Study Project (Day Mode)

Sub-major - Indigenous Australian Creative Expressions

SM1051.1

What does it mean to live in Indigenous Australia? The Indigenous Australian Studies Major and sub-majors offers students the exciting opportunity to acquire key cultural competencies that will enable them to understand and work more effectively with Indigenous Australians in professions such as the arts, communications, media industries; education; government and non-government; policy; health; sciences; and community services. The Indigenous Australian Studies Major and sub-majors addresses the cultural, historical, social and economic issues affecting Indigenous and Non-Indigenous Australians and relationships.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students must complete 40 credit points as follows

101751.2 Contextualising Indigenous Australia (Day Mode)
101754.2 From Corroborees to Curtain Raisers (Day Mode)
101755.1 From Ochre to Acrylics to New Technologies

Choose one of

101758.1 Learning through Indigenous Australian Community Service (Day Mode)
101759.1 Rethinking Research with Indigenous Australians: Independent Study Project (Day Mode)

Sub-major - Psychological Studies

SM1069.1

The Psychological Studies sub-major comprises units in the discipline of psychology that focus on the field of inquiry that uses scientific techniques and methods to understand and explain behaviour and experience. Units in the program are drawn from the following core areas of psychology: brain and behaviour, learning, motivation and emotion, social psychology, lifespan development, perception, and cognitive processes. A Psychological Studies sub-major does not meet APAC requirements for an accredited sequence in Psychology. Students wishing to enrol in an accredited Psychology sequence should complete the Psychology key program of 200 credit points.

Location

Campus	Mode
Bankstown Campus	Internal
Penrith Campus	Internal

Specialisation Structure

This sub-major is restricted to students enrolled in - 1604 Bachelor of Arts, 1706 Bachelor of Arts, 1652 Bachelor of Arts (Pathway to Teaching Secondary), or 1655 Bachelor of Arts (Dean`s Scholars).

Students must complete 40 credit points as follows, to be eligible for the submajor.

Students must pass three compulsory foundation units:

100013.3 Experimental Design and Analysis
101183.2 Psychology: Behavioural Science
101184.2 Psychology: Human Behaviour

And choose one of

101684.3 Brain and Behaviour
101677.3 Cognitive Processes
101682.4 Developmental Psychology
101676.2 Human Learning
101680.3 Perception

Sub-major - Cultural and Social Analysis

SM1070.1

Cultural and Social Analysis is an interdisciplinary major developing knowledge, research skills and analytic capacities relevant to understanding and interpreting landscapes of cultural diversity and social difference in our contemporary world, both in terms of the broad contours, as well as specific micro-social environments. This major provides grounding in contemporary debates and methodologies in cultural studies and social theory, and draws on various disciplines including history, sociology, communications, and linguistics. Topics include popular culture, everyday urban life, cultural and social impacts of scientific theories and new technologies, multiculturalism, and contemporary spirituality. Study in this area is relevant for work involving commentary and analysis of contemporary social issues and cultural practices (e.g. journalism, teaching, activism) and fields concerned with designing, delivering and evaluating cultural and artistic productions, and education, communication, welfare or health services, in culturally diverse communities.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

To complete a sub major in Cultural and Social Analysis, students must complete 40 credit points. At least two units must come from the following four units:

100897.2 Everyday Life
101979.1 Understanding Visual Culture
101906.2 Researching Culture
101980.2 Culture, Society and Globalisation

Additional units to complete the sub major can be chosen from the above four units, or from the following pool units.

Note: Not all Units will be offered each year. Units will be offered on a rotational basis.

Levev 2 Unit Pool

101967.1 Cultural History of Books and Reading
101250.3 Digital Futures
100964.3 Introduction to Film Studies
100882.3 Politics of Sex and Gender
101917.1 Representing Everyday Life in Literary and Visual Cultures
10371.3 The Art Museum - from the Prince to the Public
101990.1 The Racial State
101989.1 Thinking Cinema
100291.5 Urban Life/Urban Culture
100298.3 Youth Cultures and Moral Panics

Level 3 Unit Pool

101981.1 Activism, Engagement and Social Change
101265.3 Children's Culture
101626.5 Children's Literature: Image and Text
101870.1 Climate Change and Culture
101984.1 Cinema and Experience
102185.1 Culture, Discourse and Meaning
100996.3 Death and Culture
100860.3 Emotions, Culture and Community
100866.3 Film and Drama
101716.3 Healing and Culture
101991.1 History of Sexuality
101988.1 Human Rights and Culture
100961.4 Humanities Internship
101468.2 Islam, Media and Conflict
101985.1 Politics, Power and Resistance
101987.1 Postcolonial Australian Cinema
101253.3 Public Memory and Commemoration
102191.1 Queer Culture

101003.2 Religion and Culture
101005.4 Representing Crime
101738.2 The Art Game: Fraud, Forgery, Theft and Perfidy
101009.3 The Body in Culture
101848.1 Transnationalism and Migration
101731.3 Understanding Power
101898.1 Violence in Everyday Life
101010.3 What is the Human?

Please note:

The Level 2 and level 3 units listed below count towards completion of the Submajor for students who passed any of these units in 2015 or earlier.

101295.2 Aesthetics
101408.2 Critical Discourse Analysis
101844.2 Feminist Theories
101879.2 Women with Muslim Identity

Sub-major - English

SM1071.1

The English major invites students to explore contemporary approaches to language, literary study and writing, including literary criticism and theory, linguistic analysis, genre and textual study, and creative writing. The English major focuses on the imaginative workings of language, and students can study a wide selection of modern and classic literature, as well as the relationships between written texts and other media such as film and information technology. Students also have the opportunity to produce their own creative writing and to edit and publish their work. Career prospects include publishing, editing, teaching, writing and advertising.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

To complete a sub major in English, students must complete 40 credit points from the units listed below.

Choose at least two of the following four units

101907.1 Introduction to Literary Studies
100641.3 Approaches to Text
101909.1 Methods of Reading
101976.2 English Literature After 1830

Additional units to complete the sub major can be chosen from the above four units, or from the following pool units.

Note: Not all units will be offered each year. Units will be offered on a rotational basis.

Level 1 Unit Pool

102080.1 Academic Writing

Level 2 Unit Pool

100900.4 Comedy and Tragedy
101967.1 Cultural History of Books and Reading
101986.1 International Texts and Contexts
100964.3 Introduction to Film Studies
101978.1 Modern Australian Poetry and Poetics
101917.1 Representing Everyday Life in Literary and Visual Cultures
101964.1 Sexual/Textual Politics in Victorian Women's Writing
101869.1 Studies in Postcolonial Literature
101795.3 The Musical
100896.3 Writing Fiction

Level 3 Unit Pool

100849.4 Australian Textual Studies
102205.1 Children's and Young Adult Fiction
101626.5 Children's Literature: Image and Text
101984.1 Cinema and Experience
100856.4 Creative Non-Fiction
100859.3 Creative Writing Project
102315.1 Crime Fiction
102185.1 Culture, Discourse and Meaning
100866.3 Film and Drama
100961.4 Humanities Internship
100875.4 Literature and Philosophy
101739.3 Literature and Trauma
101966.1 Literatures of Decolonisation
101033.4 Modernism
101650.3 Race in Literature
102078.1 Reading Ireland in the 1990s: Fiction, Poetry, Drama
101005.4 Representing Crime
101791.2 Short Fiction in the Americas
101832.2 Talking Normal: Sociolinguistics and Modern Literature
100893.4 The Novel
101880.1 The Space of Literature
101977.1 Women, Travel and Empire
101669.2 World Literature in Translation
101908.1 Writing and Reading Sci Fi and Fantasy
101670.3 Writing and Society
100895.4 Writing For Performance
101011.3 Writing Poetry
100582.2 Writing Portfolio
101796.1 19th Century American Literature
102099.1 20th Century American Literature

Please note:

The Level 2 and level 3 units listed below count towards completion of the Submajor for students who passed any of these units in 2015 or earlier.

101242.3 Children's Literature
101408.2 Critical Discourse Analysis
101724.2 Literary Animals
101406.2 Queering Text

Sub-major - History and Political Thought

SM1072.1

Since the revival of humanist thought in the Renaissance, universities have placed studies in history and political thought at the centre of exploring what it is to be human. At the heart of the History and Political Thought major are four compulsory units which introduce the student to the modern (since 1500) history of humanity. Although Europe is very prominent in the Major, the student will be invited to compare its history to the histories of Asia, Africa and the Americas. The Major culminates in a capstone unit in students' final semester discussing historical theories and methods. This will also provide an introduction to the Honours program for students who wish to pursue further studies and research. A wide range of elective units covers European, American, Australian and Asian history and political thought and includes thematic units which range widely over time and place.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

To complete a sub major in History and Political Thought, students must successfully complete 40 credit points from the units listed below.

Choose at least two of the following four units

101910.1 Global History
102000.1 Modern European History and Politics
101992.1 Religion and the Emergence of Modern Politics
102001.1 Theories and Methods of History

Additional units to complete the sub major can be chosen from the above four units, or from the following pool units.

Note: Not all units will be offered each year. Units will be offered on a rotational basis.

Level 2 Unit Pool

101882.1 A History of Modern Global Buddhism
100244.2 Ancient Western Culture: Periclean Athens
101973.1 Australian Politics
101967.1 Cultural History of Books and Reading
100861.3 Empire: European Colonial Rule and its Subjects, 1750-1920
100001.3 Keeping the Past
101797.2 Political Terror
100882.3 Politics of Sex and Gender
102002.1 Religion and the Origins of Modern Science
101871.2 War
101912.1 Western Political Philosophy

Level 3 Unit Pool

100985.2 American Foreign Policy Since 1945
100966.3 American History, 1898-1945
102004.1 Australian Colonial History
101872.1 Australian Indigenous History from Federation to Reconciliation
101919.1 Australian Indigenous History: From first contact to 'dying race'
102003.1 Comparative Nationalism
101799.2 Convicts and Settlers - Australian History 1788 - 1840
100903.2 Democracy in Asia
102188.1 Dictators, Democrats and Dreamers: Indonesia 1942 to now
101974.1 Enlightenment and Revolution
102007.1 Ethics in Historical Perspective
100254.3 Exploring Local History
101735.2 Global Politics
102006.2 Histories of Crime and Punishment
101991.1 History of Sexuality
100507.4 History of Modern China to 1949
102184.1 History of Muslim Civilisations and Ideas
100961.4 Humanities Internship
101988.1 Human Rights and Culture
101733.2 Looking at Global Politics Through Film
100271.3 Modern Japanese History
100278.2 Politics of Post-War Japan
101985.1 Politics, Power and Resistance
63178.2 Social and Political Developments in Contemporary China
102187.1 Sultans, Colonists and Nationalists: Indonesia C1200-1942
101782.2 The History and Politics of Contemporary Central Asia
101783.2 The International Relations of the Middle East Since 1945
102005.1 The Politics of Civilisation
101913.1 Theories of Authority
100969.2 Theories of Conflict and Violence
101999.1 Twentieth Century Australia
101798.2 Understanding Freedom
101866.1 United States Government and Politics
101993.1 War and Society in the Twentieth Century
102142.1 Warlords, Artists and Emperors: Power and Authority in Japanese History
101830.2 WWII in Asia and the Pacific

Please note:

The Level 2 and level 3 units listed below count towards completion of the Submajor for students who passed any of these units in 2015 or earlier.

102079.1 Britain in the Age of Botany Bay, 1760-1815
101972.1 The History of Modern Indonesia

Sub-major - International Relations and Asian Studies

SM1073.1

This major has been designed to meet the needs of Australian government, business and society to engage the states and peoples of Asia at all levels in pursuit of national interests and as part of the globalisation process. It provides students with the opportunity to study

contemporary Asia, as well as the rich and diverse histories, politics, cultures and languages of Asian countries and the international issues affecting Australia's interests and role in the region and in the world at large. The major area also includes a range of units concerned with the United States and Europe as well as with Asia itself, and units in international relations covering other parts of the world. It seeks to produce graduates with a broad, liberal education with the skills to mediate between Australia and the world in general and Asia in particular through political, economic, commercial, cultural, diplomatic and strategic links. Students are encouraged to undertake a sub-major in an Asian language in conjunction with the major. Employment opportunities may be found in the State and Commonwealth public service, overseas organisations, the media, business and industry, education and research.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

To complete a sub major in International Relations and Asian Studies, students must complete 40 credit points from the units listed below.

Choose two of

101442.2 Asia in the World
101956.1 Introduction to International Relations
100277.4 Politics of Australia and Asia Relations
101957.1 The Asian Century

Additional units to complete the sub major can be chosen from the above four units, or from the following pool units.

Note: Not all units will be offered each year. Units will be offered on a rotational basis.

Level 2 Unit Pool

101882.1 A History of Modern Global Buddhism
101968.1 Civil Society in Contemporary China
100861.3 Empire: European Colonial Rule and its Subjects, 1750-1920
101797.2 Political Terror
101972.1 The History of Modern Indonesia
101871.2 War

Level 3 Unit Pool

100985.2 American Foreign Policy Since 1945
100903.2 Democracy in Asia
102188.1 Dictators, Democrats and Dreamers: Indonesia 1942 to now
101735.2 Global Politics
100507.4 History of Modern China to 1949
100961.4 Humanities Internship
102189.1 International Organisations and Global Governance
102190.1 International Relations of Southeast Asia
102193.1 International Special Study
101467.2 Islam in Southeast Asia
101733.2 Looking at Global Politics Through Film
100271.3 Modern Japanese History
100278.2 Politics of Post-War Japan
63178.2 Social and Political Developments in Contemporary China
102187.1 Sultans, Colonists and Nationalists: Indonesia C1200-1942
101783.2 The International Relations of the Middle East Since 1945
102005.1 The Politics of Civilisation
101866.1 United States Government and Politics
102142.1 Warlords, Artists and Emperors: Power and Authority in Japanese History
101830.2 WWII in Asia and the Pacific

Please note:

The Level 2 and level 3 units listed below count towards completion of the Submajor for students who passed any of these units in 2015 or earlier.

101857.2 Doing Business in China
101782.2 The History and Politics of Contemporary Central Asia
101963.1 Understanding Global Insecurity

Sub-major - Islamic Studies

SM1074.1

Students engage in interdisciplinary study essential to an understanding of Islam, past and present. The area of study balances historical and modern Islamic studies and research methods. One of the keys to Islamic Studies is 'relevance' to contemporary Australian society but relevance can only come from a sound comprehension of past traditions in Islamic scholarship and their socio-historical contexts. Preparation for graduate study is also a key objective of this program, with its focus on developing critical and interdisciplinary research skills through a combination of approaches. Students are encouraged to undertake a sub-major in Arabic to complement the Islamic Studies major.

Location

Campus	Mode
Bankstown Campus	Internal

Specialisation Structure

Students must complete 40 credit points from the following pools.

Note: Not all units will be offered each year. Units will be offered on a rotational basis.

Level 2 Unit Pool

102294.1 Islam in the Modern World
101911.2 The Qur'an: An Introduction
101879.1 Women with Muslim Identity

Level 3 Unit Pool

101466.2 Ethical Traditions in Islam
102184.1 History of Muslim Civilisations and Ideas
101822.3 Islam in the West
101467.2 Islam in Southeast Asia

101468.2 Islam, Media and Conflict
101465.2 Islamic Law in a Changing World

Sub-major - Linguistics

SM1075.1

Language is fundamental to the human experience. Through study of how language works, students make contact with fundamental philosophical, socio-cultural, and psychological questions about what it means to be human. Linguistics prepares students with a foundation for many careers including primary and secondary teaching, policy analysis, communication, and social services in culturally diverse communities. Linguistics students also gain the analytical tools of empirical science including the ability to break complex problems into components with tractable solutions and to evaluate theories on the basis of empirical facts. These skills prepare students for success in post-graduate studies and careers in research, analytics, business and law.

Location

Campus	Mode
Bankstown Campus	Internal

Specialisation Structure

To complete a sub major in Linguistics, students must complete 40 credit points from the units listed below.

Choose at least two units from the following core units

101449.2 Bilingualism and Biculturalism
101945.2 Introduction to Linguistics
101947.1 Pragmatics
101451.2 Second Language Acquisition
101948.2 Structure of Language
102042.1 The Sound of Language

The other two units may be selected from the above list or from the pool units below

Level 3 Unit Pool

101946.1 Discourse Analysis
102043.1 Historical Linguistics
101950.1 Intercultural Communication
100023.5 Psychology of Language
102044.1 Research Methods in Linguistics
101450.2 Sociolinguistics

Sub-major - Philosophy

SM1076.1

Philosophy has always asked the “big questions” about our lives. These are questions, for example, about the limits of our knowledge, the best way that humans can live together, how we understand the world around us, and what is the good life. A philosophy major at UWS will enable students to develop particular skills and attributes - such as clear thinking, capacities to assess arguments and values, sound understanding of important philosophical views - that have always been essential to university scholarship, and which continue to be valuable for graduates in both public and private life.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

To complete a sub major in Philosophy, students must complete 40 credit points. At least two units must come from the following four foundation units

101918.1 Introduction to Philosophy
101915.1 Ethics and Philosophy
101914.1 Case Studies in Philosophy: Thinker
101916.1 Case Studies in Philosophy: Text

Additional units to complete the sub major can be chosen from the above four units, or from the following pool units.

Note: Not all units will be offered each year. Units will be offered on a rotational basis.

Level 2 Unit Pool

100244.2 Ancient Western Culture: Periclean Athens
100852.2 Classics of Modern Philosophy
101843.2 Philosophy and Environment
101881.2 Philosophy and the Good Life
101965.1 Philosophy of Religion
101867.2 The Ethical Life
101989.1 Thinking Cinema
101983.1 Truth and Knowledge
101912.1 Western Political Philosophy

Level 3 Unit Pool

101295.2 Aesthetics
102007.1 Ethics in Historical Perspective
101844.2 Feminist Theories
100961.4 Humanities Internship
100875.4 Literature and Philosophy
100275.4 Philosophies of Love and Death
100969.2 Theories of Conflict and Violence
101913.1 Theories of Authority
101798.2 Understanding Freedom
101731.3 Understanding Power
101010.3 What is the Human?

Sub-major - Arabic

SM1077.1

Language specialisations aim to enable students to develop an appropriate level of proficiency in a second language, which may be used for professional purposes such as teaching, interpreting and translation, business or international relations. Students undertaking a language specialisation will be able to use the language in question

according to its grammatical and pragmatic principles, communicate with native speakers appropriately in the spoken as well as the written mode, and demonstrate an understanding of the cultures and societies associated with the language.

Location

Campus	Mode
Bankstown Campus	Internal

Specialisation Structure

There are three entry levels into language sub-majors. Beginner's level is for those with no previous study or minimal study of the language. Intermediate level is typically for students who: are non-native speakers with study of the language to HSC 2 Unit level or have a home background in the language but no comprehensive formal study, or who speak a non-standard variety (e.g. dialect). Post-Intermediate level is typically for students who are non-native speakers with substantial formal study and near-native competence; or are literate native speakers of a standard variety. Students should consult with the Languages staff regarding the progression sequence that best fits their level of skill. During the first two weeks of class, the lecturer will monitor the performance of students and advise students who need to transfer to a higher or lower class. Students may consult with the Languages Academic Course Advisor, if they are unsure of their entry level. Students should avoid enrolling in units at different levels at the one time (e.g. you should not enrol in Arabic 201 and 301 at the same time). Please check the current timetable as some units may not be offered every year. Advanced (Level 3) units may be offered on a rotational basis.

A sub-major in Arabic is any sequence of 40 credit points with no more than 20 credit points at Level 1.

Students should take units that reflect their level of competence in the language and they should not backtrack, i.e. they must not:

- take a Level 1 unit after passing a Level 2 unit in the same language; or

- take a Level 2 unit after passing a Level 3 unit in the same language.

Level 1 units

100041.2 Arabic 101
100042.2 Arabic 102

Level 2 units

102019.1 Arabic 201
102020.1 Arabic 202
102021.1 Arabic 203
102022.1 Arabic 204

Level 3 units

101949.1 Arabic 301
100048.2 Arabic 302 - Arabic Advanced Language and Grammar
100049.2 Arabic 303: Advanced Writing Skills
100050.2 Arabic 304: Arabic Advanced Speaking
100052.2 Arabic 306: Arabic Novel and Short Story
100054.2 Arabic 308:Language Past and Present
101950.1 Intercultural Communication
100201.2 Special Study in Languages and Linguistics

Sub-major - Chinese

SM1078.1

Language majors aim to enable students to develop an appropriate level of proficiency in a second language which may be used for professional purposes such as teaching, interpreting and translation, business or international relations. Students undertaking a language major will be able to use the language in question according to its grammatical and pragmatic principles, communicate with native speakers appropriately in the spoken as well as the written mode, and demonstrate an understanding of the cultures and societies associated with the language.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

There are Inherent Requirements for this major. Please see link below:

There are three entry levels into language sub-majors. Beginner's level is for those with no previous study or minimal study of the language. Intermediate level is typically for students who: are non-native speakers with study of the language to HSC 2 Unit level or have a home background in the language but no comprehensive formal study, or who speak a non-standard variety (eg dialect). Post-Intermediate level is typically for students who are non-native speakers with substantial formal study and near-native competence; or are literate native speakers of a standard variety. Students should consult with the Languages staff regarding the progression sequence that best fits their level of skill. During the first two weeks of class, the lecturer will monitor the performance of students and advise students who need to transfer to a higher or lower class. Students may consult with Languages Course Advisor, if they are unsure of their entry level. Students should avoid enrolling in units at different levels at the one time (eg: you should not enrol in Chinese 201 and 301 at the same time). Please check the current timetable as some units may not be offered every year. Advanced (Level 3) units may be offered on a rotational basis.

A sub-major in Chinese is any sequence of 40 credit points with no more than 20 credit points at Level 1.

Students should take units that reflect their level of competence in the language and they should not backtrack, i.e. they must not:

- take a Level 1 unit after passing a Level 2 unit in the same language; or

- take a Level 2 unit after passing a Level 3 unit in the same language.

Level 1 units

100056.2 Chinese 101
100057.2 Chinese 102

Level 2 units

102024.1 Chinese 201
102025.1 Chinese 202
102026.1 Chinese 203
102027.1 Chinese 204

Level 3 units

101951.1 Chinese 301
100063.2 Chinese 302
100064.2 Chinese 303: Twentieth-Century Chinese Literature
100065.2 Chinese 304: Chinese Classical Literature
100066.2 Chinese 305: Chinese Cinema
100510.2 Chinese 306: Traditional Chinese Thought
100067.2 Chinese 307: The Cultural Context of China
101950.1 Intercultural Communication
100201.2 Special Study in Languages and Linguistics

Sub-major - Japanese

SM1080.1

Language majors aim to enable students to develop an appropriate level of proficiency in a second language which may be used for professional purposes such as teaching, interpreting and translation, business or international relations. Students undertaking a language major will be able to use the language in question according to its grammatical and pragmatic principles, communicate with native speakers appropriately in the spoken as well as the written mode, and demonstrate an understanding of the cultures and societies associated with the language.

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

There are Inherent Requirements for this major. Please see link below:

There are three entry levels into language sub-majors. Beginner's level is for those with no previous study or minimal study of the language. Intermediate level is typically for students who: are non-native speakers with study of the language to HSC 2 Unit level or have a home background in the language but no comprehensive formal study. Post-Intermediate level is typically for students who are non-native speakers with substantial formal study and near-native competence; or are literate native speakers of the language. Students should consult with the Languages staff regarding the progression sequence that best fits their level of skill. During the first two weeks of class, the lecturer will monitor the performance of students and advise students who need to transfer to a higher or lower class. Students may consult with the Languages Course Advisor, if they are unsure of their entry level. Students should avoid enrolling in units at different levels at the one time (e.g. you should not enrol in Arabic 201 and 301 at the same time). Please check the current timetable as some units may not be offered every year. Advanced (Level 3) units may be offered on a rotational basis.

A sub-major in Japanese is any sequence of 40 credit points with no more than 20 credit points at Level 1.

Students should take units that reflect their level of competence in the language and they should not backtrack, i.e. they must not:

- take a Level 1 unit after passing a Level 2 unit in the same language; or

- take a Level 2 unit after passing a Level 3 unit in the same language

Level 1 units

100085.2 Japanese 101
100086.2 Japanese 102

Level 2 units

102028.1 Japanese 201
102029.1 Japanese 202 Speaking and Listening
102030.1 Japanese 203
102031.1 Japanese 204

Level 3 units

101952.1 Japanese 301
100092.3 Japanese 302
100093.2 Japanese 303: Contemporary Culture and Society
101970.1 Japanese 304: Discourse in Japanese
101971.1 Japanese 305: Advanced Reading and Writing
102219.1 Japanese 306: Japanese Popular Culture
101950.1 Intercultural Communication
100201.2 Special Study in Languages and Linguistics

Sub-major - Indonesian

SM1112.1

Language specialisations aim to enable students to develop an appropriate level of proficiency in a second language, which may be used for professional purposes such as teaching, interpreting and translation, business or international relations. Students undertaking a language specialisation will be able to use the language in question according to its grammatical and pragmatic principles, communicate with native speakers appropriately in the spoken as well as the written mode, and demonstrate an understanding of the cultures and societies associated with the language.

Location

Campus	Mode
Bankstown Campus	External

Specialisation Structure

There are three entry levels into language sub-specialisations. Beginners level is for those with no previous study or minimal study of the language. Intermediate level is typically for students who: are non-native speakers with study of the language to HSC 2 Unit level or have a home background in the language but no comprehensive formal study, or who speak a non-standard variety (e.g. dialect). Post-Intermediate level is typically for students who are non-native speakers with substantial formal study and near-native competence; or are literate native speakers of a standard variety. Students should consult with the Languages staff regarding the progression sequence that best fits their level of skill. During the first two weeks of class, the lecturer will monitor the performance of students and advise students who need to transfer to a higher or lower class. Students may consult with the Languages Academic Course Advisor, if they are unsure of their entry level. Students should avoid enrolling in units at different levels at the one time (e.g. you should not enrol in Indonesian 201 and 301 at the same time). Please check the current timetable as some units may not be offered every year. Advanced (Level 3) units may be offered on a rotational basis.

A sub-specialisation in Indonesian is any sequence of 40 credit points with no more than 20 credit points at Level 1.

Students should take units that reflect their level of competence in the language and they should not backtrack, i.e. they must not:

- take a Level 1 unit after passing a Level 2 unit in the same language; or

- take a Level 2 unit after passing a Level 3 unit in the same language.

Level 1 units

102316.1 Indonesian 101
102326.1 Indonesian 102

Level 2 units

102319.1 Indonesian 201

Level 3 units

102320.1 Indonesian 301: Indonesian for Academic Purposes
101950.1 Intercultural Communication
100201.2 Special Study in Languages and Linguistics

SCHOOL OF NURSING AND MIDWIFERY

Bachelor of Midwifery

4684.1

This version of the course is available to new and continuing students. Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in the course was 2013 or later.

This course prepares graduates for eligibility to apply for registration throughout Australia as beginning professional registered midwife. This course will develop midwives for the future who can integrate local and international knowledge for the benefit of pregnant and birthing women in Greater Western Sydney, and beyond. Graduates will work in partnership with women (and their families) in order to provide effective 'woman centred' care. Graduates from UWS will practice according to the International Definition of the Midwife and the Australian Nursing and Midwifery Council National Competency Standards for the Midwife. Students will apply critical, reflective and intellectual skills to the provision of evidence based midwifery care. The acquisition of midwifery knowledge and skills occurs initially in campus-based simulated clinical practice settings and consolidation occurs as students undertake clinical placements in a variety of health care settings. Prospective students should be aware that full disclosure of any issues of impairment or misconduct is a declaration requirement when applying for registration as a registered midwife.

Study Mode
Three years full-time.

Location

Campus	Attendance	Mode
Parramatta Campus	Full Time	Internal

Advanced Standing
Applications for advanced standing are assessed on a case by case basis except where there is an agreed pattern of advanced standing for a particular qualification or pathways.

Accreditation
The Bachelor of Midwifery has accreditation and approval from Australian Health Practitioner Regulation Agency via their partner board the Nurses and Midwifery Board of Australia (NMBA). Please note: from 1 July 2010 practitioners applying for registration as a nurse or midwife for the first time in Australia are required to demonstrate English language proficiency as specified by the NMBA. These requirements include: a) the IELTS examination (academic module) with a minimum score of 7 in each of the four components (listening, reading, writing and speaking); or b) completion and an overall pass in the Occupational English Test (OET) with grades A or B only in each of the four components. For further details, refer to the NMBA website. Http://www.nursingmidwiferyboard.gov.au/Registration-Standards.aspx

Inherent requirements
There are inherent requirements for this course that you must meet in order to complete your course and graduate. Make sure you read and understand the requirements for this course online.

Admission
Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Special Requirements
Students will need to have completed the NSW Health Special Requirements for clinical practicum attendance. At present these include: a Working with Children Check student declaration; a Student Undertaking Form and have applied for a National Police Certificate; Adult Health Immunisation Schedule and Workcover accredited Senior First Aid Certificate. International Students must also provide an Overseas Police Check (with English Translation)

Course Structure
Qualification for this award requires the successful completion of 240 credit points including the units listed in the recommended sequence below.

Full-time

Year 1

Autumn session

401001.1 Primary Health Care in Action
401002.1 Bioscience 1
401030.1 Midwifery Knowledge 1
401045.1 Introduction to Midwifery Practice Experience

2H session

401033.1 Midwifery Practice Experience 1

Spring session

401005.1 Human Relations and Life Transitions
401031.1 Bioscience for Midwifery
401032.1 Midwifery Knowledge 2

Year 2

1H session

401035.1 Midwifery Practice Experience 2

Autumn session

401009.1 Health in a Culturally Diverse Community
401011.1 Research Principles for Nursing and Midwifery
401034.1 Midwifery Knowledge 3

2H session

401038.1 Midwifery Practice Experience 3

Spring session

401013.1 Promoting Mental Health and Wellbeing 1
401036.1 Complex Care 1
401037.1 Legal and Ethical Issues in Midwifery

Year 3

1H session

401042.1 Midwifery Practice Experience 4

Autumn session

401039.1 Complex Care 2
401040.1 Collaborative Care
401041.1 Midwifery Practice - Teaching and Learning

2H session

401043.1 Midwifery Practice - Models of Care
401044.1 Midwifery Practice Experience 5

Spring session

401021.1 Being a Professional Nurse or Midwife
401022.1 Leadership in Nursing and Midwifery

Midwifery Practice Experience

To enable students to experience midwifery practice across the calendar year as required by ANMAC, all Midwifery Practice Experience units (MPE's) are offered as 'H' units. The major types of experiences are in blocks of learning and in a woman-centred continuity of care model. Practice experiences for the Bachelor of Midwifery are documented within the practice units.

Practice Block

A number of practice experiences, in a variety of practice placements, are scheduled throughout the three year course. There are fewer hours of clinical practice in first year (approximately 25%) compared to second year (50%), with the most clinical practice allocated to the third year (75%) to enable students to consolidate their practice in readiness to meet the ANMC Competencies for practice as a midwife.

This practice occurs in blocks of time (from one day a week to five days per week) and includes working in hospital areas such as antenatal clinics; antenatal wards; birthing units; postnatal wards; newborn nursery; postnatal home visiting; operating theatres for caesarean sections; ultrasound clinics; fetal and maternal assessment units and gynaecology wards. The practice also includes working in such areas as community centres with child and family nurses; midwives in group practice; rural hospitals; and ambulance services.

Continuity of Care

Continuity of care/carer enables women to develop a relationship with the same caregiver(s) throughout pregnancy, birth and the postnatal period. Continuity of care/carer facilitates relationships and consistent information, which is essential to the provision of care that is safe, sensitive and appropriate. Students undertaking this course will be introduced to the theoretical concepts and evidence the bases for continuity of care/carer model within the Midwifery Knowledge units, while continuity of care / carer experience will be gained within the Midwifery Practice Experience units. Throughout the course, students will refine and develop their understanding of continuity of care/carer, underpinned by a woman-centred care philosophy, where women are involved in their own care, making informed choices and having control over both their care and their relationships with their caregivers. In this relationship-based care model, women generally feel that their choices are respected and supported (Johnson & Stewart, 2003). Students will follow 20 women over the course of the BMid within this model of care.

Students will begin their first midwifery practice placement within eight weeks of commencing the course in the Autumn semester or as soon as they have met all the pre-requisites. Students will attend well women's antenatal clinics on a weekly basis and begin by observing the practice of midwifery care. They will practice their midwifery skills on campus and as they gain confidence they will begin to have more 'hands on' approach under the supervision of a midwife. During the antenatal clinic placements it is expected that students will meet and work in partnership with five women in the continuity of care model in first and second years, while in third year they will follow 10 women, providing most of the 'hands on care' under the supervisor of a midwife. Students will follow the women throughout their pregnancy, labour and birth and during the postnatal period for up six weeks as determined by the woman, and the supervising midwife. This may include visits to the woman's home.

The practice blocks, together with the 20 continuity of care experiences across the calendar year, provide the BMid curriculum with approximately fifty percent clinical practice and fifty percent theory, which is a requirement of ANMC.

Bachelor of Nursing

4691.1

This version of the course is available to new and continuing students. Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in the course was 2013 or later.

This course prepares graduates for eligibility to apply for registration throughout Australia as beginning professional generalist registered nurses. The focus of the course is on inquiry-based learning, critical thinking and reflective practice in relation to the theory and practice of nursing in health and health breakdown across the lifespan. Using a primary health care framework students study application of physical and behavioural sciences to nursing; inquiry and

evidence-based practice principles and utilisation within nursing; nursing care of individuals, families and groups from diverse backgrounds across the lifespan. The acquisition of nursing knowledge and skills occurs initially in campus-based simulated clinical practice settings and consolidation occurs as students undertake clinical placements in a variety of health care settings. Prospective students should be aware that full disclosure of any issues of impairment or misconduct is a declaration requirement when applying for registration as a registered nurse. An English language skills registration standard is also applicable to all students applying for registration: (http:// www.nursingmidwiferyboard.gov.au)

Study Mode

Three years full-time. A reduced load may be possible in consultation with Academic Course Advisor. Details of units that could comprise a reduced study load can be located on the School of Nursing and Midwifery Homepage - http:// www.uws.edu.au/nursingandmidwifery

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Hawkesbury Campus	Full Time	Internal
Parramatta Campus	Full Time	Internal

Advanced Standing

Advanced standing is granted on a case by case basis. Prospective students will need to provide formal evidence of qualifications and supporting documentation to enable assessment. Decisions will be based on evidence of currency of the qualification and also evidence of equivalence in learning outcomes/ major content having been satisfactorily completed. Advanced standing for professional practice experience units may require the satisfactory completion of a skill challenge workshop prior to commencement of studies.
http://www.uws.edu.au/nursingandmidwifery

- Certificate 111 or IV Health Related Qualifications: 10 cps unspecified (elective)
- Enrolled Nurse/Division 2 Nurse – Certificate IV or Advanced Certificate
- Enrolled Nurse/Division 2 Nurse – Diploma
- Overseas Registered Nurse – Certificate
- Overseas Registered Nurse – Diploma (not post secondary school)
- Overseas Registered Nurse – Diploma (3years post secondary school)
- Overseas Registered Nurse – Degree

Accreditation

The Bachelor of Nursing has accreditation and approval from the Nurses and Midwives Board NSW. From 1 July 2010 the approval, recognition and accreditation of courses has been transferred to the Australian Nursing and Midwifery Council (ANMAC). Course accreditation can be checked on their website. Http://www.anmac.org.au/ accreditation-services. Please note: from 1 July 2010 practitioners applying for registration as a nurse or midwife for the first time in Australia are required to demonstrate English language proficiency as specified by the Nursing and Midwifery Board of Australia (NMBA). These requirements include: a) the IELTS examination (academic module) with a minimum score of 7 in each of the four components (listening, reading, writing and speaking); or b) completion and an overall pass in the Occupational English Test (OET) with grades A or B only in each of the four components. For further details, refer to the NMBA website. Http://www.nursingmidwiferyboard.gov.au/Registration-Standards.aspx

Admission

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Special Requirements

Students will need to have completed all of the special requirements before commencement of any Professional Practice Experience unit. Units with special requirements will remain invalid until these requirements are met. At present the special requirements include: a Working with Children Check student declaration; a Student Undertaking Form, a National Police Certificate; Adult Health Immunisation Schedule and First Aid Certificate. International Students must also provide an Overseas Police Check (with English Translation). Students who have not completed the special requirements prerequisites will not be able to enrol in Professional Practice Experience units and as a consequence are not permitted to attend professional practice placements.

Course Structure

Qualification for this award requires the successful completion of 240 credit points including the units listed in the recommended sequence below.

Full-time

Year 1

Autumn session

401000.1 Professional Practice Experience 1
401001.1 Primary Health Care in Action
401002.1 Bioscience 1
401003.2 Professional Communication

Spring session

401004.1 Professional Practice Experience 2
401005.1 Human Relations and Life Transitions
401006.1 Bioscience 2
401007.1 Approaches to Professional Nursing Practice

Year 2

Autumn session

401008.1 Professional Practice Experience 3
401009.1 Health in a Culturally Diverse Community
401010.1 Health Variations 1
401011.1 Research Principles for Nursing and Midwifery

Spring session

401012.1 Professional Practice Experience 4
401013.1 Promoting Mental Health and Wellbeing 1
401014.1 Health Variations 2
401015.1 Health Variations 3

Year 3

Autumn session

401016.1 Professional Practice Experience 5
401017.1 Promoting Mental Health and Wellbeing 2
401018.1 Health Variations 4
401019.1 Health Variations 5

Spring session

401020.1 Professional Practice Experience 6
401021.1 Being a Professional Nurse or Midwife
401022.1 Leadership in Nursing and Midwifery

And one elective

Additional Core Unit for Students with an Exceptional Study Pattern

To ensure currency of skill base, it is an accreditation requirement that students satisfactorily complete a minimum four week clinical practicum in the final session of their pre-registration Nursing program. Students within the Bachelor of Nursing who vary their study sequence significantly from the normal progression may be required to study the additional unit listed and should discuss this with the Academic Course Advisor.

400768.4 Maintaining Clinical Currency

Elective Units

The elective unit in the Bachelor of Nursing may be chosen from across UWS, provided that unit pre-requisites are met, space is available and students are able to meet all scheduled activities without compromising any nursing unit requirements.

The following are elective units in the Nursing discipline area which are not listed elsewhere in the Handbook.

400621.2 Bugs and Drugs
400961.1 Drugs on Line
400958.1 A Field Study: Comparative Studies of Health Care Delivery

Professional Practice Experience

The Professional Practice Experience is the foundation for student learning in the course. It consists of three major learning contexts for students: professional practice, service learning, and simulation. Professional practice in the health care sector may take place in any level of the health service appropriate to the focus for the specific Professional Practice Experience unit, for example aged care facilities, hospitals, GP practices, community health teams. This environment is essential for providing students complexity of the nursing experience, the ability to apply learning in situations involving ill persons, and socialises students into the work domain.

Simulation is a teaching and learning strategy where aspects of the professional practice environment, such as a hospital ward or patient, are artificially created to enable students to learn in a safe, non-threatening environment. Clinical practice units, simulated professional practice environments, will be used that allow students to undertake learning activities, such as administering medications and oxygen therapy. The School has a wide range of simulation equipment and dedicated high fidelity simulation rooms on each campus.

Service learning contexts are facilities offered within the local community related to health and well-being, for example a fitness centre, local pharmacist, child care centre, or homeless shelter. Students will develop learning objectives in collaboration with teaching staff and apply knowledge and skills learnt to these environments. This context allows the student to explore other health related support services outside the acute care sector.

The percentage of time spent by students in each context will vary, depending on the stage of the student in the course, the theoretical knowledge acquisition, and ANMC competency development. For example at the beginning of the course more hours will be spent in the simulation and service learning context than in the health care sector. As the course progresses there is a scaling up of hours spent in the health care sector with fewer hours being spent in the service learning and simulation contexts. In the final session of third year a significant proportion of knowledge and skills consolidation will occur primarily in a clinical practice environment.

Bachelor of Nursing (Advanced)

4693.1

This version of the course is available to new and continuing students. Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in the course was 2013 or later.

This course prepares graduates for eligibility to apply for registration throughout Australia as beginning professional generalist registered nurses. The focus of the course is on inquiry-based learning, critical thinking and reflective practice in relation to the theory and practice of nursing in health and health breakdown across the lifespan. Students study application of physical and behavioural sciences to

nursing; inquiry and evidence-based practice principles and utilisation within nursing; nursing care of individuals, families and groups from diverse backgrounds across the lifespan. The acquisition of nursing knowledge and skills occurs initially in campus-based simulated clinical practice settings and consolidation occurs as students undertake clinical placements in a variety of health care settings. Prospective students should be aware that full disclosure of any issues of impairment or misconduct is a declaration requirement when applying for registration as a registered nurse. Students should also be aware that the regulatory authority (the Nursing and Midwifery Board of Australia) may have additional criteria that the student will need to meet prior to registration to practice being granted.

Students in the Bachelor of Nursing (Advanced) will follow a similar study program set out for the Bachelor of Nursing. However there will be several units of study that engage students in additional learning, assessment and professional practice activities and opportunities. Each student will be allocated an Academic Mentor and are encouraged to participate in scholarly activities that will further enhance their knowledge and skills.

To maintain their enrolment in the Bachelor of Nursing (Advanced) students must maintain a Grade Point Average (GPA) of 5.5 or above, otherwise they will be transferred to the standard 4691 – Bachelor of Nursing course. At enrolment students will be required to sign a declaration acknowledging the requirement to maintain a GPA greater than or equal to 5.5.

Study Mode

Three years full-time. (This program will only be offered in full-time mode and is not available for students wishing to undertake a reduced load).

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Hawkesbury Campus	Full Time	Internal
Parramatta Campus	Full Time	Internal

Advanced Standing

Advanced standing is granted on a case by case basis. Students in this program will only be able to attract advanced standing for the elective unit (10 credit points unspecified). Prospective students will need to provide formal evidence of qualifications and supporting documentation to enable assessment. Credit transfer will be granted to eligible students internally transferring from the Bachelor of Nursing to the Bachelor of Nursing (Advanced) for completed first year nursing units.

Accreditation

The Bachelor of Nursing (Advanced) has accreditation and approval from the Nurses and Midwives Board NSW. From 1 July 2010 the approval, recognition and accreditation of courses has been transferred to the Australian Nursing and Midwifery Council (ANMAC). Course accreditation can be checked on their website. Http://www.anmac.org.au/accreditation-services. Please note: from 1 July 2010 practitioners applying for registration as a nurse or midwife for the first time in Australia are required to demonstrate English language proficiency as specified by the Nursing and Midwifery Board of Australia (NMBA). These requirements include: a) the IELTS examination (academic module) with a minimum score of 7 in each of the four components (listening, reading, writing and speaking); or b) completion and an overall pass in the Occupational English Test (OET) with grades A or B only in each of the four components. For further details, refer to the NMBA website. Http://www.nursingmidwiferyboard.gov.au/Registration-Standards.aspx

Admission

Students who are likely to attract an ATAR of more than 90 may apply for admission via UAC or transfer as a post UWS Year 1 Bachelor of Nursing student with a GPA of greater than 5.5

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Special Requirements

Students will need to have completed all of the special requirements before commencement of any Professional Practice Experience unit. Units with special requirements will remain invalid until these requirements are met. At present the special requirements include: a Working with Children Check student declaration; a Student Undertaking Form, a National Police Certificate; Adult Health Immunisation Schedule and First Aid Certificate. International Students must also provide an Overseas Police Check (with English Translation). Students who have not completed the special requirements prerequisites will not be able to enrol in Professional Practice Experience units and as a consequence are not permitted to attend professional practice placements.

Course Structure

Qualification for this award requires the successful completion of 240 credit points including the units listed in the recommended sequence below.

Full-time

Year 1

Autumn session

401000.1 Professional Practice Experience 1
401001.1 Primary Health Care in Action

401002.1 Bioscience 1
401003.2 Professional Communication

Spring session

401004.1 Professional Practice Experience 2
401005.1 Human Relations and Life Transitions
401006.1 Bioscience 2
401007.1 Approaches to Professional Nursing Practice

Year 2

Autumn session

401008.1 Professional Practice Experience 3
401009.1 Health in a Culturally Diverse Community
401010.1 Health Variations 1
401023.1 Research Principles for Nursing (Advanced)

Spring session

401012.1 Professional Practice Experience 4
401013.1 Promoting Mental Health and Wellbeing 1
401024.1 Health Variations 2 (Advanced)
401015.1 Health Variations 3

Year 3

Autumn session

401016.1 Professional Practice Experience 5
401025.1 Promoting Mental Health and Wellbeing 2 (Advanced)
401026.1 Health Variations 4 (Advanced)
401019.1 Health Variations 5

Spring session

401020.1 Professional Practice Experience 6
401027.1 Being a Professional Nurse (Advanced)
401028.1 Leadership in Nursing (Advanced)

And one elective

Additional Core Unit for Students with an Exceptional Study Pattern:

To ensure currency of skill base, it is an accreditation requirement that students satisfactorily complete a minimum 4 week clinical practicum in the final session of their pre-registration Nursing program. Students within the Bachelor of Nursing (Advanced) who vary their study sequence significantly from the normal progression may be required to study the additional unit listed and should discuss this with the Head of Program.

400768.4 Maintaining Clinical Currency

Elective Units:

The elective unit in the Bachelor of Nursing may be chosen from across UWS, provided that unit pre-requisites are met, space is available and students are able to meet all scheduled activities without compromising any nursing unit requirements.

The following are elective units in the Nursing discipline area which are not listed elsewhere in the Handbook. Some of these units are open to students from across UWS provided that prerequisites are met and space is available.

400621.2 Bugs and Drugs
400961.1 Drugs on Line
400958.1 A Field Study: Comparative Studies of Health Care Delivery

Professional Practice Experience

The Professional Practice Experience is the foundation for student learning in the course. It consists of three major learning contexts for students: professional practice, service learning, and simulation. Professional practice in the health care sector may take place in any level of the health service appropriate to the focus for the specific Professional Practice Experience unit, for example aged care facilities, hospitals, GP practices, community health teams. This environment is essential for providing students complexity of the nursing experience, the ability to apply learning in situations involving ill persons, and socialises students into the work domain.

Simulation is a teaching and learning strategy where aspects of the professional practice environment, such as a hospital ward or patient, are artificially created on campus to enable students to learn in a safe, non-threatening environment. Clinical Practice Units, simulated professional practice environments, will be used to allow students to undertake learning activities related to all core nursing skills such as administering medications and monitoring a patient's condition. The School has a wide range of simulation equipment and dedicated high fidelity simulation rooms on each campus.

Service learning contexts are facilities offered within the local community related to health and well-being, for example a fitness centre, local pharmacist, child care centre, or homeless shelter. Students will develop learning objectives for Service Learning placements in collaboration with teaching staff so that they can apply knowledge and skills to these environments. This context allows the student to explore health related support services outside the acute care sector.

The percentage of time spent by students in each context will vary depending on the stage of the student in the course, the theoretical knowledge already acquired and the stage of competency development. For example at the beginning of the course more hours will be spent in the simulation and service learning context than in the health care sector. As the course progresses there is a scaling up of hours spent in the health care sector with fewer hours being spent in the service learning and simulation contexts. In the final session of third year a significant proportion of knowledge and skills consolidation will occur primarily in a clinical practice environment.

Bachelor of Nursing (Graduate Entry)

4692.1

This version of the course is available to new and continuing students. Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in the course was 2014 or later.

This course prepares graduates for eligibility to apply for registration throughout Australia as beginning professional generalist registered nurses. The focus of the course is on inquiry-based learning, critical thinking and reflective practice in relation to the theory and practice of nursing in health and health breakdown across the lifespan. Using a primary health care framework students study application of physical and behavioural sciences to nursing; inquiry and evidence-based practice principles and utilisation within nursing; nursing care of individuals, families and groups from diverse backgrounds across the lifespan. The acquisition of nursing knowledge and skills occurs initially in campus-based simulated clinical practice settings and consolidation occurs as students undertake clinical placements in a variety of health care settings.

The Bachelor of Nursing (Graduate Entry) is offered as a two year course beginning with an intensive, full-time unit of study that supports student transition into second year of the 4691 Bachelor Nursing program.

Prospective students should be aware that full disclosure of any issues of impairment or misconduct is a declaration requirement when applying for registration as a registered nurse. An English language skills registration standard is also applicable to all students applying for registration:

Study Mode

Two years full time.

Location

Campus	Attendance	Mode
Hawkesbury Campus	Full Time	Internal

Advanced Standing

Additional advanced standing is not normally granted.

Accreditation

The Bachelor of Nursing (Graduate Entry) has accreditation and approval from the Nursing and Midwifery Board of Australia (NMBA) which is a partner board of the Australian Health Practitioners Registration Authority (AHPRA). Course accreditation can be checked on their website. http://www.nursingmidwiferyboard.gov.au/Accreditation.aspx. Please note: as from 1 July 2010 practitioners applying for registration as a nurse for the first time in Australia are required to demonstrate English language proficiency as specified by the Nursing and Midwifery Board of Australia (NMBA). These requirements include: a) the IELTS examination (academic module) with a minimum score of 7 in each of the four components (listening, reading, writing and speaking); or b) completion and an overall pass in the Occupational English Test (OET) with grades A or B only in each of the four components. For further details, refer to the website. Http://www.nursingmidwiferyboard.gov.au/Registration-Standards.aspx

Admission

Applicants must have successfully completed an (AEI-NOOSR equivalent) undergraduate degree in biological sciences, health or behavioural science (completed within the last 10 years),

OR

completed a three year post-secondary qualification as a registered nurse (completed within the last 10 years).

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Special Requirements

Students will need to have completed all of the special requirements before commencement of any Professional Practice Experience unit. Units with special requirements will remain invalid until these requirements are met. At present special requirements include: Working with Children Check Student Declaration; Student Undertaking form; National Police Certificate; Adult Health Immunisation Schedule; and a First Aid Certificate. International students also need to provide a Police Check (with English translation) from their home country and any other country where they have lived. Students who have not completed the special requirements prerequisites will not be able to enrol in Professional Practice Experience units and as a consequence are not permitted to attend professional practice placements.

Course Structure

Qualification for this award requires the successful completion of 170 credit points including the units listed in the recommended sequence below.

Full-time

Year 1

Summer B

401029.1 Foundations for Nursing Practice

Autumn session

401008.1 Professional Practice Experience 3
401009.1 Health in a Culturally Diverse Community
401010.1 Health Variations 1
401011.1 Research Principles for Nursing and Midwifery

Quarter 3

401065.1 Professional Practice Experience A

Spring session

401012.1 Professional Practice Experience 4
401013.1 Promoting Mental Health and Wellbeing 1
401014.1 Health Variations 2
401015.1 Health Variations 3

Year 2

Autumn session

401016.1 Professional Practice Experience 5
401017.1 Promoting Mental Health and Wellbeing 2
401018.1 Health Variations 4
401019.1 Health Variations 5

Spring session

401020.1 Professional Practice Experience 6
401021.1 Being a Professional Nurse or Midwife
401022.1 Leadership in Nursing and Midwifery

Additional Core Unit for Students with an Exceptional Study Pattern:

To ensure currency of skill base, it is an accreditation requirement that students satisfactorily complete a minimum four week clinical practicum in the final session of their pre-registration Nursing program. Students within the Bachelor of Nursing Graduate Entry (BNGE) who vary their study sequence significantly from the normal progression may be required to study the additional unit listed below and should discuss this with the BNGE Academic Course Advisor (ACA).

400768.4 Maintaining Clinical Currency

Professional Practice Experience

The Professional Practice Experience is the foundation for student learning in the course. It consists of three major learning contexts for students: professional practice, service learning, and simulation. Professional practice in the health care sector may take place in any level of the health service appropriate to the focus for the specific Professional Practice Experience unit, for example aged care facilities, hospitals, GP practices, community health teams. This environment is essential to provide students with the complexity of the nursing experience, the ability to apply learning in situations involving ill persons, and socialises students into the work domain.

Simulation is where aspects of the professional practice environment, such as a hospital ward or patient, are artificially created to enable students to learn in a safe, non-threatening environment. Clinical practice units, simulated professional practice environments, will be used that allow students to undertake learning activities, such as administering medications and oxygen therapy. The School has a wide range of simulation equipment and dedicated high fidelity simulation rooms on each campus.

Service learning contexts are facilities offered within the local community related to health and well-being, for example a fitness centre, local pharmacist, child care centre, or homeless shelter. Students will develop learning objectives in collaboration with teaching staff and apply knowledge and skills learnt to these environments. This context allows the student to explore other health related support services outside the acute care sector.

The percentage of time spent by students in each context will vary, depending on the stage of the student in the course, the theoretical knowledge acquisition, and ANMC competency development. For example at the beginning of the course more hours will be spent in the simulation and service learning context than in the health care sector. As the course progresses there is a scaling up of hours spent in the health care sector with fewer hours being spent in the service learning and simulation contexts. In the final session of third year a significant proportion of knowledge and skills consolidation will occur primarily in a clinical practice environment.

Bachelor of Nursing (Honours)

4529.2

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course was 2008 or later.

This program is designed for graduates of the Bachelor of Nursing degree and other similar degrees. Successful completion of the program will provide students with a sound basis for subsequent research within their own work environments as well as enabling them to progress to higher researcher-related programs.

This program provides an opportunity for students, under guidance, to plan and implement a research project in the area of nursing practice. Knowledge and experience gained by students through completing this program will contribute to the knowledge base for nursing practice.

The program of study combines a research project with course work. The course work, undertaken during the first semester of enrolment, comprises two units of study. The remainder of the program is devoted to completion of a research project and the preparation of a thesis.

This program can be undertaken concurrently with any new graduate transitional program offered by various hospitals.

Study Mode

One year full-time or two years part-time.

Location

Campus	Attendance	Mode
Parramatta Campus	Full Time	Multi Modal
Parramatta Campus	Part Time	Multi Modal

Advanced Standing

Advanced Standing will be assessed in accordance with UWS policy.

Admission

The Bachelor of Nursing (Honours) degree is a second award as nursing students must satisfy the requirements for State registration as a Registered Nurse with a Bachelor's pass before proceeding into an Honours program.

Applicants must have obtained a Grade Point Average (GPA) of 5 (Credit level) or better throughout their Bachelor

of Nursing course or a GPA of 5.75 or better in the final year of their Bachelor of Nursing (pass) degree. This criterion ensures that candidates are capable of achieving the high standards required for Bachelor of Nursing (Honours) studies. In addition, applicants must have completed at least 20 credit points of research or equivalent at an undergraduate level.

International applicants should contact UWS International for details on admission. Contact information for the International Office is available via the UWS website.

Special Requirements

To be enrolled in this course students must comply with the Occupational Screening and Vaccination Policy of NSW Health at course commencement.

Course Structure

Qualification for this award requires the successful completion of 80 credit points including the units listed in the recommended sequence below.

Recommended Sequence

Full-time

Year 1

Autumn session

400803.2 Research in Nursing Practice
400202.2 Nursing Honours Thesis A (Full-time)
400201.3 Readings and Methodology

Spring session

400203.2 Nursing Honours Thesis B (Full-time)

Part-time

Year 1

Autumn session

400803.2 Research in Nursing Practice

Spring session

400201.3 Readings and Methodology

2H session

400204.2 Nursing Honours Thesis (Part-time)

Year 2

1H session

400204.2 Nursing Honours Thesis (Part-time)

2H session

400204.2 Nursing Honours Thesis (Part-time)

SCHOOL OF COMPUTING, ENGINEERING AND MATHEMATICS

Bachelor of Applied Leadership and Critical Thinking

3725.1

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course was 2015 or later.

The Bachelor of Applied Leadership and Critical Thinking (BALCT) is not a stand-alone degree, but is designed to be undertaken in combination with any bachelor degree. It focuses on ethical leadership, creativity, entrepreneurship and innovation, capacity to deal with complexities, relationship and critical thinking skills. The Academy's three pillars of academic rigour, professional and personal development and community engagement provide the perfect base upon which to offer this innovative degree. These characteristics and aptitudes are what the employer of tomorrow will be seeking in a graduate. Students enrolled in this degree will think from multiple perspectives, see and create opportunities, and bring creative, cooperative, empathetic and ethical leadership to his or her future role in the workplace – even if that role is, as yet, unimagined.

Study Mode

Four years or five years full time depending on duration of undergraduate degree (see Pathways listed under Course Structure below) or the equivalent part-time.

Location

Campus	Attendance	Mode
Parramatta Campus	Full Time	Multi Modal
Parramatta Campus	Part Time	Multi Modal

Inherent requirements

There are inherent requirements for this course that you must meet in order to complete your course and graduate. Make sure you read and understand the requirements for this course online.

Admission

Assumed knowledge: two units of HSC English.

This course is made available to high-achieving students only. To be eligible for admission to the BALCT, a student must attain a minimum ATAR of 80, or the minimum ATAR for their primary undergraduate degree, whichever is the higher.

Students must also maintain a grade point average of 5 or above throughout the duration of their study.

Current UWS students wishing to enrol must have a minimum GPA for 5 or above.

Non-school leavers must have completed an undergraduate degree with a minimum GPA of 5.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Special Requirements

Students must have completed all requirements for another bachelors degree in order to graduate with the Bachelor of Applied Leadership and Critical Thinking.

Course Structure

The Bachelor of Applied Leadership and Critical Thinking (BALCT) is not a stand-alone degree, but is designed to be undertaken in combination with any bachelor degree.

Qualification for this award requires the successful completion of 80 credit points which include the units listed in the recommended sequence below.

Recommended Sequence

Standard Pathway

Year 1

Autumn session

102211.1	Creativity, Innovation and Design Thinking
200855.1	Leadership in a Complex World
301071.1	Introduction to Critical Thinking
301069.1	Research Stories

2H Session

301072.1	Innovation Lab

Spring session

102250.1	Ethical Leadership
301070.1	Logic, Rhetoric and Argumentation
102212.1	Internship and Community Engagement

Four Year Accelerated Pathway

Year 1

Summer session

200855.1	Leadership in a Complex World

Year 2

Summer session

102211.1 Creativity, Innovation and Design Thinking
301071.1 Introduction to Critical Thinking

Year 3

Summer session

102250.1 Ethical Leadership
301069.1 Research Stories

Year 4

Summer session

301070.1 Logic, Rhetoric and Argumentation
102212.1 Internship and Community Engagement
301072.1 Innovation Lab

Five Year Accelerated Pathway

Year 1

Summer session

200855.1 Leadership in a Complex World

Year 2

Summer session

102211.1 Creativity, Innovation and Design Thinking
301071.1 Introduction to Critical Thinking

Year 3

Summer session

102250.1 Ethical Leadership
301069.1 Research Stories

Year 4

Summer session

301070.1 Logic, Rhetoric and Argumentation

Year 5

Summer session

102212.1 Internship and Community Engagement
301072.1 Innovation Lab

Bachelor of Computer Science

3506.7

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course was 2014 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

The Bachelor of Computer Science course provides students with a thorough and in-depth technical understanding of modern networked computer systems. This understanding includes how these computer systems are put together, how they work and what are the principles that govern them. Based on this solid foundation students then have the opportunity to further learn the practical skills needed to design, develop and integrate the networked computer systems required by today's large organisations. This course is a three year course with three distinct majors which allow students to specialise in different applications of computer science and computer systems. The three majors are: systems security, networked systems and systems programming.

Study Mode
Three years full-time.

Location

Campus	Attendance	Mode
Penrith Campus	Full Time	Internal

Accreditation
The Bachelor of Computer Science currently is accredited with the Australian Computer Society (ACS) at Professional Level.

Admission
Assumed Knowledge: HSC Mathematics and any two units of HSC English.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English.

Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure
Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequence below.

Recommended Sequence

Full-time - Start Year Intake

Year 1

Autumn session

300700.5 Statistical Decision Making
300580.2 Programming Fundamentals
100483.2 Principles of Professional Communication 1
200025.2 Discrete Mathematics

Spring session

300096.5 Computer Organisation
300147.4 Object Oriented Programming
300104.4 Database Design and Development
300565.2 Computer Networking

Year 2

Autumn session

300952.1 Wireless and Mobile Networks
300103.3 Data Structures and Algorithms
300582.2 Technologies for Web Applications

And one elective

Spring session

300960.3 Mobile Applications Development
300128.4 Information Security
300115.3 Distributed Systems and Programming

And one elective

Year 3

Autumn session

300578.3 Professional Development
300167.3 Systems Programming 1

And two electives

Spring session

300579.5 Professional Experience
300404.2 Formal Software Engineering

And two electives

Full-time - Mid-Year Intake

Year 1

Spring session

300580.2 Programming Fundamentals
300104.4 Database Design and Development
300565.2 Computer Networking

And one elective

Autumn session

300700.5 Statistical Decision Making
100483.2 Principles of Professional Communication 1
200025.2 Discrete Mathematics
300582.2 Technologies for Web Applications

Year 2

Spring session

300096.5 Computer Organisation
300147.4 Object Oriented Programming
300960.3 Mobile Applications Development

And one elective

Autumn session

300952.1 Wireless and Mobile Networks
300103.3 Data Structures and Algorithms
300578.3 Professional Development

And one elective

Year 3

Spring session

300128.4 Information Security
300404.2 Formal Software Engineering
300115.3 Distributed Systems and Programming

And one elective

Autumn session

300579.5 Professional Experience
300167.3 Systems Programming 1

And two electives

Accelerated Pathway - Summer Sessions

Year 1

Autumn session

300700.5 Statistical Decision Making
300580.2 Programming Fundamentals
100483.2 Principles of Professional Communication 1
200025.2 Discrete Mathematics

Spring session

300096.5 Computer Organisation
300147.4 Object Oriented Programming
300104.4 Database Design and Development
300565.2 Computer Networking

Summer A session

300582.2 Technologies for Web Applications
300952.1 Wireless and Mobile Networks

Year 2

Autumn session

300103.3 Data Structures and Algorithms

And three electives

Spring session

300404.2 Formal Software Engineering

300128.4 Information Security
300115.3 Distributed Systems and Programming

And one elective

Summer A session

300578.3 Professional Development
300960.3 Mobile Applications Development

Year 3

Autumn session

300579.5 Professional Experience
300167.3 Systems Programming 1

And two electives

Recommended Elective Units

300093.4 Computer Graphics
300095.4 Computer Networks and Internets
300130.3 Internet Programming
300143.3 Network Security
300166.2 Systems and Network Management
300799.1 Advanced Theoretical Computer Science
300368.2 Intelligent Systems
300575.2 Networked Systems Design
300569.2 Computer Security
300583.2 Web Systems Development
300698.4 Operating Systems Programming
300958.1 Social Web Analytics
300165.3 Systems Administration Programming

Majors

The majors listed below were designed specifically for this course and are recommended for Bachelor of Computer Science students.

M3071.1 Systems Programming
M3072.1 Networked Systems
M3073.1 Systems Security

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Computer Science (Advanced)

3634.4

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course was 2014 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This course is an advanced version of Bachelor of Computer Science. It provides students with a thorough and in-depth technical understanding of modern networked computer systems. This understanding includes how these computer systems are put together, how they work and what are the principles that govern them. Based on this solid foundation students then have the opportunity to further learn the practical skills needed to design, develop and integrate the networked computer systems required by today's large organisations. This course is a three year course with three distinct majors which allow students to specialise in different applications of computer science and computer systems. The three majors are: systems security, networked systems and systems programming.

Students in the Bachelor of Computer Science (Advanced) will follow the same study program that is set out for the Bachelor of Computer Science. However, each student in this course will have an academic mentor and the student will also participate in additional compulsory activities including research projects. To maintain their enrolment in the Bachelor of Computer Science (Advanced) students must maintain an overall above 5 Grade Point Average, otherwise they will be transferred to the standard 3506 – Bachelor of Computer Science course. At enrolment students will be required to sign a declaration acknowledging the need to maintain a grade-point average (GPA) of 5.0 or more.

For more information refer to the entry for 3506 Bachelor of Computer Science.

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Penrith Campus	Full Time	Internal

Accreditation

The Bachelor of Computer Science currently is accredited with the Australian Computer Society (ACS) at Professional Level.

Admission

Assumed Knowledge: HSC Mathematics and any two units of HSC English.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English.

Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English

proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

In addition to the units outlined in the course structure for 3506 Bachelor of Computer Science, students in the advanced program must also complete the following three units.

Students must enrol in both 1H and 2H sessions.

Year 1

1H session

300586.2 Advanced Computer Science Activities 1

2H session

300586.2 Advanced Computer Science Activities 1

Year 2

1H session

300587.2 Advanced Computer Science Activities 2

2H session

300587.2 Advanced Computer Science Activities 2

Year 3

1H session

300588.2 Advanced Computer Science Activities 3

2H session

300588.2 Advanced Computer Science Activities 3

Sub-major elective spaces

Students in Advanced courses may use elective units toward obtaining an additional approved sub-major in Applied Leadership or Critical Thinking.

Bachelor of Computer Science (Honours)

3614.2

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2013 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

The Honours program encourages independence in learning and research; further develops academic ability, provides the opportunity to pursue undergraduate studies to a more advanced level, deepen intellectual understanding in the major field of study and develop research skills. Honours is a recognised point of entry into postgraduate research studies at PhD and Masters levels. If a career in industry is sought, Honours enables study to a more advanced level with a higher qualification. The course has the opportunity for direct commercial and industrial involvement with a diverse range of organisations through the provision and joint supervision of research projects.

Study Mode

One year full-time or two years part-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Campbelltown Campus	Part Time	Internal
Parramatta Campus	Full Time	Internal
Parramatta Campus	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal

Admission

Assumed Knowledge: Bachelor Degree

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International. International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 80 credit points including the units listed below.

Recommended Sequence

Year 1

Students must enrol in 300363 and 300364 in both 1H and 2H sessions.

1H and 2H

300364.3 Computing Honours Seminar Program

1H and 2H

300363.3 Computing Honours Thesis

1H or 2H

Elective (Level 3 or above) – To be selected after discussion with student supervisor

Bachelor of Construction Management

2607.7

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This course is aimed at providing the skills and abilities necessary to perform competently at a professional level in the building industry, in one or more of the following roles: Construction Managers, Project Managers, Building Supervisors, Estimators, Quantity Surveyors and Building Researchers.

Students will develop specialised skills in construction management. The Construction Management program is widely recognised for delivering the full suite of theoretical, practical, and hands-on experience in the area of construction management. Students will study four concentrated areas related to the delivery of construction projects. These are construction technology; construction economics; construction law; and construction resource management. Additionally, students will be required to undertake a total of 1,200 hours approved practical experience during the course.

There are a number of opportunities during the course for obtaining a cadetship in the building industry in areas including building surveying, construction economics, and construction management.

Study Mode

Four years full-time or part-time equivalent.

Location

Campus	Attendance	Mode
Penrith Campus	Full Time	Internal

Advanced Standing

Advanced standing is available to students who have completed the following courses at TAFE. Diploma of Building Studies, Diploma of Quantity Surveying, Diploma of Building Surveying, Diploma of Civil Engineering, Diploma of Structural Engineering, Diploma of Architectural Technology or relevant Diploma.

Accreditation

The Bachelor of Construction Management is accredited with the Australian Institute of Building. Graduates are eligible for Probationer membership with advancement to Associate membership of the Australian Institute of Quantity Surveyors (AIQS) after Assessment of Professional Competence.

Admission

Assumed knowledge required: HSC Mathematics, Physics and English.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International. International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Academic Course Advisor

Qualification for this award requires the successful completion of 320 credit points which include units in the recommended sequence below. Electives within the sequence may be used towards obtaining an approved submajor for this award.

Recommended Sequence

Full-time

Year 1

Autumn session

300706.2 Building 1
300729.2 Graphic Communication and Design
300975.1 Professional Competencies
300016.2 Design Science

Spring session

300707.2 Building 2
200184.3 Introduction to Business Law
200101.4 Accounting Information for Managers
200571.4 Management Dynamics

Year 2

Autumn session

300720.2 Construction Technology 1 (Civil)
200486.3 Quantity Surveying 1
200472.3 Material Science in Construction
300723.2 Development Control

Spring session

300721.4 Construction Technology 2 (Substructure)
200468.2 Estimating 1
300885.1 Building Regulations Studies

Elective 1

Year 3

Autumn session

200502.3 Construction Technology 3 (Concrete Construction)
200485.2 Decision Making for Construction Professionals
300727.2 Project Management
300728.2 Construction Planning

Spring session

200470.4 Construction Technology 4 (Steel Construction)
300886.1 Construction in Practice 1
300053.3 Professional Practice
200292.2 Building Law

Non-Honours Stream

Year 4

Autumn session

200471.3 Construction Technology 5 (Envelope)
200504.2 Construction Economics
300536.3 Major Project in Construction

Elective 3

Spring session

300725.2 Construction Technology 6 (Services)
200484.4 Construction in Practice 3

Elective 2

Elective 4

Honours Stream

An Honours stream is offered - see the Honours in Bachelors Awards Policy and associated College Guidelines for the admission criteria.

Year 4 (Honours stream - H3000)

Autumn session

200471.3 Construction Technology 5 (Envelope)
200504.2 Construction Economics
300675.2 Honours Thesis

Spring session

300725.2 Construction Technology 6 (Services)
200484.4 Construction in Practice 3
300675.2 Honours Thesis

Sub-major in Construction Economics

SM3029.1 Construction Economics

To graduate with a sub-major in Construction Economics students must successfully complete the following specialist units in place of elective units.

Specialist unit

200503.2 Construction Information Systems

Specialist unit

200487.3 Quantity Surveying 2

Specialist unit

300748.2 Quality and Value Management

Specialist unit

300726.2 Estimating 2

All students enrolled in Bachelor of Construction Management must obtain, through their own initiative, 1200 hours of construction management related employment before being eligible for graduation.

To facilitate the recording of such experience it will be necessary to enrol in 300724 Industry Based Learning and have an Industry Experience Diary signed off by the Course Coordinator.

300724.2 Industry Based Learning

Examples of sub majors that students could complete

SM2050.1 Property Investment
SM1093.1 Geography and Urban Studies

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Construction Management Studies (Exit only)

3697.1

This is an Exit course only. Applicants apply to 2769 Bachelor of Construction Management Studies/Bachelor of Laws and exit with the Bachelor of Construction Management Studies award.

Study Mode

Three years full-time or six years part-time.

Location

Campus	Attendance	Mode
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal

Course Structure

Recommended Sequence

Full-time

Year 1

Autumn session

200006.2 Introduction to Law
200008.3 Torts Law
300706.2 Building 1
300729.2 Graphic Communication and Design

Spring session

200007.2 Law Foundation
200010.2 Criminal Law
300707.2 Building 2
200101.4 Accounting Information for Managers

Year 2

Autumn session

200011.2 Contracts
300720.2 Construction Technology 1 (Civil)
200486.3 Quantity Surveying 1
300723.2 Development Control

Spring session

200012.3 Property Law
300721.4 Construction Technology 2 (Substructure)
200468.2 Estimating 1
300885.1 Building Regulations Studies

Year 3

Autumn session

200020.5 Professional Responsibility and Legal Ethics
200502.3 Construction Technology 3 (Concrete Construction)
300727.2 Project Management
300728.2 Construction Planning

Spring session

200009.3 Constitutional Law
200470.4 Construction Technology 4 (Steel Construction)
300536.3 Major Project in Construction
200484.4 Construction in Practice 3
300724.2 Industry Based Learning

Bachelor of Construction Technology

3692.1

This course replaces 3635 - Bachelor of Housing from 2015.

This course provides the skills and abilities necessary to perform competently at a professional level in the residential construction industry, in one or more of the following roles: Site Manager, Building Supervisor, Estimator and Building Surveyor. Students will develop specialised skills in construction management. The Construction Technology program is widely recognised for delivering the full suite of theoretical, practical, and hands-on experience in the area of residential construction. Students will study four concentrated areas related to the delivery of residential construction projects. These are construction technology; construction economics; construction law; and construction resource management. There may be a number of opportunities during the course to obtain a cadetship in the building industry in areas including project home building, building surveying and residential development. The three year Bachelor of Construction Technology program may be used as a pathway to the four year Bachelor of Construction Management program which meets the Australian Institute of Building (AIB) professional accreditation requirements.

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Penrith Campus	Full Time	Internal

Admission

Assumed knowledge required: Normal UWS ATAR score with HSC 2 unit Mathematics, Physics and English for entry into first year.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Details of minimum English proficiency requirements and acceptable proof can be found on the Universities Admissions Centre website (UAC).

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Academic Course Advisor

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequence below. Students should have no more than 100 credit points of Level 1 units and no fewer than 60 credit points of Level 3 Units.

In some instances due to resource and demand considerations, there may be a need to rearrange the pattern set down below.

Electives within the sequence may be used towards obtaining an approved major or sub-major for this award.

Recommended Sequence

Full-time

Year 1

Autumn session

300706.2 Building 1
300729.2 Graphic Communication and Design
300975.1 Professional Competencies
300016.2 Design Science

Spring session

200184.3 Introduction to Business Law
200101.4 Accounting Information for Managers
300707.2 Building 2
200571.4 Management Dynamics

Year 2

Autumn session

300720.2 Construction Technology 1 (Civil)
200486.3 Quantity Surveying 1
200472.3 Material Science in Construction
300723.2 Development Control

Spring session

300721.4 Construction Technology 2 (Substructure)
200468.2 Estimating 1
300885.1 Building Regulations Studies

And Elective 1

Year 3

Autumn session

200485.2 Decision Making for Construction Professionals
300727.2 Project Management
300728.2 Construction Planning

And Elective 2

Spring session

300886.1 Construction in Practice 1
300053.3 Professional Practice
200292.2 Building Law

And Elective 3

Please note

Students may choose electives from any course at UWS including the following:

Elective 1 options

Choose one of the following

200503.2 Construction Information Systems
200502.3 Construction Technology 3 (Concrete Construction)

Elective 2 option

300748.2 Quality and Value Management

Elective 3 options

Choose one of

200487.3 Quantity Surveying 2
200470.4 Construction Technology 4 (Steel Construction)

Bachelor of Construction Technology students wishing to continue on to gain Bachelor of Construction Management are required to undertake the following electives:

200502.3 Construction Technology 3 (Concrete Construction)
200470.4 Construction Technology 4 (Steel Construction)

Bachelor of Design and Technology

3502.7

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course was 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This course prepares students for a career in industrial design and/or industrial graphics. This is achieved by providing a sound knowledge of units in a broad range of design disciplines, including design methodology, design innovation, product design, ergonomics, manufacturing technology and design, aesthetics, management 2D and 3D CAD. Students interested in a teaching career in Design and Technology may take the end-on Bachelor of Teaching degree or Graduate diploma in Education after completing their Design and Technology degree.

Study Mode

Three years full-time. Combinations of full-time and part-time study or all part-time study are also permitted.

Location

Campus	Attendance	Mode
Penrith Campus	Full Time	Internal

Accreditation

Graduates are eligible for membership of the Design Institute of Australia (DIA).

Admission

There are no specific subject prerequisites for entry into the course. Preferably, students should have successfully

completed the HSC at the 2U level or better in English and at least two of the following units: Design & Technology, Arts, Physics, and Mathematics. Alternative entry: Certificate, Associate Diploma or Advanced Diploma from TAFE or another recognized teaching institution or equivalent in the discipline area. In some cases, professional experience will be counted towards alternative entry.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequence below.

To be eligible to graduate from this course, students are required to complete a sub-major. Refer to the 'note' after the sub-major listing, for further details.

Recommended Sequence

Full-time

Year 1

Autumn session

301030.1 Introduction to Industrial Design Methods
300016.2 Design Science
300776.2 Applied Ergonomics
200191.5 Fundamentals of Mathematics

Spring session

301036.1 Form and Production
300302.2 Industrial Graphics 1: Presentation
300304.3 Sustainable Design: Materials Technology
200083.2 Marketing Principles

Year 2

Autumn session

300305.3 Design Studio 1: Themes and Variations
300282.2 Industrial Graphics 2: Transition
300570.3 Human-Computer Interaction

Choose one of
One sub-major alternate unit
Or one elective

Spring session

300308.3 Design Studio 2: The Design Proposal
300306.4 Sustainable Design: Sustainable Futures
300310.3 Industrial Graphics 3: 3D Solids

Choose one of
One sub-major alternate unit
Or one elective

Year 3

Autumn session

300311.3 Design Studio 3: Product Realisation
300014.3 Design Management 3: Organisational Skills for Designers

Choose one of
Two sub-major alternate units
Or two electives

Spring session

300313.3 Design Studio 4: Simulate to Innovate
300314.2 Designed Inquiry

Choose one of
Two sub-major alternate units
Or two electives

Industrial Experience

300775.2 Industrial Experience

Majors

There are three Majors available, composed of units from the program, however these are not compulsory.

M3087.1 Innovation Design Management
M3076.1 Interactive Industrial Graphics
M3077.1 International Design Management

Sub-majors

There are three sub-majors, composed of units from the program.

SM3061.1 Design Management
SM3059.1 Industrial Graphics
SM3060.1 Sustainable Design

Note: In addition to the sub-major streams/electives offered from within Industrial Design (as listed above) students may choose other sub-major streams/electives within the School of Computing, Engineering and Mathematics or the University of Western Sydney or other universities (as cross institutional studies).

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Engineering

3689.2

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

The Bachelor of Engineering is a four year degree program with common first year structure. The program has been designed to meet Engineers Australia professional accreditation requirements. It allows students the opportunity to choose a discipline area by selecting a key program in Civil, Construction, Electrical, Mechanical, and Robotic & Mechatronic engineering. In addition, students can specialise by selecting a sub-major from a wide range of recommended unit sets that will compliment their chosen discipline. An honours stream is available to students during fourth year of their study; students will be invited to undertake honours thesis based on overall academic performance in the first three years of their engineering study.

Study Mode

Four years full-time or part-time equivalent.

Location

Campus	Attendance	Mode
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal

Accreditation

Graduates of this program are eligible to apply for full membership of Engineers Australia. They are eligible to apply for Chartered Professional Engineering registration upon successful completion of required engineering practice period specified by Engineers Australia.

Admission

Recommended studies: Physics and HSC Mathematics extension 1 or HSC Mathematics Extension 2.

Assumed knowledge required: Two units of Science, two units of English and Mathematics (not General Mathematics) at Band 5 or higher.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International. International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Academic Course Advisor

Dr Xinqun Zhu is the Academic Course Advisor for Key Programs in Civil and Construction.

Dr Jamal Rizk is the Academic Course Advisor for Key Program in Electrical.

Dr Jonathan Vincent is the Academic Course Advisor for Key Programs in Mechanical and Robotics & Mechatronics.

Recommended Sequence

Qualification for this award requires the successful completion of 320 credit points which include the units listed in the recommended sequences below.

Full-time - Autumn intake

Year 1

Autumn session

All students undertaking the Bachelor of Engineering study at UWS are required to enroll in 300743 Mathematics for Engineers Preliminary and undertake a diagnostic test at the beginning of their study. The diagnostic test will be conducted at the beginning of the first semester of enrolment and the result will be used to determine whether a student will remain in 300743 Mathematics for Engineers Preliminary or be transferred by the School to 200237 Mathematics for Engineers 1. Students remaining in 300743 Mathematics for Engineers Preliminary will be required to complete 200237 Mathematics for Engineers 1 during second semester and be encouraged to complete 200238 Mathematics for Engineers 2 during the UWS Summer session.

200237.4	Mathematics for Engineers 1
300027.2	Engineering Computing
300963.1	Engineering Physics
300964.1	Introduction to Engineering Practice

Spring session

200238.2	Mathematics for Engineers 2
300021.2	Electrical Fundamentals
300463.2	Fundamentals of Mechanics
300965.1	Engineering Materials

Year 2 - Year 4

Students must then select one of the following key programs:

KT3113.1 Civil
KT3114.1 Construction
KT3115.1 Electrical
KT3116.1 Mechanical
KT3117.1 Robotics and Mechatronics

Bachelor of Engineering Advanced (Honours)

3690.2

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

The Bachelor of Engineering Advanced (Honours) is a four year honours degree program with common first year structure. The program has been designed to meet Engineers Australia professional accreditation requirements. Students have the opportunity to focus on a discipline area by selecting a key program in Civil, Construction, Electrical, Mechanical, and Robotic & Mechatronic engineering. In addition, students can specialise by selecting a sub-major from a wide range of recommended unit sets that will complement their chosen discipline. Honours class will be awarded at completion of four years of study, based on the overall academic performance during the study period. Students in this program will need to maintain at least credit average GPA throughout their study; those not meeting this academic performance requirement will be transferred to Bachelor of Engineering program.

Study Mode
Four years full-time study or part-time equivalent.

Location

Campus	Attendance	Mode
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal

Accreditation
Graduates of this program are eligible to apply for full membership of Engineers Australia. They are eligible to apply for Chartered Professional Engineering registration upon successful completion of required engineering practice period specified by Engineers Australia.

Admission
Recommended studies: Physics and HSC Mathematics Extension 1 or HSC Mathematics Extension 2.

Assumed knowledge required: Two units of Science, two units of English and Mathematics at Band 5 or higher.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Academic Course Advisor
Dr Xinqun Zhu is the Academic Course Advisor for Key Programs in Civil and Construction.

Dr Jamal Rizk is the Academic Course Advisor for Key Program in Electrical.

Dr Jonathan Vincent is the Academic Course Advisor for Key Programs in Mechanical and Robotics & Mechatronics.

Recommended Sequence
Qualification for this award requires the successful completion of 320 credit points which include the units listed in the recommended sequence below.

Full-time

Year 1

Autumn session

200237.4 Mathematics for Engineers 1
300027.2 Engineering Computing
300963.1 Engineering Physics
300964.1 Introduction to Engineering Practice

Spring session

200238.2 Mathematics for Engineers 2
300021.2 Electrical Fundamentals
300463.2 Fundamentals of Mechanics
300965.1 Engineering Materials

Year 2 - Year 4

Students must then select one of the following key programs:

KT3118.1 Civil
KT3119.1 Construction
KT3120.1 Electrical
KT3121.1 Mechanical
KT3122.1 Robotics and Mechatronics

Bachelor of Engineering Science

3691.2

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

The Bachelor of Engineering Science is a three year degree program with common first year structure. Students have the opportunity to focus on a discipline area by selecting a key program in Civil, Construction, Electrical, Mechanical, and Robotic & Mechatronic engineering. The program has been developed with the view of enabling graduates to practice as an engineering technologist in their chosen field. The three year Bachelor of Engineering Science program may be used as a pathway to the four year Bachelor of Engineering program that meet Engineers Australia professional accreditation requirements; an academic performance criteria will be the eligibility criteria for such transfer.

Study Mode

Three years full time or part-time equivalent.

Location

Campus	Attendance	Mode
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal

Admission

Recommended studies: Physics and HSC Mathematics.

Assumed Knowledge: Two units of Science, two units of English and Mathematics (not General Mathematics) at Band 4 or higher.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Academic Course Advisor

Dr Xinqun Zhu is the Academic Course Advisor for Key Programs in Civil and Construction.

Dr Jamal Rizk is the Academic Course Advisor for Key Program in Electrical.

Dr Jonathan Vincent is the Academic Course Advisor for Key Programs in Mechanical and Robotics & Mechatronics.

Recommended Sequence

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Full-time - Autumn Intake

Year 1

Autumn session

300743.2	Mathematics for Engineers Preliminary
300027.2	Engineering Computing
300963.1	Engineering Physics
300964.1	Introduction to Engineering Practice

Spring session

200237.4	Mathematics for Engineers 1
300021.2	Electrical Fundamentals
300463.2	Fundamentals of Mechanics
300965.1	Engineering Materials

Year 2 - Year 3

Students must then select one of the following key programs:

KT3123.1	Civil
KT3124.1	Construction
KT3125.1	Electrical
KT3126.1	Mechanical
KT3127.1	Robotics and Mechatronics

Bachelor of Industrial Design

3503.7

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course was 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

The industrial design program prepares students to be flexible and innovative, with emphasis on design, its place in and effect on society and people. The Bachelor of Industrial Design takes into account the rapid

transformation of communication and industrial technologies, and recognises the need for designers to resolve increasingly complex issues. The course provides students with the knowledge and skills to enable them to respond with flexibility to design challenges within human centred design context. The program is involved with a number of industry partners on research projects. It has also implemented an internship program in line with its commitment to producing industry ready graduates; students are required to undertake a period of industry placement before graduation. The program currently conforms streams in Design Management, Sustainable Design and Industrial Design Graphics (CAD/CAM, Rapid Prototyping and tooling), which allow students to develop specific areas within the discipline they find professionally most attractive. Sound knowledge of units in a broad range of design disciplines is provided, including design methodology, design innovation, human computer interaction, product design, ergonomics, manufacturing technology and design, aesthetics, management, 2D and 3D CAD, etc. The course culminates in a final year industrial design project leading to industry placement, Masters or PhD research. Common occupations are in technological innovation (i.e. electronic, construction and building, medical and scientific), durable and fast moving consumer goods (i.e. commercial and domestics appliances, white goods, food, tools, packaging), entertainment and games (i.e. games development, model making, film and animation), online and e-learning solutions (i.e. web design, e-commerce, flexible learning), and user centred design (i.e. GUI, HCI, HMI, visualization and simulation). Graduates are eligible for membership of the Design Institute of Australia (DIA).

Study Mode

Four years full-time. Reduced loads are available with consultation during Years 1 to 3 of the program.

Location

Campus	Attendance	Mode
Penrith Campus	Full Time	Internal

Accreditation

Graduates are eligible for membership of the Design Institute of Australia (DIA).

Admission

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 320 credit points which include the units listed in the recommended sequence below. To be eligible to graduate from this course, students are required to complete a sub-major. Refer to the 'note' after the sub-major listing, for further details.

Recommended Sequence

Full-time

Year 1

Autumn session

301030.1 Introduction to Industrial Design Methods
300016.2 Design Science
300776.2 Applied Ergonomics
200191.5 Fundamentals of Mathematics

Spring session

301036.1 Form and Production
300302.2 Industrial Graphics 1: Presentation
300304.3 Sustainable Design: Materials Technology
200083.2 Marketing Principles

Year 2

Autumn session

300305.3 Design Studio 1: Themes and Variations
300282.2 Industrial Graphics 2: Transition
300570.3 Human-Computer Interaction

Choose one of

One sub-major alternate unit

or one elective

Spring session

300308.3 Design Studio 2: The Design Proposal
300306.4 Sustainable Design: Sustainable Futures
300310.3 Industrial Graphics 3: 3D Solids

Choose one of

One sub-major alternate unit

or one elective

Year 3

Autumn session

300311.3 Design Studio 3: Product Realisation
300014.3 Design Management 3: Organisational Skills for Designers

Choose one of

Two sub-major alternate units

or two electives

Spring session

300313.3 Design Studio 4: Simulate to Innovate
300314.2 Designed Inquiry

Choose one of

Two sub-major alternate units

or two electives

Students enrolled in the 3503 - Bachelor of Industrial Design may exit the course with the 3502 - Bachelor of Design and Technology at the completion of Year 3.

Year 4

Coursework Stream

Autumn session

300459.2 Major Project Commencement

One alternate unit - selected based on final year theme/ issue in consultation with the Unit Coordinator.

Choose one of

300012.3 Design Management 1: Product Design Audit
300312.3 Industrial Graphics 4: Surface

Spring session

300460.2 Major Project Completion

Choose one of

300013.3 Design Management 2: Corporate Image and Identity
300015.3 Design Management 4: Design Process
300735.2 Automated Manufacturing

Industrial Experience

300775.2 Industrial Experience

Honours Stream

An Honours stream is offered - see the Honours in Bachelors Awards Policy and associated College Guidelines for the admission criteria.

Autumn session

300773.2 Industrial Design Project (Commencement)

One alternate unit - selected based on final year theme/ issue in consultation with the Unit Coordinator.

Spring session

300774.2 Industrial Design Project (Completion)

Industrial Experience

300775.2 Industrial Experience

Majors

M3087.1 Innovation Design Management
M3076.1 Interactive Industrial Graphics
M3077.1 International Design Management

Sub-majors

SM3061.1 Design Management
SM3059.1 Industrial Graphics
SM3060.1 Sustainable Design

Note: In addition to the sub-major streams/electives offered from within Industrial Design (as listed above) students may choose other sub-major streams/electives within the School of Computing, Engineering and Mathematics at the University of Western Sydney or other universities (as cross-institutional studies).

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Information and Communications Technology

3639.3

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2014 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

The Bachelor of Information and Communications Technology is a three year course accredited by the Australian Computer Society. It provides graduates with skills and knowledge in networking and IT applications development, along with the ability to apply practical ICT solutions in real-world situations. Units available offer a solid foundation across several domains including Networking, Databases, Systems Analysis & Design, Programming, Web and Mobile Technologies, Project Management, Professional Communications, Operating Systems and Human Computer Interaction. It also covers the necessary mathematical and statistical skills as needed by an ICT practitioner. The structure of the Course provides scope for electives, sub-majors or majors in further studies including the areas of Mobile Computing and Application Development, Entertainment Computing, Astroinformatics, Health Informatics, Social Media Analytics, Networking, Health Information Management, Mathematics, Statistics, Systems Security and IT Support. NB: Majors/ sub-majors may not be offered on all campuses.

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal

Campus	Attendance	Mode
Parramatta Campus	Full Time	Internal
Penrith Campus	Full Time	Internal

Accreditation

The Bachelor of Information and Communications Technology is accredited with the Australian Computer Society (ACS) at Professional level.

Admission

Assumed knowledge required: HSC Mathematics and any two units of HSC English

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English.

Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequence below.

Recommended Sequence

Full-time - Start Year Intake

Year 1

Autumn session

300580.2 Programming Fundamentals
100483.2 Principles of Professional Communication 1
300585.2 Systems Analysis and Design
300700.5 Statistical Decision Making

Spring session

300565.2 Computer Networking
300581.4 Programming Techniques
300104.4 Database Design and Development

And one elective

Year 2

Autumn session

300582.2 Technologies for Web Applications
300095.4 Computer Networks and Internets
300144.4 Object Oriented Analysis

And one elective

Spring session

300583.2 Web Systems Development
300958.1 Social Web Analytics

And two electives

Year 3

Autumn session

300570.3 Human-Computer Interaction
300578.3 Professional Development
300698.4 Operating Systems Programming

And one elective

Spring session

300579.5 Professional Experience

And three electives

Full-Time Mid Year Intake

Year 1

Spring session

300565.2 Computer Networking
300104.4 Database Design and Development
300700.5 Statistical Decision Making

Please Note: 300700 Statistical Decision Making is only offered in Autumn. Students in full time mid-year are required to enrol in the equivalent unit 200032 Statistics for Business.

And one elective

Autumn session

300580.2 Programming Fundamentals
300585.2 Systems Analysis and Design
300095.4 Computer Networks and Internets
100483.2 Principles of Professional Communication 1

Year 2

Spring session

300581.4 Programming Techniques
300958.1 Social Web Analytics

And two electives

Autumn session

300582.2 Technologies for Web Applications
300578.3 Professional Development
300144.4 Object Oriented Analysis
300570.3 Human-Computer Interaction

Year 3

Spring session

300583.2 Web Systems Development

And three electives

Autumn session

300579.5 Professional Experience
300698.4 Operating Systems Programming

And two electives

Electives for majors and sub-majors

Please note: Majors and sub-majors are optional.

Majors

M3068.1	Entertainment Computing
M3083.1	Health Informatics
M3054.1	Mathematics
M3074.1	Mobile Computing
M3070.1	Networking

Sub-majors

SM3080.1	Astroinformatics
SM3052.1	Entertainment Computing
SM3075.1	Health Information Applications
SM3076.1	Health Information Management
SM3054.1	IT Support
SM3025.1	Mathematics
SM3057.1	Mobile Computing
SM3055.1	Networking
SM3053.1	Social Media Analytics
SM3039.1	Statistics
SM3077.1	Systems Security
SM3056.1	Web Application Development (for Computing Students)

The following majors and sub-majors are only available to students enrolled in other UWS courses. Students in the Bachelor of Information and Communications Technology should choose from the list of optional majors and sub-majors above.

M3002.1	Information Technology
M3003.1	Web Systems Development
SM3078.1	Web Application Development (for Non-Computing Students)
SM3058.1	Mobile Application Development (for Non-Computing Students only)

Major and Sub-major elective spaces

Elective units may be used toward obtaining an additional approved major (80 credit points) or sub-major (40 credit points).

UWS offers majors and sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Information and Communications Technology (Advanced)

3684.2

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2014 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

The Bachelor of Information and Communications Technology (Advanced) is a challenging course that includes advanced coursework, extension project and basic research training. A mentoring program will link the student with experienced academic staff and research groups within UWS. This professional ICT course cultivates capable ICT graduates for the high end of ICT professions. This course provides graduates with a comprehensive skill set and knowledge base in networking and IT applications areas of ICT and the ability to apply practical solutions across ICT. It allows students to develop considerable skills in application development (including mobile app development), program design, systems analysis & design, networks, web-design, and the implementation of technology. These attributes can be conceptually grouped into the knowledge and skills necessary to:

The Bachelor of Information and Communications Technology (Advanced) is a three year ICT course with accreditation by the Australian Computer Society being sought. It provides a solid foundation in Networks, Databases, Systems Analysis & Design, Programming, Web Technologies, Project Management, Professional Communications and Operating Systems. It also covers the necessary mathematical and statistical skills, and basic research training as needed by a high end ICT practitioner.

Study Mode

Three years full time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Parramatta Campus	Full Time	Internal
Penrith Campus	Full Time	Internal

Accreditation

The Bachelor of Information and Communications Technology (Advanced) is accredited with the Australian Computer Society (ACS) at Professional level.

Admission

Assumed knowledge - HSC Mathematics and any two units of HSC English.

Minimum ATAR of 90. Students must maintain a Grade Point Average (GPA) greater than 5.0 to continue their enrolment in this course.

International applicants must have a overall IELTS score of 6.5 with a minimum 6.0 in each subtest

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Students within the Advanced degree are required to complete five (5) Advanced units.

Compulsory Advanced units

- 300903 Programming Techniques (Advanced)
- 300902 Web Systems Development (Advanced)
- 300900 Professional Experience (Advanced)

A further two units to be chosen from

- 300946 Computer Networking (Advanced)
- 300888 Object Oriented Analysis (Advanced)
- 300941 Database Design and Development (Advanced)
- 300901 Human-Computer Interaction (Advanced)
- 300943 Operating Systems Programming (Advanced)

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Year 1

Autumn session

300580.2 Programming Fundamentals
100483.2 Principles of Professional Communication 1
300585.2 Systems Analysis and Design
300700.5 Statistical Decision Making

Spring session

300903.1 Programming Techniques (Advanced)

Choose one of

300565.2 Computer Networking
300946.1 Computer Networking (Advanced)

Choose one of

300104.4 Database Design and Development
300941.1 Database Design and Development (Advanced)

And one elective

Year 2

Autumn session

300582.2 Technologies for Web Applications
300095.4 Computer Networks and Internets

Choose one of

300144.4 Object Oriented Analysis
300888.1 Object Oriented Analysis (Advanced)

And one elective

Spring session

300958.1 Social Web Analytics
300902.1 Web Systems Development (Advanced)

And two electives

Year 3

Autumn session

300578.3 Professional Development

Choose one of

300698.4 Operating Systems Programming
300943.1 Operating Systems Programming (Advanced)

Choose one of

300570.3 Human-Computer Interaction
300901.1 Human-Computer Interaction (Advanced)

And one elective

Spring session

300900.1 Professional Experience (Advanced)

And three electives

Majors and Sub-majors

All Majors and Sub-majors available to course 3639.3 - Bachelor of Information and Communications Technology are also available to those enrolled in course 3684.2 - Bachelor of Information and Communications Technology (Advanced).

Please see link below for Majors and Sub-majors available.

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

Students in Advanced courses may use elective units toward obtaining an additional approved sub-major in Applied Leadership or Critical Thinking.

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Information and Communications Technology (Honours)

3668.1

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2013 or later.

The Honours program encourages independence in learning and research; further develops academic ability, provides the opportunity to pursue undergraduate studies to a more advanced level, deepen intellectual understanding in the major field of study and develop research skills. Honours is a recognised point of entry into postgraduate research studies at PhD and Masters levels. If a career in industry is sought, Honours enables study to a more advanced level with a higher qualification. The course has the opportunity for direct commercial and industrial involvement with a diverse range of organisations through the provision and joint supervision of research projects.

Study Mode

One year full-time or two years part-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Campbelltown Campus	Part Time	Internal
Parramatta Campus	Full Time	Internal
Parramatta Campus	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal

Admission

Assumed Knowledge: Bachelor Degree

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International. International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 80 credit points including the units listed below.

Recommended Sequence

Year 1

Note: Students must enrol in 300363 and 300364 in both 1H and 2H sessions.

1H and 2H

300364.3 Computing Honours Seminar Program

1H and 2H

300363.3 Computing Honours Thesis

1H or 2H

Elective (Level 3 or above) – To be selected after discussion with student supervisor

Bachelor of Information and Communications Technology (Health Information Management)

3711.1

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

The increasing use of electronic health records requires the accurate and efficient capture, maintenance, security and reporting of health information and the Bachelor of Information Commnications Technology (Health Information Management) course will provide students with the knowledge and skills required to build software systems and undertake roles relating to the classification, coding and management of health information within a healthcare setting.

This Course will offer students the opportunity to seek employment in health information management and/or clinical coding, recognised as workforce skills shortage areas .Specific content areas addressed include Health Informatics, Systems Analysis and Design, Medical Terminology, Database Design and Development, Healthcare Data Environments, Clinical Classification and Coding, Programming, Web Development, Computer Networking, Health Service Management, Activity Based

Funding and Data Quality and Healthcare Software and Systems.

The course also offers direct industry experience via a 20 day work placement.

Study Mode

Three years full-time or six years part-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Multi Modal
Campbelltown Campus	Part Time	Multi Modal
Parramatta Campus	Full Time	Multi Modal
Parramatta Campus	Part Time	Multi Modal
Penrith Campus	Full Time	Multi Modal
Penrith Campus	Part Time	Multi Modal

Accreditation

The Bachelor of Information and Communications Technology (Health Information Management) is accredited with the Australian Computer Society (ACS) at Professional level. Applications for accreditation by the Health Information Management Association of Australia (HIMAA) will be submitted in 2015. Successful certification will see graduates eligible for professional accreditation status with both bodies.

Admission

Applicants may be regarded as eligible for admission if they have completed the NSW HSC and attained the required ATAR (Australian Tertiary Admission Rank), or have completed other equivalent qualifications such as a recognised Diploma or Advanced Diploma.

Recognition of prior learning may be considered for applicants with Certificate III or Certificate IV in conjunction with relevant industry experience.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International. International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequence below.

Recommended Sequence

Year 1

Autumn session

300580.2 Programming Fundamentals
100483.2 Principles of Professional Communication 1
300585.2 Systems Analysis and Design
300700.5 Statistical Decision Making

Spring session

300565.2 Computer Networking
300581.4 Programming Techniques
300104.4 Database Design and Development
300566.2 Introduction to Health Informatics

Year 2

Autumn session

300582.2 Technologies for Web Applications
300095.4 Computer Networks and Internets
300144.4 Object Oriented Analysis
300955.1 Healthcare Data Environments

Spring session

300583.2 Web Systems Development
300958.1 Social Web Analytics
300950.2 Fundamentals of Medicine and Medical Terminology
400277.4 Health Services Management

Year 3

Autumn session

300570.3 Human-Computer Interaction
300578.3 Professional Development
300951.2 Clinical Classification and Coding
400787.2 Health Services Management Practice

Spring session

300579.5 Professional Experience
300956.1 Healthcare Software and Systems
300953.1 Advanced Clinical Classification
300954.1 Activity Based Funding/Casemix and Data Quality

Bachelor of Information and Communications Technology/Bachelor of Arts

3654.3

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2014 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This double degree program is designed in recognition of the globalising nature of the information technology industry. In addition to providing a strong technical background in IT, the course also provides students the necessary knowledge in majors in the Bachelor of Arts (BA): International Relations and Asian Studies; Cultural and Social Analysis; English; History and Political Thought; Philosophy; Chinese; Japanese, Arabic and Indonesian.

In the IT area, the program allows students to develop skills in application development, program design, systems analysis and design, networks, web-design, and the implementation of technology.

Study Mode

Four years full-time.

Location

Campus	Attendance	Mode
Parramatta Campus	Full Time	Internal

Accreditation

The Bachelor of Information and Communications Technology is currently accredited with the Australian Computer Society (ACS) at Professional level.

Admission

Assumed knowledge required: HSC Mathematics and any two units of HSC English.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English.

Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 320 credit points as specified in the structure below.

Students who complete this award will graduate with a Bachelor of Information and Communications Technology and a Bachelor of Arts.

The conceptual design of this BICT/BA double degree is as follows.

In Years 1 to 3 students will complete 160cp of Bachelor of Information and Communications Technology units as listed in the course structure below.

In Years 1 to 4 they will complete the 4 BA core units, an 8 unit BA major and a 4 unit BA sub-major from the majors and sub-majors in the Bachelor of Arts as offered on Parramatta campus only.

BA Majors

- M1059 Arabic
- M1060 Chinese
- M1052 Cultural and Social Analysis
- M1053 English
- M1054 History and Political Thought
- M1093 Indonesian
- M1055 International Relations and Asian Studies
- M1062 Japanese
- M1058 Philosphy

BA Sub-majors

- SM1077 Arabic
- SM1078 Chinese
- SM1070 Cultural and Social Analysis
- SM1071 English
- SM1072 History and Political Thought
- SM1112 Indonesian
- SM1073 International Relations and Asian Studies
- SM1080 Japanese
- SM1076 Philosophy

Arts Units

For details of the relevant Arts units, refer to the current listing of Bachelor of Arts, course code 1706.

Year 1

Autumn session

300580.2 Programming Fundamentals
100483.2 Principles of Professional Communication 1
300585.2 Systems Analysis and Design
300700.5 Statistical Decision Making

Spring session

300565.2 Computer Networking
300581.4 Programming Techniques
300104.4 Database Design and Development

BA Core unit

Year 2

Autumn session

300582.2 Technologies for Web Applications
300144.4 Object Oriented Analysis
300095.4 Computer Networks and Internets

BA Core unit

Spring session

300583.2 Web Systems Development
300958.1 Social Web Analytics

BA Core unit
BA Major unit

Year 3

Autumn session

300570.3 Human-Computer Interaction
300578.3 Professional Development
300698.4 Operating Systems Programming

BA Core unit

Spring session

300579.5 Professional Experience

BA Major unit
BA Major unit
BA Sub-major unit

Year 4

Autumn session

BA Major unit
BA Major unit
BA Sub-major unit
BA Sub-major unit

Spring session

BA Major unit
BA Major unit

BA Major unit
BA Sub-major unit

Bachelor of Information and Communications Technology/Bachelor of Business and Commerce

3655.5

Students should follow the course structure for the course version relevant to the year they commenced. This course version applies to students who commenced study in this course in 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This double degree program targets the wide application of information technology in Business and Commerce. It provides students with a strong technical background in IT and Business and Commerce. It allows students to develop skills in application development, program design, systems analysis & design, networks, web-design, and the implementation of technology.

This degree combines information technology with one of six Majors in

Study Mode

Four years full-time.

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Campbelltown Campus	Full Time	Internal
Parramatta Campus	Full Time	Internal

Accreditation

The Bachelor of Information and Communications Technology is currently accredited with the Australian Computer Society (ACS) at Professional level. Accreditation is held with the Australian Human Resource Institute (AHRI) for students completing the Bachelor of Business and Commerce (Human Resource Management) major.

Admission

Eligibility for admission to the Bachelor of Information and Communications Technology/Bachelor of Business and Commerce is based on the following requirements:

Assumed knowledge required: HSC Mathematics and two units of HSC English.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying

directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 320 credit points as per the structure below.

Students are eligible to graduate with a Bachelor of Information and Communications Technology, on completion of all the 24 units listed in the first three years of the relevant sequence below.

The conceptual design of this Bachelor of Information and Communications Technology/Bachelor of Business and Commerce double degree is as follows.

1) Years 1 to 3 students complete their BICT (16 units) and two elective units;

2) Also, in Years 1 to 3 students complete five common BBC core units and one BBC Major unit. Students may also elect to take two alternate BBC units in Year 1 which will be deemed equivalent to two BICT units. In Year 4 they complete eight BBC Major units.

3) Students within this course will only be permitted to undertake the following majors within 2753 Bachelor Business and Commerce.

*MT2011 Applied Finance

*MT2002 Hospitality Management

*MT2012 Human Resource Management

*MT2013 Management

*MT2006 Marketing

*MT2008 Sport Management

Please note that the Applied Finance major is only offered at Parramatta campus only.

Bachelor of Information and Communications Technology/ Bachelor of Business and Commerce (Applied Finance)

Parramatta campus

Year 1

Autumn session

300585.2 Systems Analysis and Design
300580.2 Programming Fundamentals

Choose one of

200336.4 Business Academic Skills
100483.2 Principles of Professional Communication 1

Choose one of

300700.5 Statistical Decision Making
200032.5 Statistics for Business

Spring session

200083.2 Marketing Principles
300565.2 Computer Networking
300104.4 Database Design and Development
300581.4 Programming Techniques

Year 2

Autumn session

200571.4 Management Dynamics
300582.2 Technologies for Web Applications
300095.4 Computer Networks and Internets
300144.4 Object Oriented Analysis

Spring session

300583.2 Web Systems Development
300958.1 Social Web Analytics
200184.3 Introduction to Business Law
200525.3 Principles of Economics

Year 3

Autumn session

300570.3 Human-Computer Interaction
300578.3 Professional Development
300698.4 Operating Systems Programming
200101.4 Accounting Information for Managers

Spring session

300579.5 Professional Experience
200488.3 Corporate Financial Management

And two electives

Year 4

Autumn session

200048.2 Financial Institutions and Markets
200537.4 Economics and Finance Engagement Project
200818.1 Bank Management
200055.4 International Finance

Spring session

200815.1 Globalisation and Sustainability
200053.3 Economic Modelling
200819.1 Investment Management
200079.3 Derivatives

Bachelor of Information and Communications Technology/ Bachelor of Business and Commerce (Hospitality Management)

Parramatta campus

Year 1

Autumn session

300585.2 Systems Analysis and Design

300580.2 Programming Fundamentals

Choose one of

200336.4 Business Academic Skills
100483.2 Principles of Professional Communication 1

Choose one of

200032.5 Statistics for Business
300700.5 Statistical Decision Making

Spring session

200083.2 Marketing Principles
300565.2 Computer Networking
300104.4 Database Design and Development
300581.4 Programming Techniques

Year 2

Autumn session

200571.4 Management Dynamics
300582.2 Technologies for Web Applications
300095.4 Computer Networks and Internets
300144.4 Object Oriented Analysis

Spring session

300583.2 Web Systems Development
300958.1 Social Web Analytics
200184.3 Introduction to Business Law
200525.3 Principles of Economics

Year 3

Autumn session

300570.3 Human-Computer Interaction
300578.3 Professional Development
300698.4 Operating Systems Programming
200273.4 Managing Service and Experience

Spring session

300579.5 Professional Experience
200101.4 Accounting Information for Managers

And two electives

Year 4

Autumn session

200709.2 Managing the Accommodation Experience
200710.3 Managing the Food and Beverage Experience
200708.2 Hospitality Industry
200707.2 Service Industry Studies

Spring session

200584.3 Hospitality Management Operations
200742.2 Sport and Hospitality Event Management
200148.2 Planning and Design of Hospitality Facilities
200561.3 Hospitality Management Applied Project

Bachelor of Information and Communications Technology/ Bachelor of Business and Commerce (Human Resource Management)

Parramatta and Campbelltown campus

Year 1

Autumn session

300580.2 Programming Fundamentals
300585.2 Systems Analysis and Design

Choose one of

200336.4 Business Academic Skills
100483.2 Principles of Professional Communication 1

Choose one of

300700.5 Statistical Decision Making
200032.5 Statistics for Business

Spring session

200083.2 Marketing Principles
300565.2 Computer Networking
300104.4 Database Design and Development
300581.4 Programming Techniques

Year 2

Autumn session

200571.4 Management Dynamics
300582.2 Technologies for Web Applications
300095.4 Computer Networks and Internets
300144.4 Object Oriented Analysis

Spring session

300583.2 Web Systems Development
300958.1 Social Web Analytics
200184.3 Introduction to Business Law
200525.3 Principles of Economics

Year 3

Autumn session

300570.3 Human-Computer Interaction
300578.3 Professional Development
300698.4 Operating Systems Programming
200101.4 Accounting Information for Managers

Spring session

300579.5 Professional Experience
200300.2 Managing People at Work

And two electives

Year 4

Autumn session

200614.2 Enterprise Industrial Relations
200621.3 International Human Resource Management
200860.1 People, Work and Society

200613.2 Negotiation, Bargaining and Advocacy

Spring session

200739.2 Reward and Performance Management
200740.3 Human Resource and Industrial Relations Strategy
200575.3 Processes and Evaluation in Employment Relations
200859.1 Human Resource Development

Bachelor of Information and Communications Technology/ Bachelor of Business and Commerce (Management)

Bankstown, Parramatta and Campbelltown campus

Year 1

Autumn session

300580.2 Programming Fundamentals
300585.2 Systems Analysis and Design

Choose one of

200336.4 Business Academic Skills
100483.2 Principles of Professional Communication 1

Choose one of

200032.5 Statistics for Business
300700.5 Statistical Decision Making

Spring session

200083.2 Marketing Principles
300565.2 Computer Networking
300104.4 Database Design and Development
300581.4 Programming Techniques

Year 2

Autumn session

200571.4 Management Dynamics
300582.2 Technologies for Web Applications
300095.4 Computer Networks and Internets
300144.4 Object Oriented Analysis

Spring session

300583.2 Web Systems Development
300958.1 Social Web Analytics
200184.3 Introduction to Business Law
200525.3 Principles of Economics

Year 3

Autumn session

300570.3 Human-Computer Interaction
300578.3 Professional Development
300698.4 Operating Systems Programming
200101.4 Accounting Information for Managers

Spring session

300579.5 Professional Experience
200585.3 Organisational Behaviour

And two electives

Year 4

Autumn session

200158.4 Business, Society and Policy
200864.1 Managing in the Global Environment
200862.1 Creating Change and Innovation
200863.1 Leadership and Entrepreneurship

Spring session

200865.1 Managing Operations
200157.3 Organisational Learning and Development
200568.3 Contemporary Management Issues
200587.2 Strategic Management

Bachelor of Information and Communications Technology/ Bachelor of Business and Commerce (Marketing)

Bankstown, Parramatta and Campbelltown campus

Year 1

Autumn session

300580.2 Programming Fundamentals
300585.2 Systems Analysis and Design

Choose one of

200336.4 Business Academic Skills
100483.2 Principles of Professional Communication 1

Choose one of

200032.5 Statistics for Business
300700.5 Statistical Decision Making

Spring session

200083.2 Marketing Principles
300565.2 Computer Networking
300104.4 Database Design and Development
300581.4 Programming Techniques

Year 2

Autumn session

200571.4 Management Dynamics
300582.2 Technologies for Web Applications
300095.4 Computer Networks and Internets
300144.4 Object Oriented Analysis

Spring session

300583.2 Web Systems Development
300958.1 Social Web Analytics
200184.3 Introduction to Business Law
200525.3 Principles of Economics

Year 3

Autumn session

300570.3 Human-Computer Interaction
300578.3 Professional Development
300698.4 Operating Systems Programming
200101.4 Accounting Information for Managers

Spring session

300579.5 Professional Experience
200084.2 Consumer Behaviour

And two electives

Year 4

Autumn session

200086.3 Marketing Communications
200592.2 Marketing Research
200087.3 Strategic Marketing Management
200094.3 International Marketing

Spring session

200090.3 Marketing of Services
200088.3 Brand and Product Management
200091.3 Business to Business Marketing
200096.3 Marketing Planning Project

Bachelor of Information and Communications Technology/ Bachelor of Business and Commerce (Sport Management)

Parramatta and Campbelltown campus

Year 1

Autumn session

300585.2 Systems Analysis and Design
300580.2 Programming Fundamentals

Choose one of

200336.4 Business Academic Skills
100483.2 Principles of Professional Communication 1

Choose one of

300700.5 Statistical Decision Making
200032.5 Statistics for Business

Spring session

200083.2 Marketing Principles
300565.2 Computer Networking
300104.4 Database Design and Development
300581.4 Programming Techniques

Year 2

Autumn session

200571.4 Management Dynamics
300582.2 Technologies for Web Applications

300095.4 Computer Networks and Internets
300144.4 Object Oriented Analysis

Spring session

300583.2 Web Systems Development
300958.1 Social Web Analytics
200184.3 Introduction to Business Law
200525.3 Principles of Economics

Year 3

Autumn session

300570.3 Human-Computer Interaction
300578.3 Professional Development
300698.4 Operating Systems Programming
200705.2 The World of Sport Management

Spring session

300579.5 Professional Experience
200101.4 Accounting Information for Managers

And two electives

Year 4

Autumn session

200665.2 Strategic Communication in Sport
200273.4 Managing Service and Experience
200754.2 Sports Management - Planning and Development
200707.2 Service Industry Studies

Spring session

200664.2 Sport Management Internship
200742.2 Sport and Hospitality Event Management
200751.2 Sport Management Applied Project
400335.3 Contemporary Issues in Sport Management

Bachelor of Information and Communications Technology/Bachelor of Business and Commerce (Accounting)

3656.3

Students should follow the course structure for the course version relevant to the year they commenced. This course version applies to students who commenced study in this course in 2014 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This double degree program targets the wide application of information technology in Business and Commerce in Accounting. It provides students with a strong technical background in IT and Business and Commerce in Accounting. It allows students to develop skills in application development, program design, systems analysis

& design, networks, web-design, and the implementation of technology.

This degree combines information technology with knowledge required by professional Accountants.

Study Mode

Four years full-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Parramatta Campus	Full Time	Internal

Accreditation

The Bachelor of Information and Communications Technology is accredited with the Australian Computer Society (ACS) at Professional level. The Bachelor of Business and Commerce (Accounting) has accreditation with CPA Australia and The Institute of Chartered Accountants in Australia.

Inherent requirements

There are inherent requirements for this course that you must meet in order to complete your course and graduate. Make sure you read and understand the requirements for this course online.

Admission

Eligibility for admission to the Bachelor of Information and Communications Technology/Bachelor of Business and Commerce (Accounting) is based on the following requirements:

HSC Mathematics and any two units of HSC English.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 320 credit points as per the structure below.

Students are eligible to graduate with a Bachelor of Information and Communications Technology, on completion of all the 24 units listed in the first three years of the relevant sequence below.

The conceptual design of this Bachelor of Information and Communications Technology/Bachelor of Business and Commerce (Accounting) double degree is as follows.

1) Years 1 to 3 students complete their Bachelor of Information and Communications Technology (16 units);

2) Also, in Years 1 to 3 students complete two common core units of the Bachelor of Business and Commerce and six of the Bachelor of Business and Commerce Accounting Major units. Students may also elect to take two alternate Bachelor of Business and Commerce units (as suggested in the course document) in Year 1 which will be deemed equivalent to two Bachelor of Information and Communications Technology units. In Year 4 they complete three Bachelor of Business and Commerce common core units and five Bachelor of Business and Commerce Accounting Major units.

Year 1

Autumn session

300580.2 Programming Fundamentals
300585.2 Systems Analysis and Design

Choose one of

100483.2 Principles of Professional Communication 1
200336.4 Business Academic Skills

Choose one of

300700.5 Statistical Decision Making
200032.5 Statistics for Business

Spring session

300565.2 Computer Networking
300104.4 Database Design and Development
200101.4 Accounting Information for Managers
300581.4 Programming Techniques

Year 2

Autumn session

300582.2 Technologies for Web Applications
300095.4 Computer Networks and Internets
200111.2 Financial Accounting Applications
300144.4 Object Oriented Analysis

Spring session

300583.2 Web Systems Development
300958.1 Social Web Analytics
200116.4 Management Accounting Fundamentals
200488.3 Corporate Financial Management

Year 3

Autumn session

300570.3 Human-Computer Interaction
300578.3 Professional Development
300698.4 Operating Systems Programming
200536.3 Intermediate Financial Accounting

Spring session

300579.5 Professional Experience
200534.3 Accounting Information Systems
200109.4 Corporate Accounting Systems
200184.3 Introduction to Business Law

Year 4

Autumn session

200108.2 Contemporary Management Accounting
200183.4 Law of Business Organisations
200571.4 Management Dynamics
200525.3 Principles of Economics

Spring session

200083.2 Marketing Principles
200267.2 Advanced Accounting
200118.3 The Accountant as a Consultant
200535.2 Auditing and Assurance Services

Note: Students who successfully complete the BBC (Accounting) component of the degree may apply for membership of CPA Australia. Applicants for membership of CPA Australia have the option of either completing Taxation Law with an accredited Higher Education Provider OR in the CPA Program.

Bachelor of Information Systems

3687.1

This course replaces 3633.2 Bachelor of Computing from 2014.

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course was 2014 or later.

Today, practising professionals need to not only have knowledge and skills in computing, they also need to understand the context in which computer technology is applied in society, and be able to work collaboratively with people in all sorts of professions and industries. The Bachelor Information Systems degree integrates closely the applications of computing and information systems in a global business environment. You will work with organisations to design, develop, deploy and manage information systems through the application of computing technology. This course will help you carry out a real-life project where you will need to demonstrate you can design and develop an information system that solves a community-based problem.

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Parramatta Campus	Full Time	Internal

Accreditation

The Bachelor of Information Systems is accredited with the Australian Computer Society (ACS) at Professional Level.

Admission

Assumed Knowledge: HSC Mathematics and any two units of HSC English.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Full-time - Start Year Intake

Year 1

Autumn session

300580.2 Programming Fundamentals
100483.2 Principles of Professional Communication 1
300585.2 Systems Analysis and Design
300573.2 Information Systems in Context

Spring session

300565.2 Computer Networking
300104.4 Database Design and Development
200032.5 Statistics for Business

And one elective

Year 2

Autumn session

300582.2 Technologies for Web Applications
300570.3 Human-Computer Interaction

And two electives

Spring session

300569.2 Computer Security

300572.2 Information Systems Deployment and Management
300960.3 Mobile Applications Development

And one elective

Year 3

Autumn session

300578.3 Professional Development
300584.4 Emerging Trends in Information Systems

And two electives

Spring session

300579.5 Professional Experience
300961.2 Social Computing

And two electives

Full-time - Mid Year Intake

Year 1

Spring session

300565.2 Computer Networking
300104.4 Database Design and Development
300573.2 Information Systems in Context
200032.5 Statistics for Business

Autumn session

300580.2 Programming Fundamentals
100483.2 Principles of Professional Communication 1
300585.2 Systems Analysis and Design

And one elective

Year 2

Spring session

300569.2 Computer Security
300572.2 Information Systems Deployment and Management

And two electives

Autumn session

300582.2 Technologies for Web Applications
300570.3 Human-Computer Interaction

And two electives

Year 3

Spring session

300961.2 Social Computing
300960.3 Mobile Applications Development

And two electives

Autumn session

300579.5 Professional Experience
300578.3 Professional Development
300584.4 Emerging Trends in Information Systems

And one elective

Full-time - Accelerated Pathway

Start Year 2.5 Year Accelerated Pathway with Summer sessions

Year 1

Autumn session

300580.2 Programming Fundamentals
100483.2 Principles of Professional Communication 1
300585.2 Systems Analysis and Design

And one elective

Spring session

300565.2 Computer Networking
300573.2 Information Systems in Context

And two electives

Summer A session

300570.3 Human-Computer Interaction
300104.4 Database Design and Development

Year 2

Autumn session

300582.2 Technologies for Web Applications
200032.5 Statistics for Business

And two electives

Spring session

300569.2 Computer Security
300572.2 Information Systems Deployment and Management
300960.3 Mobile Applications Development
300961.1 Social Computing

Summer A session

300578.3 Professional Development

And one elective

Year 3

Autumn session

300584.4 Emerging Trends in Information Systems
300579.5 Professional Experience

And two electives

Full-time - Accelerated Pathway

Early Start 2.5 Year Accelerated Pathway with Summer sessions

Year 1

Summer A session

200032.5 Statistics for Business

300104.4 Database Design and Development

Autumn session

300580.2 Programming Fundamentals
100483.2 Principles of Professional Communication 1
300585.2 Systems Analysis and Design
300573.2 Information Systems in Context

Spring session

300565.2 Computer Networking
300572.2 Information Systems Deployment and Management

And two electives

Year 2

Summer A session

300570.3 Human-Computer Interaction

And one elective

Autumn session

300582.2 Technologies for Web Applications

And three electives

Spring session

300569.2 Computer Security
300960.3 Mobile Applications Development
300961.2 Social Computing

And one elective

Year 3

Summer A session

300578.3 Professional Development

And one elective

Autumn session

300579.5 Professional Experience
300584.4 Emerging Trends in Information Systems

Suggested Majors and Sub-majors

Majors

M3068.1 Entertainment Computing
M3083.1 Health Informatics
M3070.1 Networking
M3074.1 Mobile Computing
M3054.1 Mathematics

Sub-major elective spaces

SM3001.1 Systems Administration
SM3077.1 Systems Security
SM3006.1 Web Application Development (for Computing Students)
SM3057.1 Mobile Computing
SM3055.1 Networking
SM3075.1 Health Information Applications
SM3076.1 Health Information Management
SM3052.1 Entertainment Computing
SM3053.1 Social Media Analytics
SM3025.1 Mathematics
SM3039.1 Statistics

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Information Systems Advanced

3688.1

This course replaces 3685.1 Bachelor of Computing (Information Systems) Advanced from 2014

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course was 2014 or later.

This degree focuses on computing and information technology in the context of business. In addition to the generic content described for Bachelor of Information Systems, this course utilises advanced activities, extension projects, research training and hands on work on real business projects.

During this program you will have a mentor who will support and guide you throughout the degree. This program will also link you with experienced academic staff and industry partners who will provide you with continuous training and supervision. In addition you will be invited to join research groups which will allow you to take part in large research projects.

Study Mode
Three years full-time.

Location

Campus	Attendance	Mode
Parramatta Campus	Full Time	Internal

Accreditation
The Bachelor of Information Systems Advanced is accredited with the Australian Computer Society (ACS) at Professional Level.

Admission
Assumed Knowledge: HSC Mathematics and any two units of HSC English

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

International applicants must apply directly to the University of Western Sydney via UWS International.

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of

minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Students within the Advanced degree are required to complete five Advanced units.

Compulsory Advanced units

- 300942.1 Emerging Trends in Information Systems (Advanced)
- 300900.1 Professional Experience (Advanced)

A further three units to be chosen from

- 300946.1 Computer Networking (Advanced)
- 300941.1 Database Design and Development (Advanced)
- 300901.1 Human-Computer Interaction (Advanced)
- 300903.1 Programming Techniques (Advanced)
- 300902.1 Web Systems Development (Advanced)

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Full-time - Start Year Intake

Year 1

Autumn session

300580.2 Programming Fundamentals
100483.2 Principles of Professional Communication 1
300585.2 Systems Analysis and Design
300573.2 Information Systems in Context

Spring session

200032.5 Statistics for Business

Choose one of

300565.2 Computer Networking
300946.1 Computer Networking (Advanced)

Choose one of

300104.4 Database Design and Development
300941.1 Database Design and Development (Advanced)

And one elective

Year 2

Autumn session

300582.2 Technologies for Web Applications

Choose one of

300570.3 Human-Computer Interaction
300901.1 Human-Computer Interaction (Advanced)

And two electives

Spring session

300569.2 Computer Security
300572.2 Information Systems Deployment and Management
300960.3 Mobile Applications Development

And one elective

Year 3

Autumn session

300578.3 Professional Development
300942.2 Emerging Trends in Information Systems (Advanced)

And two electives

Spring session

300900.1 Professional Experience (Advanced)
300961.2 Social Computing

And two electives

Full-time - Mid Year Intake

Year 1

Spring session

300573.2 Information Systems in Context
200032.5 Statistics for Business
300580.2 Programming Fundamentals

And one elective

Autumn session

100483.2 Principles of Professional Communication 1
300585.2 Systems Analysis and Design

And two electives

Year 2

Spring session

300569.2 Computer Security
300572.2 Information Systems Deployment and Management

Choose one of

300104.4 Database Design and Development
300941.1 Database Design and Development (Advanced)

Choose one of

300565.2 Computing Networking
300946.1 Computing Networking (Advanced)

Autumn session

300582.2 Technologies for Web Applications

Choose one of

300570.3 Human-Computer Interaction
300901.1 Human-Computer Interaction (Advanced)

And two electives

Year 3

Spring session

300961.2 Social Computing
300960.3 Mobile Applications Development

And two electives

Autumn session

300900.1 Professional Experience (Advanced)
300578.3 Professional Development
300942.2 Emerging Trends in Information Systems (Advanced)

And one elective

Majors

Students please be advised that all Majors and submajors available to course 3687.1 - Bachelor of Information Systems are also available to those enrolled in course 3688.1 - Bachelor of Information Systems Advanced.

Please see link below for Majors and submajors available.

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

Students in Advanced courses may use elective units toward obtaining an additional approved sub-major in Applied Leadership or Critical Thinking.

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Information Systems (Honours)

3696.1

This course replaces course 3588 - Bachelor of Computing (Honours) from 2H 2014.

The Honours program encourages independence in learning and research; further develops academic ability, provides the opportunity to pursue undergraduate studies to a more advanced level, deepen intellectual understanding in the major field of study and develop research skills. Honours is a recognised point of entry into postgraduate research studies at PhD and Masters levels. If a career in industry is sought, Honours enables study to a more advanced level with a higher qualification. The course has the opportunity for direct commercial and industrial involvement with a diverse range of organisations through the provision and joint supervision of research projects.

Study Mode

One year full-time or two years part-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Campbelltown Campus	Part Time	Internal
Parramatta Campus	Full Time	Internal
Parramatta Campus	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal

Accreditation

Professional accreditation by the Australian Computer Society may be available, depending on a student's undergraduate degree.

Admission

Assumed knowledge: Bachelor Degree

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International. International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 80 credit points including the units listed below.

Recommended Sequence

Year 1

Note: Students must enrol in 300363 and 300364 in both 1H and 2H sessions.

1H and 2H

300364.3 Computing Honours Seminar Program

1H and 2H

300363.3 Computing Honours Thesis

1H or 2H

Elective (Level 3 or above) – To be selected after discussion with student supervisor

Bachelor of Science (Honours) Mathematics

2711.1

The honours program encourages independence in learning and research, further develops academic ability, provides the opportunity to pursue undergraduate studies to a more advanced level, deepen intellectual understanding in the major field of study and develop research skills. An Honours degree is a recognised point of entry into postgraduate research studies at PhD level. If a career in industry is sought, Honours enables study to a more advanced level with a higher qualification. The course has the opportunity for direct commercial and industrial involvement with a diverse range of organisations through the provision of and joint supervision of research projects.

Study Mode

One year full-time or two years part-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Campbelltown Campus	Part Time	Internal
Parramatta Campus	Full Time	Internal
Parramatta Campus	Part Time	Internal

Admission

Admission requirements follow the recommendations and guidelines in the UWS Honours Policy. The basic requirement is completion of a bachelors pass degree in which the advanced level units in a relevant field of study were completed at a grade point average of 5.0 or better.

Course Structure

Qualification for this award requires the successful completion of 80 credit points which includes three core units made up of an advanced topic unit in mathematics, a research proposal and seminar plus a thesis in mathematics.

Core Units

200411.2 Advanced Topics in Mathematics
200412.5 Research Proposal and Seminar
200413.3 Mathematics Honours Thesis

Associate Degree in Engineering

7022.2

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2014 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

The Associate Degree in Engineering is a two year program in Engineering designed for people who are currently working in engineering or related areas with a trade or Certificate IV qualification or higher who wish to upgrade their qualifications in Engineering and possibly continue to the full degree program.

The Associate Degree in Engineering has a common first year program for all engineering disciplines, exposing students to a wide range of experiences in the first year. In the second year students may choose units from the elective pool that will allow them to follow their interests in the various Engineering disciplines. If students choose to apply to study in the Bachelor of Engineering after graduating from the Associate Degree in Engineering they will have completed at least 12 units in eight of the current key programs.

For more information on UWSCollege, please refer to the UWS College web site.

Study Mode

Two years full-time or four years part-time.

Admission

Applicants may be regarded as eligible for admission if they have completed the NSW HSC and attained the required ATAR (Australian Tertiary Admission Rank), or have completed other equivalent qualifications such as a recognised Certificate III or Certificate IV and vocational experience and attained the required entrance standard set for entry to the course. This may include bridging/ preparatory courses, para-professional and other post-secondary qualifications.

Admission to the Associate Degree in Engineering also requires an applicant to have relevant industry experience (5 years) or be a member in a suitable traineeship program.

Course Structure

Core Units

700112.1 Fundamentals for Engineering Studies (UWSC Assoc Deg)
700106.1 Engineering Computing (UWSC Assoc Deg)
700114.1 Introduction to Engineering Business Management (UWSC Assoc Deg)
700149.1 Introduction to Engineering Practice (UWSC Assoc Deg)

700103.1 Mathematics for Engineers Preliminary (UWSC Assoc Deg)
700109.1 Engineering Management for Engineer Associates (UWSC Assoc Deg)
700113.1 Fundamentals of Mechanics (UWSC Assoc Deg)
700147.1 Engineering Materials (UWSC Assoc Deg)
700101.1 Mathematics for Engineers 1 (UWSC Assoc Deg)
700153.1 Engineering Physics (UWSC Assoc Deg)
700118.1 Professional Practice for Engineer Associates (UWSC Assoc Deg)
700104.1 Electrical Fundamentals (UWSC Assoc Deg)
700110.1 Engineering Project (UWSC Assoc Deg)

plus three alternate units

Alternate Units

700116.1 Mechanics of Materials (UWSC Assoc Deg)
700102.1 Mathematics for Engineers 2 (UWSC Assoc Deg)
700120.1 Surveying for Engineers (UWSC Assoc Deg)
700111.1 Fluid Mechanics (UWSC Assoc Deg)
700119.1 Soil Engineering (UWSC Assoc Deg)
700115.1 Introduction to Structural Engineering (UWSC Assoc Deg)

Bachelor of Construction Management (UWSC First Year Program)

7042.2

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

The program is designed to provide students with the first year units included in the B Construction Management degree. It presents students with a range of units covering the science, building and management aspects of construction management and aims to produce students who are fully prepared for study beyond the first year of the B Construction Management degree. It is delivered in a smaller, more supportive learning environment than usually found in first year undergraduate programs. Students who successfully complete this course will articulate into B Construction Management degree at UWS with up to one year equivalent of advanced standing.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode

One year full-time (three semesters) or two years part-time (six semesters).

Location

Campus	Attendance	Mode
UWSC - Nirimba Education Precinct	Full Time	Internal

Admission

The aim of the course is to prepare students for tertiary study in Construction Management. The Diploma is accredited by the University, as principal, to enable its agent, UWSCollege, to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students entering this Diploma are required to have

- Completed an English unit in the NSW Higher School Certificate, or
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) or
- Passed the UWSCollege English test at IELTS 6.0 equivalent or
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Students are also assumed to have background in Mathematics at a senior high school level and assumed background in Science knowledge, preferably in Physics

Met other entry requirements such as

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Construction Management), or
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher

Course Structure

Students must pass the following units

700126.1 Design Science (UWSC)
700150.1 Graphic Communication and Design (UWSC)
700154.1 Professional Competencies (UWSC)
700070.1 Building 1 (UWSC)
700071.1 Building 2 (UWSC)
700003.3 Management Dynamics (UWSC)
700004.2 Introduction to Business Law (UWSC)
700005.2 Accounting Information for Managers (UWSC)

Students must pass the following preparatory level units for which no advanced standing will be granted in the UWS degree program:

700144.1 Foundation Physics 1 (UWSCFS)
700056.2 Academic English (UWSCFS)

Students must also pass with a Satisfactory grade the following non-award unit, which does not count for credit towards the Diploma:

700167.1 Tertiary Study Skills in Construction Management (UWSC)

Bachelor of Construction Management Extended (UWSC First Year Program)

7081.1

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

The program is designed to provide students with the first year units included in the Bachelor of Construction Management degree. It presents students with a range of units covering the science, building and management aspects of construction management and aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Construction Management degree. The inclusion of additional preparatory units is designed to assist students in the transition to study at University level.

Students who successfully complete the Bachelor of Construction Management (UWSC First Year Program) will articulate into Bachelor of Construction Management degree at UWS with up to one year equivalent of advanced standing.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode

One and a half years full-time (4 terms) or three years part-time (8 terms).

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission

Local Recent School Leavers:

Completion of Year 12 with specified ATAR to be determined year by year.

Non-Credentialed Students:

Australian Citizens and Permanent Residents either aged 18 years or over or completed Year 11 equivalent.

Course Structure

Students are categorised into two Pathways. See individual links below for detailed course structure.

Local Recent School Leavers

A7003.1 UWSCollege Construction Management Extended Local Recent School Leavers

Non-Credentialed Applicants

A7005.1 UWSCollege Construction Management Extended Non-Credentialed Applicants

Diploma in Construction Management

7015.5

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year for this course is 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

The program is designed to provide students with the first year units included in the Bachelor of Construction Management degree. It presents students with a range of units covering the science, building and management aspects of construction management and aims to prepare students for study beyond the first year of the Bachelor of Construction Management degree. It is delivered in a smaller, more supportive learning environment than usually found in first year undergraduate programs. Students who successfully complete the Diploma in Construction Management will articulate into the Bachelor of Construction Management degree at UWS with up to one year equivalent of advanced standing.

Study Mode

One year full-time (three sessions)

Location

Campus	Attendance	Mode
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission

The aim of the course is to prepare students for tertiary study in Construction Management. The Diploma is accredited by the University, as principal, to enable its agent, UWSCollege, to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students entering this Diploma are required to have:

- Completed an English unit in the NSW Higher School Certificate, OR
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR

- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Students are also assumed to have background in Mathematics at a senior high school level and assumed background in Science knowledge, preferably in Physics.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Construction Management), OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

International students entering the Diploma must satisfy one of the following language requirements:

- IELTS 6.0 with a minimum 5.5 in each sub band OR
- Completed the UWSCollege EAP 4 course with a 50% pass OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Students are also assumed to have a background in Mathematics at a senior high school level and assumed background in Science knowledge, preferably in Physics

Academic Entry Requirements vary according to country of origin. However, in general:

- Completion of Year 12 or its equivalent is the minimum entry requirement OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

Special Requirements

All students must complete Tertiary Study Skills with UWSCollege prior to completion of the Diploma.

Course Structure

Qualification for this award requires the successful completion of the units listed below.

Students are required to successfully pass the following units

700126.1	Design Science (UWSC)
700150.1	Graphic Communication and Design (UWSC)
700154.1	Professional Competencies (UWSC)
700070.1	Building 1 (UWSC)
700071.1	Building 2 (UWSC)
700003.3	Management Dynamics (UWSC)
700004.2	Introduction to Business Law (UWSC)
700005.2	Accounting Information for Managers (UWSC)

Students must pass the following preparatory level units for which no advanced standing will be granted in the UWS degree program:

700144.1	Foundation Physics 1 (UWSCFS)
700056.2	Academic English (UWSCFS)

Students must also pass with a satisfactory grade the following non-award unit, which does not count for credit towards the Diploma:

700167.1	Tertiary Study Skills in Construction Management (UWSC)

Diploma in Construction Management Extended

7065.1

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

The program is designed to provide students with the first year units included in the Bachelor of Construction Management degree. It presents students with a range of units covering the science, building and management aspects of construction management and aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Construction Management degree. The inclusion of additional preparatory units is designed to assist students in the transition to study at University level.

Students who successfully complete the Diploma in Construction Management will articulate into Bachelor of Construction Management degree at UWS with up to one year equivalent of advanced standing.

Study Mode

One and a half years full-time (four terms) or three years part-time (eight terms).

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission

Local Recent School Leavers:

Completion of Year 12 with specified ATAR to be determined year by year.

International Students:

IELTS 5.5 with minimum 5.0 in each sub band; or equivalent results from UWSC English Language Program or UWSC English Entrance Test; and completion of year 11 or equivalent with specified results.

Non-Credentialed Students:

Australian Citizens and Permanent Residents either aged 18 years or over or completed Year 11 equivalent.

Course Structure

Students are categorised into three Pathways. See individual links below for detailed course structure.

Local Recent School Leavers

A7003.1	UWSCollege Construction Management Extended Local Recent School Leavers

International Students

A7004.1	UWSCollege Construction Management Extended International Students

Non-Credentialed Applicants

A7005.1	UWSCollege Construction Management Extended Non-Credentialed Applicants

Diploma in Construction Management Fast Track

7016.5

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year for this course is 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

The program is designed to provide students with the first year units included in the Bachelor of Construction Management degree. It presents students with a range of units covering the science, building and management aspects of construction management and aims to prepare students for study beyond the first year of the Bachelor of Construction Management degree. It is delivered in a smaller, more supportive learning environment than usually found in first year undergraduate programs. Students who successfully complete the Diploma in Construction Management Fast Track will articulate into the Bachelor of Construction Management degree at UWS with up to one year equivalent of advanced standing.

Study Mode
Eight months (two semesters)

Location

Campus	Attendance	Mode
UWSC - Nirimba Education Precinct	Full Time	Internal

Admission
The aim of the course is to prepare students for tertiary study in Construction Management. The Diploma is accredited by the University, as principal, to enable its agent, UWSCollege, to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students entering this Diploma are required to have:

- Completed an English unit in the NSW Higher School Certificate, OR
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher.

Students are also assumed to have background in Mathematics at a senior high school level and assumed background in Science knowledge, preferably in Physics.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Construction Management), OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 6.0 or higher.

International students entering the Diploma must satisfy one of the following language requirements:

- IELTS 6.0 with a minimum 5.5 in each sub band OR
- Completed the UWSCollege EAP 4 course with a 50% pass OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher.
- Passed a UWSCollege Foundation Studies Mathematics unit at C grade level or higher.

Students are also assumed to have a background in Mathematics at a senior high school level and assumed background in Science knowledge, preferably in Physics.

Academic Entry Requirements vary according to country of origin. However, in general:

- Completion of Year 12 or its equivalent is the minimum entry requirement OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 6.0 or higher.

Special Requirements
All students must complete Tertiary Study Skills with UWS College prior to completion of the Diploma.

Course Structure
To be awarded the Diploma in Construction Management, student must pass the following units

700126.1	Design Science (UWSC)
700150.1	Graphic Communication and Design (UWSC)
700154.1	Professional Competencies (UWSC)
700070.1	Building 1 (UWSC)
700071.1	Building 2 (UWSC)
700003.3	Management Dynamics (UWSC)
700004.2	Introduction to Business Law (UWSC)
700005.2	Accounting Information for Managers (UWSC)

Students must also pass the non-award unit below, which does does not count for credit towards the Diploma.

700167.1	Tertiary Study Skills in Construction Management (UWSC)

Bachelor of Engineering (UWSC First Year Program)

7033.1

This course replaces 7030 - Bachelor of Engineering Science (UWSC First Year Program) from 2014.

This course is delivered by UWS College as an agent of the University of Western Sydney.

The Bachelor of Engineering (UWSC First Year Program) is designed to engage students in and further prepare students for tertiary study in Engineering/Engineering Science and in so doing address any perceived deficiencies in the students' mathematical and physics knowledge and skills. This course presents students with units from the first year of the Bachelor of Engineering or Bachelor of Engineering Science degree. It aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Engineering/Engineering Science degree. It is completed in a smaller, more supportive learning environment than usually found in first year undergraduate programs, is designed to develop students to have greater ability in self-directed study and have the self-esteem that comes from prior achievement in a tertiary environment.

For more information on UWSCollege, please refer to the UWS College web site.

Study Mode
One year full-time, two years part-time.

Location

Campus	Attendance	Mode
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal

Admission
The aim of the course is to engage students in and further prepare students for tertiary study in Engineering. This course is accredited by the University, as principal, to enable its agent (UWSCollege) to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students are required to have:

- Completed an English unit in the NSW Higher School Certificate, or
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) or
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Assumed to have a background in mathematics at senor high school level and assumed background Science knowledge, preferably in Physics.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Engineering Science), or
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

Course Structure
Students must pass the following units

700100.2	Mathematics for Engineers Preliminary (UWSC)
700019.6	Mathematics for Engineers 1 (UWSC)
700024.1	Electrical Fundamentals (UWSC)
700018.1	Engineering Computing (UWSC)
700023.1	Fundamentals of Mechanics (UWSC)
700152.1	Engineering Materials (UWSC)
700148.1	Introduction to Engineering Practice (UWSC)
700151.1	Engineering Physics (UWSC)

Students must pass the following preparatory level units for which no advanced standing will be granted in the UWS degree program:

700146.2	Mathematics 2 (UWSCFS)
700145.1	Foundation Physics 2 (UWSCFS)

Students must also pass the non-award unit below, which does not count for credit towards the Diploma:

700169.1	Tertiary Study Skills in Engineering (UWSC)

Bachelor of Engineering Extended (UWSC First Year Program)

7082.1

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

This program is designed to engage students in, and further prepare students for, tertiary study in Engineering / Engineering Science and in so doing address any perceived deficiencies in the students' mathematical and physics knowledge and skills. The course presents students with units from the first year of the Bachelor of Engineering/ Bachelor of Engineering Science degree. The course aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Engineering / Engineering Science degree. The Bachelor First Year Program, completed in a smaller, more supportive learning environment than usually found in first year undergraduate programs, is designed to develop students to have greater ability in self-directed study and have the self-esteem that comes from prior achievement in a tertiary environment. The inclusion of additional preparatory units is designed to assist students in the transition to study at University level.

For more information on UWSCollege, please refer to the UWSCollege web site

Study Mode
One and a half years full-time (four terms) or three years part-time (eight terms).

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission

Local Recent School Leavers:

Completion of Year 12 with specified ATAR to be determined year by year.

Non-Credentialed Students:

Australian Citizens and Permanent Residents either aged 18 years or over or completed Year 11 equivalent.

Course Structure

Students are categorised into two Pathways. See individual links below for detailed course structure.

Local Recent School Leavers

A7006.1 UWSCollege Engineering Extended Local Recent School Leavers

Non-Credentialed Applicants

A7008.1 UWSCollege Engineering Extended Non-Credentialed Applicants

Diploma in Engineering

7034.1

This course replaces 7023 - Diploma in Engineering Science from 2014.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

The Diploma in Engineering is designed to engage students in, and further prepare students for, tertiary study in Engineering / Engineering Science and in so doing address any perceived deficiencies in the students' mathematical and physics knowledge and skills. The Diploma presents students with units from the first year of the Bachelor of Engineering or Bachelor of Engineering Science degree. The Diploma aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Engineering / Engineering Science degree. The Diploma, completed in a smaller, more supportive learning environment than usually found in first year undergraduate programs, is designed to develop students to have greater ability in self-directed study and have the self-esteem that comes from prior achievement in a tertiary environment.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode

One year full time, two years part time

Location

Campus	Attendance	Mode
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal

Admission

The aim of the course is to prepare students for tertiary study in Engineering. The Diploma is accredited by the University, as principal, to enable its agent (UWSCollege) to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students entering this Diploma are required to have:

- Completed an English unit in the NSW Higher School Certificate, OR
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Assumed to have a background in mathematics at senor high school level and assumed background Science knowledge, preferably in Physics.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Engineering), OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

English Entry Requirements. International students entering the Diploma must satisfy one of the following language requirements:

- IELTS 6.0 with a minimum 5.5 in each sub band OR
- Completed the UWSCollege EAP 4 course with a 50% pass OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Assumed to have background in mathematics at senor high school level and assumed background Science knowledge, preferably in Physics.

Academic Entry Requirements vary according to country of origin. However, in general:

- Completion of Year 12 or its equivalent is the minimum entry requirement OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

Course Structure

Students must pass the following units

700100.2 Mathematics for Engineers Preliminary (UWSC)
700019.6 Mathematics for Engineers 1 (UWSC)
700024.1 Electrical Fundamentals (UWSC)
700018.1 Engineering Computing (UWSC)
700023.1 Fundamentals of Mechanics (UWSC)
700152.1 Engineering Materials (UWSC)
700148.1 Introduction to Engineering Practice (UWSC)
700151.1 Engineering Physics (UWSC)

Students must pass the following preparatory level units for which no advanced standing will be granted in the UWS degree program:

700146.2 Mathematics 2 (UWSCFS)
700145.1 Foundation Physics 2 (UWSCFS)

Students must also pass the following non-award unit, which does not count for credit towards the Diploma

700169.1 Tertiary Study Skills in Engineering (UWSC)

Diploma in Engineering Extended

7066.1

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

The Diploma in Engineering is designed to engage students in, and further prepare students for, tertiary study in Engineering/Engineering Science and in so doing address any perceived deficiencies in the students' mathematical and physics knowledge and skills. The Diploma presents students with units from the first year of the Bachelor of Engineering or Bachelor of Engineering Science degree. The Diploma aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Engineering/Engineering Science degree. The Diploma, completed in a smaller, more supportive learning environment than usually found in first year undergraduate programs, is designed to develop students to have greater ability in self-directed study and have the self-esteem that comes from prior achievement in a tertiary environment. The inclusion of additional preparatory units is designed to assist students in the transition to study at University level.

Study Mode
One and a half years full-time (four terms) or three years part-time (eight terms).

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission
Local Recent School Leavers:

Completion of Year 12 with specified ATAR to be determined year by year.

International Students:

IELTS 5.5 with minimum 5.0 in each sub band; or equivalent results from UWSC English Language Program or UWSC English Entrance Test; and completion of year 11 or equivalent with specified results.

Non-Credentialed Students:

Australian Citizens and Permanent Residents either aged 18 years or over or completed Year 11 equivalent.

Course Structure
Students are categorised into three Pathways. See individual links below for detailed course structure.

Local Recent School Leavers

A7006.1 UWSCollege Engineering Extended Local Recent School Leavers

International Students

A7007.1 UWSCollege Engineering Extended International Students

Non-Credentialed Applicants

A7008.1 UWSCollege Engineering Extended Non-Credentialed Applicants

Diploma in Engineering Fast Track

7035.1

This course replaces 7024 - Diploma in Engineering Science Fast Track from 2014.

This course is delivered by UWS College as an agent of the University of Western Sydney.

The Diploma in Engineering Fast Track is designed to engage students in, and further prepare students for, tertiary study in Engineering/Engineering Science and in so doing address any perceived deficiencies in the students' mathematical and physics knowledge and skills. The Diploma presents students with units from the first year of the Bachelor of Engineering or Bachelor of Engineering Science degree. The Diploma aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Engineering/Engineering Science degree. The Diploma, completed in a smaller, more supportive learning environment than usually found in first year undergraduate programs, is designed to develop students to have greater ability in self-directed study and have the self-esteem that comes from prior achievement in a tertiary environment.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode
Eight months full-time (two sessions), two years part-time.

Location

Campus	Attendance	Mode
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal

Admission

The aim of the course is to prepare students for tertiary study in Engineering. The Diploma is accredited by the University, as principal, to enable its agent (UWSCollege) to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students entering this Diploma are required to have:

- Completed an English unit in the NSW Higher School Certificate, Or
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) Or
- Passed the UWSCollege English test at IELTS 6.0 equivalent Or
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Assumed to have a background in mathematics at senor high school level and assumed background Science knowledge, preferably in Physics.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Engineering Science), Or
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 6.0 or higher

English Entry Requirements. International students entering the Diploma must satisfy one of the following language requirements:

- IELTS 6.0 with a minimum 5.5 in each sub band Or
- Completed the UWSCollege EAP 4 course with a 50% pass Or
- Passed the UWSCollege English test at IELTS 6.0 equivalent Or
- Passed the UWSCollege Foundation Studies Academic English unit at C gr.ade level or higher for which advanced standing can be applied for.

Assumed to have background in mathematics at senor high school level and assumed background Science knowledge, preferably in Physics.

Academic Entry Requirements vary according to country of origin. However, in general:

- Completion of Year 12 or its equivalent is the minimum entry requirement Or
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 6.0 or higher.

Special Requirements

All students must complete Tertiary Study Skills with UWSCollege prior to completion of the diploma.

Course Structure

Students must pass the following units

700100.2	Mathematics for Engineers Preliminary (UWSC)
700019.6	Mathematics for Engineers 1 (UWSC)
700024.1	Electrical Fundamentals (UWSC)
700018.1	Engineering Computing (UWSC)
700023.1	Fundamentals of Mechanics (UWSC)
700152.1	Engineering Materials (UWSC)
700148.1	Introduction to Engineering Practice (UWSC)
700151.1	Engineering Physics (UWSC)

Students must also pass the following non-award unit , which does not count for credit towards the Diploma

700169.1	Tertiary Study Skills in Engineering (UWSC)

Bachelor of Information and Communications Technology (UWSC First Year Program)

7041.1

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2014 or later.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

This program is designed to provide a tertiary level foundation for further study in the Bachelor of Information and Communications Technology and Bachelor of Information Systems degrees. It has been constructed to provide students with a sample of ICT units and university experiences. Students who successfully complete this course will articulate into Bachelor of Information and Communications Technology degree at UWS with up to one year equivalent of advanced standing. Students may also articulate into Bachelor of Information Systems.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode

One year full-time (three semesters) or two years part-time (six semesters).

Location

Campus	Attendance	Mode
UWSC - Nirimba Education Precinct	Full Time	Internal

Admission

The aim of the course is to prepare students for tertiary study in Information and Communications Technology or Computing. The Diploma is accredited by the University, as principal, to enable its agent, UWSCollege, to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students entering this Diploma are required to have

- Completed an English unit in the NSW Higher School Certificate, or
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) or

- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Students are also assumed to have completed a Mathematics subject, equivalent to the Mathematics subject in the NSW Higher School Certificate.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Information Communications Technology or Computing), or
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

Course Structure

Students must pass the following units

700040.2	Principles of Professional Communication 1 (UWSC)
700008.1	Programming Fundamentals (UWSC)
700000.2	Information Systems in Context (UWSC)
700011.2	Database Design and Development (UWSC)
700012.1	Computer Networking (UWSC)
700013.1	Systems Analysis and Design (UWSC)
700039.1	Object Oriented Analysis (UWSC)
700007.4	Statistics for Business (UWSC)

or

700041.4	Statistical Decision Making (UWSC)

Students who wish to enter Bachelor of Information Systems on completion of this course will study 700007 Statistics for Business. Students intending to enter the Bachelor of Information and Communications Technology will study 700041 Statistical Decision Making (subject to student numbers).

Students must pass the following preparatory level units for which no advanced standing will be granted in the UWS degree program:

700045.2	Statistics for Academic Purposes (UWSCFS)
700047.2	Programming Design (UWSCFS)

Bachelor of Information and Communications Technology Extended (UWSC First Year Program)

7083.1

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

This program is designed to provide a tertiary level foundation for further study in the Bachelor of Information and Communications Technology and Bachelor of Information Systems degrees. It has been constructed to provide students with a sample of ICT units and university experiences. The inclusion of additional preparatory units is designed to assist students in the transition to study at University level.

Students who successfully complete the Bachelor of Information and Communications Technology Extended (UWSC First Year Program) will articulate into the Bachelor of Information and Communications Technology degree at UWS with up to one year equivalent of advanced standing. Students may also articulate into Bachelor of Information Systems.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode

One and a half years full-time (four terms) or three years part-time (eight terms).

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission

Local Recent School Leavers:

Completion of Year 12 with specified ATAR to be determined year by year.

Non-Credentialed Students:

Australian Citizens and Permanent Residents either aged 18 years or over or completed Year 11 equivalent.

Course Structure

Students are categorised into two Pathways. See individual links below for detailed course structure.

Local Recent School Leavers

A7000.1	UWSCollege Information and Communications Technology Extended Local Recent School Leavers

Non-Credentialed Applicants

A7002.1	UWSCollege Information and Communications Technology Extended Non-Credentialed Applicants

Diploma in Information and Communications Technology

7005.3

Students should follow the course structure for the course version relevant to the year they commenced. This version

applies to students whose commencement year for this course is 2014 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

This program is designed to provide a tertiary level foundation for further study in the Bachelor of Information and Communications Technology and Bachelor of Information Systems degrees. It has been constructed to provide students with a sample of ICT units and university experiences. Students who successfully complete the Diploma in Information and Communications Technology will articulate into Bachelor of Information and Communications Technology degree at UWS with up to one year equivalent of advanced standing. Students may also articulate into Bachelor Information Systems.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode

One year full-time (three sessions)

Location

Campus	Attendance	Mode
UWSC - Nirimba Education Precinct	Full Time	Internal

Admission

The aim of the course is to prepare students for tertiary study in Information and Communications Technology or Computing. The Diploma is accredited by the University, as principal, to enable its agent, UWSCollege, to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students entering this Diploma are required to have:

- Completed an English unit in the NSW Higher School Certificate, OR
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Students are also assumed to have completed a Mathematics subject, equivalent to the Mathematics subject in the NSW Higher School Certificate.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Information Communications Technology or Computing), OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

International students entering the Diploma must satisfy one of the following language requirements:

- LTS 6.0 with a minimum 5.5 in each sub band OR
- Completed the UWSCollege EAP 4 course with a 50% pass OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Students are also assumed to have completed a Mathematics subject, equivalent to the Mathematics subject in the NSW Higher School Certificate.

Academic Entry Requirements vary according to country of origin. However, in general:

- Completion of Year 12 or its equivalent is the minimum entry requirement OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

Special Requirements

Students must complete Tertiary Study Skills with UWSCollege prior to completion of the diploma.

Course Structure

Students who wish to enter the Bachelor of Information Systems on completion of this Diploma course will, subject to student numbers, study 700007 Statistics for Business (UWSC). Students intending to enter the Bachelor of Information and Communications Technology will study 700041 Statistical Decision Making (UWSC).

Students must pass the following units

700040.2	Principles of Professional Communication 1 (UWSC)
700008.1	Programming Fundamentals (UWSC)
700000.2	Information Systems in Context (UWSC)
700011.2	Database Design and Development (UWSC)
700012.1	Computer Networking (UWSC)
700013.1	Systems Analysis and Design (UWSC)
700039.1	Object Oriented Analysis (UWSC)

Choose one of

700007.4	Statistics for Business (UWSC)
700041.4	Statistical Decision Making (UWSC)

Students must pass the following preparatory level units for which no advanced standing will be granted in the UWS degree program:

700045.2	Statistics for Academic Purposes (UWSCFS)
700047.2	Programming Design (UWSCFS)

Students must also pass with a Satisfactory grade the following non-award unit, which does not count for credit towards the Diploma

700171.1	Tertiary Study Skills in Information and Communications Technology

Diploma in Information and Communications Technology Extended

7067.1

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

This program is designed to provide a tertiary level foundation for further study in the Bachelor of Information

and Communications Technology and Bachelor of Information Systems degrees. It has been constructed to provide students with a sample of ICT units and university experiences. The inclusion of additional preparatory units is designed to assist students in the transition to study at University level.

Students who successfully complete the Diploma in Information and Communications Technology Extended will articulate into Bachelor of Information and Communications Technology degree at UWS with up to one year equivalent of advanced standing. Students may also articulate into Bachelor of Information Systems.

Study Mode

One and a half years full-time (four terms) or three years part-time (eight terms).

Location

Campus	Attendance	Mode
UWSC - Nirimba Education Precinct	Full Time	Internal

Admission

Local Recent School Leavers:

Completion of Year 12 with specified ATAR to be determined year by year.

International Students:

IELTS 5.5 with minimum 5.0 in each sub band; or equivalent results from UWSC English Language Program or UWSC English Entrance Test; and completion of year 11 or equivalent with specified results.

Non-Credentialed Students:

Australian Citizens and Permanent Residents either aged 18 years or over or completed Year 11 equivalent.

Course Structure

Students are categorised into three Pathways. See individual links below for detailed course structure.

Local Recent School Leavers

A7000.1	UWSCollege Information and Communications Technology Extended Local Recent School Leavers

International Students

A7001.1	UWSCollege Information and Communications Technology Extended International Students

Non-Credentialed Applicants

A7002.1	UWSCollege Information and Communications Technology Extended Non-Credentialed Applicants

Diploma in Information and Communications Technology Fast Track

7004.3

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year for this course is 2014.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

This program is designed to provide a tertiary level foundation for further study in the Bachelor of Information and Communications Technology and Bachelor of Information Systems degrees. It has been constructed to provide students with a sample of ICT units and university experiences. Students who successfully complete the Diploma in Information and Communications Technology Fast Track will articulate into Bachelor of Information and Communications Technology degree at UWS with up to one year equivalent of advanced standing. Students may also articulate into Bachelor of Information Systems.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode

Eight months full-time (two sessions)

Location

Campus	Attendance	Mode
UWSC - Nirimba Education Precinct	Full Time	Internal

Admission

The aim of the course is to prepare students for tertiary study in Information and Communications Technology or Computing. The Diploma is accredited by the University, as principal, to enable its agent, UWSCollege, to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students entering this Diploma are required to have:

- Completed an English unit in the NSW Higher School Certificate, OR
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher.
- Passed either the UWSCollege Foundation Studies Commercial Mathematics or Mathematics B unit at C grade level or higher.

Students are also assumed to have completed a Mathematics subject, equivalent to the Mathematics subject in the NSW Higher School Certificate.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Information Communications Technology or Computing), OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 6.0 or higher.

International students entering the Diploma must satisfy one of the following language requirements:

- IELTS 6.0 with a minimum 5.5 in each sub band OR
- Completed the UWSCollege EAP 4 course with a 50% pass OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher.
- Passed either the UWSCollege Foundation Studies Commercial Mathematics or Mathematics B unit at C grade level or higher.

Students are also assumed to have completed a Mathematics subject, equivalent to the Mathematics subject in the NSW Higher School Certificate.

Academic Entry Requirements vary according to country of origin. However, in general:

- Completion of Year 12 or its equivalent is the minimum entry requirement OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 6.0 or higher.

Special Requirements

Students must complete Tertiary Study Skills with UWSCollege prior to completion of the diploma.

Course Structure

Students who wish to enter the Bachelor of Information Systems on completion of this Diploma course will, subject to student numbers, study 700007 Statistics for Business (UWSC). Students intending to enter the Bachelor of Information and Communications Technology will, subject to student numbers, study 700041 Statistical Decision Making (UWSC).

Students must also pass the following seven units

700040.2	Principles of Professional Communication 1 (UWSC)
700008.1	Programming Fundamentals (UWSC)
700000.2	Information Systems in Context (UWSC)
700011.2	Database Design and Development (UWSC)
700012.1	Computer Networking (UWSC)
700013.1	Systems Analysis and Design (UWSC)
700039.1	Object Oriented Analysis (UWSC)

Choose one of

700007.4	Statistics for Business (UWSC)
700041.4	Statistical Decision Making (UWSC)

Students must also pass the following non-award unit, which does not count for credit towards the Diploma

700171.1	Tertiary Study Skills in Information and Communications Technology

Specialisations

UWSCollege Admission Pathway - UWSCollege Information and Communications Technology Extended Local Recent School Leavers

A7000.1

Location

Campus	Mode
Bankstown Campus	Internal
Lithgow site	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7067 Diploma in Information and Communications Technology Extended or 7083 Bachelor of Information and Communications Technology Extended (UWSC First Year Program) to complete this specialisation.

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program.

700198.1 Academic Communication 1 (UWSCFS)
700205.1 Academic Skills for Information Communications Technology (UWSCFS)
700201.1 Computer Studies (UWSCFS)
700206.1 Business Studies (UWSCFS)
700199.1 Academic Communication 2 (UWSCFS)
700047.2 Programming Design (UWSCFS)
700045.2 Statistics for Academic Purposes (UWSCFS)
700146.2 Mathematics 2 (UWSCFS)

Students must pass the following University level units

700040.2 Principles of Professional Communication 1 (UWSC)
700008.1 Programming Fundamentals (UWSC)
700000.2 Information Systems in Context (UWSC)
700011.2 Database Design and Development (UWSC)
700012.1 Computer Networking (UWSC)
700013.1 Systems Analysis and Design (UWSC)
700039.1 Object Oriented Analysis (UWSC)
700041.4 Statistical Decision Making (UWSC)

Students must pass all of the following preparatory units prior to enrolling in the University level units

700198.1 Academic Communication 1 (UWSCFS)
700205.1 Academic Skills for Information Communications Technology (UWSCFS)
700201.1 Computer Studies (UWSCFS)
700206.1 Business Studies (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Information and Communications Technology Extended International Students

A7001.1

Location

Campus	Mode
Bankstown Campus	Internal
Lithgow site	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7067 Diploma in Information and Communications Technology Extended or 7083 Bachelor of Information and Communications Technology Extended (UWSC First Year Program) to complete this specialisation.

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700207.1 English for Tertiary Study 1 (UWSCFS)
700205.1 Academic Skills for Information Communications Technology (UWSCFS)
700201.1 Computer Studies (UWSCFS)
700206.1 Business Studies (UWSCFS)
700208.1 English for Tertiary Study 2 (UWSCFS)
700047.2 Programming Design (UWSCFS)
700045.2 Statistics for Academic Purposes (UWSCFS)
700146.2 Mathematics 2 (UWSCFS)

Students must pass the following University level units

700040.2 Principles of Professional Communication 1 (UWSC)
700008.1 Programming Fundamentals (UWSC)
700000.2 Information Systems in Context (UWSC)
700011.2 Database Design and Development (UWSC)
700012.1 Computer Networking (UWSC)
700013.1 Systems Analysis and Design (UWSC)
700039.1 Object Oriented Analysis (UWSC)
700041.4 Statistical Decision Making (UWSC)

Students must pass all of the following preparatory units prior to enrolling in the University level units

700207.1 English for Tertiary Study 1 (UWSCFS)
700205.1 Academic Skills for Information Communications Technology (UWSCFS)
700201.1 Computer Studies (UWSCFS)
700206.1 Business Studies (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Information and Communications Technology Extended Non-Credentialed Applicants

A7002.1

Location

Campus	Mode
Bankstown Campus	Internal
Lithgow site	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7067 Diploma in Information and Communications Technology Extended or 7083 Bachelor of Information and Communications Technology Extended (UWSC First Year Program) to complete this specialisation.

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700209.1 Introduction to Academic Communication 1 (UWSCFS)
700205.1 Academic Skills for Information Communications Technology (UWSCFS)
700201.1 Computer Studies (UWSCFS)
700206.1 Business Studies (UWSCFS)
700210.1 Introduction to Academic Communication 2 (UWSCFS)
700047.2 Programming Design (UWSCFS)
700045.2 Statistics for Academic Purposes (UWSCFS)
700146.2 Mathematics 2 (UWSCFS)

Students must pass the following University level units

700040.2 Principles of Professional Communication 1 (UWSC)
700008.1 Programming Fundamentals (UWSC)
700000.2 Information Systems in Context (UWSC)
700011.2 Database Design and Development (UWSC)
700012.1 Computer Networking (UWSC)
700013.1 Systems Analysis and Design (UWSC)
700039.1 Object Oriented Analysis (UWSC)
700041.4 Statistical Decision Making (UWSC)

Students must pass all of the following preparatory units prior to enrolling in the University level units

700209.1 Introduction to Academic Communication 1 (UWSCFS)
700205.1 Academic Skills for Information Communications Technology (UWSCFS)
700201.1 Computer Studies (UWSCFS)
700206.1 Business Studies (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Construction Management Extended Local Recent School Leavers

A7003.1

Location

Campus	Mode
Bankstown Campus	Internal
Lithgow site	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7065 Diploma in Construction Management Extended or 7081 Bachelor of Construction Management Extended (UWSC First Year Program) to complete this specialisation.

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700198.1 Academic Communication 1 (UWSCFS)
700200.1 Academic Skills for Construction Management (UWSCFS)
700144.1 Foundation Physics 1 (UWSCFS)
700199.1 Academic Communication 2 (UWSCFS)
700046.2 Accounting Fundamentals (UWSCFS)
700146.2 Mathematics 2 (UWSCFS)
700201.1 Computer Studies (UWSCFS)

Students must pass the following University level units

700126.1 Design Science (UWSC)
700150.1 Graphic Communication and Design (UWSC)
700154.1 Professional Competencies (UWSC)
700070.1 Building 1 (UWSC)
700071.1 Building 2 (UWSC)
700003.3 Management Dynamics (UWSC)
700004.2 Introduction to Business Law (UWSC)
700005.2 Accounting Information for Managers (UWSC)

Students must pass all of the following preparatory units prior to enrolling in the University level units

700198.1 Academic Communication 1 (UWSCFS)
700200.1 Academic Skills for Construction Management (UWSCFS)
700144.1 Foundation Physics 1 (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Construction Management Extended International Students

A7004.1

Location

Campus	Mode
Bankstown Campus	Internal
Lithgow site	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7065 Diploma in Construction Management Extended or 7081 Bachelor of Construction Management Extended (UWSC First Year Program) to complete this specialisation.

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700207.1 English for Tertiary Study 1 (UWSCFS)
700200.1 Academic Skills for Construction Management (UWSCFS)
700144.1 Foundation Physics 1 (UWSCFS)
700208.1 English for Tertiary Study 2 (UWSCFS)
700046.2 Accounting Fundamentals (UWSCFS)
700146.2 Mathematics 2 (UWSCFS)
700201.1 Computer Studies (UWSCFS)

Students must pass the following University level units

700126.1 Design Science (UWSC)
700150.1 Graphic Communication and Design (UWSC)
700154.1 Professional Competencies (UWSC)
700070.1 Building 1 (UWSC)
700071.1 Building 2 (UWSC)
700003.3 Management Dynamics (UWSC)
700004.2 Introduction to Business Law (UWSC)
700005.2 Accounting Information for Managers (UWSC)

Students must pass all of the following preparatory units prior to enrolling in the University level units

700207.1 English for Tertiary Study 1 (UWSCFS)
700200.1 Academic Skills for Construction Management (UWSCFS)
700144.1 Foundation Physics 1 (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Construction Management Extended Non-Credentialed Applicants

A7005.1

Location

Campus	Mode
Bankstown Campus	Internal
Lithgow site	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7065 Diploma in Construction Management Extended or 7081 Bachelor of Construction Management Extended (UWSC First Year Program) to complete this specialisation.

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700209.1 Introduction to Academic Communication 1 (UWSCFS)
700200.1 Academic Skills for Construction Management (UWSCFS)
700144.1 Foundation Physics 1 (UWSCFS)
700210.1 Introduction to Academic Communication 2 (UWSCFS)
700046.2 Accounting Fundamentals (UWSCFS)
700146.2 Mathematics 2 (UWSCFS)
700201.1 Computer Studies (UWSCFS)

Students must pass the following University level units

700126.1 Design Science (UWSC)
700150.1 Graphic Communication and Design (UWSC)
700154.1 Professional Competencies (UWSC)
700070.1 Building 1 (UWSC)
700071.1 Building 2 (UWSC)
700003.3 Management Dynamics (UWSC)
700004.2 Introduction to Business Law (UWSC)
700005.2 Accounting Information for Managers (UWSC)

Students must pass all of the following preparatory units prior to enrolling in the University level units

700209.1 Introduction to Academic Communication 1 (UWSCFS)
700200.1 Academic Skills for Construction Management (UWSCFS)
700144.1 Foundation Physics 1 (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Engineering Extended Local Recent School Leavers

A7006.1

Location

Campus	Mode
Bankstown Campus	Internal
Lithgow site	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7066 Diploma in Engineering Extended or 7082 Bachelor of Engineering Extended (UWSC First Year Program) to complete this specialisation.

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700198.1 Academic Communication 1 (UWSCFS)
700202.1 Academic Skills for Engineering (UWSCFS)
700146.2 Mathematics 2 (UWSCFS)
700144.1 Foundation Physics 1 (UWSCFS)
700203.1 Mathematics 3 (UWSCFS)
700145.1 Foundation Physics 2 (UWSCFS)
700204.1 Introductory Programming (UWSCFS)

Students must pass the following University level units

700100.2 Mathematics for Engineers Preliminary (UWSC)
700019.6 Mathematics for Engineers 1 (UWSC)
700024.1 Electrical Fundamentals (UWSC)
700018.1 Engineering Computing (UWSC)
700023.1 Fundamentals of Mechanics (UWSC)
700152.1 Engineering Materials (UWSC)
700148.1 Introduction to Engineering Practice (UWSC)
700151.1 Engineering Physics (UWSC)

Students must pass all of the following preparatory units prior to enrolling in the University level units

700198.1 Academic Communication 1 (UWSCFS)
700202.1 Academic Skills for Engineering (UWSCFS)
700146.2 Mathematics 2 (UWSCFS)
700144.1 Foundation Physics 1 (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Engineering Extended International Students

A7007.1

Location

Campus	Mode
Bankstown Campus	External
Lithgow site	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7066 Diploma in Engineering Extended or 7082 Bachelor of Engineering Extended (UWSC First Year Program) to complete this specialisation.

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700207.1 English for Tertiary Study 1 (UWSCFS)
700146.2 Mathematics 2 (UWSCFS)
700204.1 Introductory Programming (UWSCFS)
700144.1 Foundation Physics 1 (UWSCFS)
700208.1 English for Tertiary Study 2 (UWSCFS)
700203.1 Mathematics 3 (UWSCFS)
700145.1 Foundation Physics 2 (UWSCFS)

Students must pass the following University level units

700100.2 Mathematics for Engineers Preliminary (UWSC)
700019.6 Mathematics for Engineers 1 (UWSC)
700024.1 Electrical Fundamentals (UWSC)
700018.1 Engineering Computing (UWSC)
700023.1 Fundamentals of Mechanics (UWSC)
700152.1 Engineering Materials (UWSC)
700148.1 Introduction to Engineering Practice (UWSC)
700151.1 Engineering Physics (UWSC)

Students must pass all of the following preparatory units prior to enrolling in the University level units

700207.1 English for Tertiary Study 1 (UWSCFS)
700146.2 Mathematics 2 (UWSCFS)
700204.1 Introductory Programming (UWSCFS)
700144.1 Foundation Physics 1 (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Engineering Extended Non-Credentialed Applicants

A7008.1

Location

Campus	Mode
Bankstown Campus	Internal
Lithgow site	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7066 Diploma in Engineering Extended or 7082 Bachelor of Engineering Extended (UWSC First Year Program) to complete this specialisation.

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700209.1 Introduction to Academic Communication 1 (UWSCFS)
700202.1 Academic Skills for Engineering (UWSCFS)
700146.2 Mathematics 2 (UWSCFS)
700144.1 Foundation Physics 1 (UWSCFS)
700203.1 Mathematics 3 (UWSCFS)
700145.1 Foundation Physics 2 (UWSCFS)
700204.1 Introductory Programming (UWSCFS)

Students must pass the following University level units

700100.2 Mathematics for Engineers Preliminary (UWSC)
700019.6 Mathematics for Engineers 1 (UWSC)
700024.1 Electrical Fundamentals (UWSC)
700018.1 Engineering Computing (UWSC)
700023.1 Fundamentals of Mechanics (UWSC)
700152.1 Engineering Materials (UWSC)
700148.1 Introduction to Engineering Practice (UWSC)
700151.1 Engineering Physics (UWSC)

Students must pass all of the following preparatory units prior to enrolling in the University level units

700209.1 Introduction to Academic Communication 1 (UWSCFS)
700202.1 Academic Skills for Engineering (UWSCFS)
700146.2 Mathematics 2 (UWSCFS)
700144.1 Foundation Physics 1 (UWSCFS)

Key Program - Civil

KT3113.1

Civil engineering covers the fields of structural design, geotechnical engineering and water engineering, together with infrastructure design and environmental engineering. Graduates will work in the fields of design, construction and management of engineering structures. Projects may cover residential and commercial buildings, highways and airports, water supply and sewerage schemes, etc. You may be an engineer in private industry, government departments, or in city, municipal or shire councils.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300738.3 Surveying for Engineers
300040.2 Mechanics of Materials
300762.2 Fluid Mechanics
300985.1 Soil Mechanics

Spring session

300984.1 Pavement Materials and Design
300733.2 Introduction to Structural Engineering
300737.3 Environmental Engineering
300765.2 Hydraulics

Year 3

Autumn session

300732.2 Structural Analysis
300983.1 Surface Water Hydrology
300736.2 Concrete Structures (UG)

And one Alternate unit

Spring session

300730.2 Steel Structures
301001.1 Engineering Geomechanics
300971.1 Engineering Project 1

And one Alternate unit

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 4 (Non-Honours stream)

Autumn session

300972.1 Engineering Project 2

And two electives

*Elective units must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary unit)

And one Alternate unit

Spring session

300982.1 Transportation Engineering
300488.4 Numerical Methods in Engineering

And one elective

*Elective units must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary unit)

And one Alternate unit

Honours Stream

An Honours stream is offered - see the Honours in Bachelors Awards Policy and associated College Guidelines for the admission criteria.

Year 4 (Honours stream - H3003)

Autumn session

300972.1 Engineering Project 2
300973.1 Engineering Thesis 1: Preliminary Investigations

And one elective

And one Alternate unit

Spring session

300982.1 Transportation Engineering
300488.4 Numerical Methods in Engineering

300974.1 Engineering Thesis 2: Detailed Investigations

And one Alternate unit

Alternate Units

Alternate units may be used to complete one of the Specialisation sub-majors listed below.

300986.1 Applied Mechanics
300987.1 Composite Structures
300988.1 Highway Infrastructure
300989.1 Hydrogeology
300990.1 Pile Foundations
300991.1 Statistical Hydrology
300798.1 Sustainability and Risk Engineering
300739.2 Timber Structures (UG)
300994.1 Waste Management
300992.1 Water and Wastewater Treatment
300993.1 Water Resource Engineering

Specialisation Sub-majors

SM3065.1 Structures
SM3066.1 Geotechnical
SM3067.1 Water and Environment

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Construction

KT3114.1

The Construction Key Program consists of core subjects in structural engineering, project management and construction technologies. Graduates will work in the fields of construction, structural design, and project management. Career opportunities include those in the private or public sector on projects covering highways, airports, and residential & commercial buildings.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300738.3 Surveying for Engineers
300040.2 Mechanics of Materials
200486.3 Quantity Surveying 1

300985.1 Soil Mechanics

Spring session

300984.1 Pavement Materials and Design
300733.2 Introduction to Structural Engineering
200468.2 Estimating 1
300707.2 Building 2

Year 3

Autumn session

300732.2 Structural Analysis
300728.2 Construction Planning
300736.2 Concrete Structures (UG)

And one Alternate unit

Spring session

300730.2 Steel Structures
300727.2 Project Management
300971.1 Engineering Project 1

And one Alternate unit

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 4 (Non-Honours stream)

Autumn session

300972.1 Engineering Project 2
300798.1 Sustainability and Risk Engineering

And one Alternate unit

And one elective unit

*Elective units must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary unit)

Spring session

301001.1 Engineering Geomechanics

And one Alternate unit

And two elective units

*Elective units must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary unit)

Honours Stream

An Honours stream is offered - see the Honours in Bachelors Awards Policy and associated College Guidelines for the admission criteria.

Year 4 (Honours stream)

Autumn session

300972.1 Engineering Project 2
300798.1 Sustainability and Risk Engineering
300973.1 Engineering Thesis 1: Preliminary Investigations

And one Alternate unit

Spring session

301001.1 Engineering Geomechanics
300974.1 Engineering Thesis 2: Detailed Investigations

And one Alternate unit

And one elective unit

*Elective units must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary unit)

Alternate Units

Alternate units may be used to complete one of the Specialisation sub-majors listed below.

300986.1 Applied Mechanics
300987.1 Composite Structures
300988.1 Highway Infrastructure
300990.1 Pile Foundations
300739.2 Timber Structures (UG)

Specialisation Sub-majors

SM3065.1 Structures
SM3068.1 Construction Economics

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Electrical

KT3115.1

This program includes core subjects from all branches of electrical engineering. Graduates will work in the fields of electronic components, computers, electro-magnetics, power generation and distribution systems, power and control systems in public utilities, telecommunications, manufacturing, and electrical systems.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300005.2 Circuit Theory
300025.3 Electronics
300057.4 Signals and Systems
300018.2 Digital Systems 1

Spring session

300076.3 Microprocessor Systems
300481.2 Engineering Electromagnetics
300052.2 Power and Machines
300009.3 Control Systems

Year 3

Autumn session

300007.2 Communication Systems
300071.2 Electrical Machines 1

And one Alternate unit

And one elective unit*

*Elective units must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary unit)

Spring session

300771.1 Power Systems
300069.3 Digital Signal Processing
300971.1 Engineering Project 1

And one Alternate unit

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 4 (Non-Honours stream)

Autumn session

300972.1 Engineering Project 2
300772.1 Power Electronics

And one Alternate unit

And one elective unit

*Elective units must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary unit)

Spring session

300075.4 Instrumentation and Measurement
300070.4 Electrical Drives

And one Alternate unit

And one elective unit

*Elective units must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary unit)

Honours Stream

An Honours stream is offered - see the Honours in Bachelors Awards Policy and associated College Guidelines for the admission criteria.

Year 4 (Honours stream)

Autumn session

300972.1 Engineering Project 2

300772.1 Power Electronics
300973.1 Engineering Thesis 1: Preliminary Investigations

And one Alternate unit

Spring session

300075.4 Instrumentation and Measurement
300070.4 Electrical Drives
300974.1 Engineering Thesis 2: Detailed Investigations

And one Alternate unit

Alternate Units

Alternate units may be used to complete one of the Specialisation sub-majors listed below.

300997.1 Data Communications
300019.4 Digital Systems 2
300029.3 Engineering Visualization
300995.1 Power Quality
300489.2 Radio and Satellite Communication
300996.1 Smart Grids and Distributed Generation
300998.1 Sustainable Energy Systems
300065.4 Wireless Communications

Specialisation Sub-majors

SM3069.1 Telecommunications
SM3070.1 Power Engineering

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Mechanical

KT3116.1

In addition to providing training in conventional mechanical engineering subjects, the course structure introduces students to units of study that address sustainability including sustainable design and sustainable energy engineering. Graduates will be well equipped with broad-based skills that meet the demand of Australian industries and are conscious of the need to promote sustainable design and practices. Examples include mechanical and machinery design; manufacturing; energy production; and marketing and management activities. Skills gained are required in industries such as manufacturing, materials handling, automobile, aerospace, mining, building services and infrastructure development.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300035.3 Kinematics and Kinetics of Machines
300040.2 Mechanics of Materials
300762.2 Fluid Mechanics
300282.2 Industrial Graphics 2: Transition

Spring session

300480.2 Dynamics of Mechanical Systems
300735.2 Automated Manufacturing
300760.1 Thermodynamics and Heat Transfer
300761.1 Advanced Mechanics of Materials

Year 3

Autumn session

300764.1 Mechanical Design
300763.1 Advanced Dynamics

And one Alternate unit

And one elective unit*

*Elective units must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary unit)

Spring session

300759.1 Thermal and Fluid Engineering
300488.4 Numerical Methods in Engineering
300971.1 Engineering Project 1

And one Alternate unit

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 4 (Non-Honours stream)

Autumn session

300972.1 Engineering Project 2
300056.4 Robotics

And one Alternate unit

And one elective unit

*Elective units must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary unit)

Spring session

301000.1 Computer Aided Engineering
300487.3 Mechatronic Design

And one Alternate unit

And one elective unit

*Elective units must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary unit)

Honours Stream

An Honours stream is offered - see the Honours in Bachelors Awards Policy and associated College Guidelines for the admission criteria.

Year 4 (Honours stream)

Autumn session

300972.1 Engineering Project 2
300056.4 Robotics
300973.1 Engineering Thesis 1: Preliminary Investigations

And one Alternate unit

Spring session

301000.1 Computer Aided Engineering
300487.3 Mechatronic Design
300974.1 Engineering Thesis 2: Detailed Investigations

And one Alternate unit

Alternate Units

Alternate units may be used to complete one of the Specialisation sub-majors listed below.

300999.1 Computational Fluid Dynamics
300570.3 Human-Computer Interaction
300310.3 Industrial Graphics 3: 3D Solids
300312.3 Industrial Graphics 4: Surface
300044.2 Microcontrollers and PLCs
300043.3 Mobile Robotics
300306.4 Sustainable Design: Sustainable Futures

Specialisation Sub-majors

SM3072.1 Automation
SM3071.1 Computer Aided Design (Mechanical)

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Robotics and Mechatronics

KT3117.1

This program provides the skills necessary for the design of smart machines of all types: cruise control in automobiles, pilotless spacecraft, automated factories and medical telerobotics. The course, accompanied by an extensive and integrated hands-on laboratory program, is essentially concerned with the design of intelligent mechanical systems and automation, and includes the study of robotics, computer control, automated manufacturing, microprocessor applications and machine design. Graduates in the program acquire the combined skills of mechanical and computer/electrical engineering that are needed in leading-edge industries such as aerospace systems, the car industry, automation and robotic applications, biomedical engineering, laser systems, and building materials manufacture.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300035.3 Kinematics and Kinetics of Machines
300040.2 Mechanics of Materials
300005.2 Circuit Theory
300018.2 Digital Systems 1

Spring session

300480.2 Dynamics of Mechanical Systems
300735.2 Automated Manufacturing
300052.2 Power and Machines
300044.2 Microcontrollers and PLCs

Year 3

Autumn session

300764.1 Mechanical Design
300763.1 Advanced Dynamics
300025.3 Electronics

And one Alternate unit

Spring session

300043.3 Mobile Robotics
300971.1 Engineering Project 1

And one Alternate unit

And one elective unit

* Elective units must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary unit)

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 4 (Non-Honours stream)

Autumn session

300972.1 Engineering Project 2
300056.4 Robotics

And one Alternate unit

And one elective unit

*Elective units must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary unit)

Spring session

300075.4 Instrumentation and Measurement
300487.3 Mechatronic Design

And one Alternate unit

And one elective unit

*Elective units must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary unit)

Honours Stream

An Honours stream is offered - see the Honours in Bachelors Awards Policy and associated College Guidelines for the admission criteria.

Year 4 (Honours stream)

Autumn session

300972.1 Engineering Project 2
300056.4 Robotics
300973.1 Engineering Thesis 1: Preliminary Investigations

And one Alternate unit

Spring session

300075.4 Instrumentation and Measurement
300487.3 Mechatronic Design
300974.1 Engineering Thesis 2: Detailed Investigations

And one Alternate unit

Alternate Units

Alternate units may be used to complete one of the Specialisation sub-majors listed below.

300999.1 Computational Fluid Dynamics
301000.1 Computer Aided Engineering
300029.3 Engineering Visualization
300762.2 Fluid Mechanics
300282.2 Industrial Graphics 2: Transition
300310.3 Industrial Graphics 3: 3D Solids
300759.1 Thermal and Fluid Engineering
300760.1 Thermodynamics and Heat Transfer

Specialisation Sub-majors

SM3073.1 Computer Aided Design (Mechatronics)
SM3074.1 Thermal and Fluid Systems

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Civil

KT3118.1

Civil engineering covers the fields of structural design, geotechnical engineering and water engineering, together with infrastructure design and environmental engineering. Graduates will work in the fields of design, construction and management of engineering structures. Projects may cover residential and commercial buildings, highways and airports, water supply and sewerage schemes, etc. You may be an engineer in private industry, government departments, or in city, municipal or shire councils.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300738.3 Surveying for Engineers
300040.2 Mechanics of Materials
300762.2 Fluid Mechanics
300985.1 Soil Mechanics

Spring session

300984.1 Pavement Materials and Design
300733.2 Introduction to Structural Engineering
300737.3 Environmental Engineering
300765.2 Hydraulics

Year 3

Autumn session

300732.2 Structural Analysis
300983.1 Surface Water Hydrology
300736.2 Concrete Structures (UG)
300666.2 Advanced Engineering Topic 1

Spring session

300730.2 Steel Structures
301001.1 Engineering Geomechanics
300971.1 Engineering Project 1
300667.2 Advanced Engineering Topic 2

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 4

Autumn session

300972.1 Engineering Project 2
300969.1 Advanced Engineering Thesis 1: Preliminary Investigations

And one Alternate unit

And one elective unit

* Elective units must be Level 2 or higher

Spring session

300982.1 Transportation Engineering
300488.4 Numerical Methods in Engineering
300970.1 Advanced Engineering Thesis 2: Detailed Investigations

And one Alternate unit

Alternate Units

300986.1 Applied Mechanics
300987.1 Composite Structures
300988.1 Highway Infrastructure
300989.1 Hydrogeology
300990.1 Pile Foundations
300991.1 Statistical Hydrology
300798.1 Sustainability and Risk Engineering
300739.2 Timber Structures (UG)
300994.1 Waste Management
300992.1 Water and Wastewater Treatment
300993.1 Water Resource Engineering

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Construction

KT3119.1

The Construction Key Program consists of core subjects in structural engineering, project management and construction technologies. Graduates will work in the fields of construction, structural design, and project management. Career opportunities include those in the private or public sector on projects covering highways, airports, and residential & commercial buildings.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300738.3 Surveying for Engineers
300040.2 Mechanics of Materials
200486.3 Quantity Surveying 1
300985.1 Soil Mechanics

Spring session

300984.1 Pavement Materials and Design
300733.2 Introduction to Structural Engineering
200468.2 Estimating 1
300707.2 Building 2

Year 3

Autumn session

300732.2 Structural Analysis
300728.2 Construction Planning
300736.2 Concrete Structures (UG)
300666.2 Advanced Engineering Topic 1

Spring session

300730.2 Steel Structures
300727.2 Project Management
300971.1 Engineering Project 1
300667.2 Advanced Engineering Topic 2

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 4

Autumn session

300972.1 Engineering Project 2
300798.1 Sustainability and Risk Engineering
300969.1 Advanced Engineering Thesis 1: Preliminary Investigations

And one Alternate unit

Spring session

301001.1 Engineering Geomechanics
300970.1 Advanced Engineering Thesis 2: Detailed Investigations

And one Alternate unit

And one elective unit

*Elective units must be level 2 or higher

Alternate Units

300986.1 Applied Mechanics
300987.1 Composite Structures
300988.1 Highway Infrastructure
300990.1 Pile Foundations

300739.2 Timber Structures (UG)

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Electrical

KT3120.1

This program includes core subjects from all branches of electrical engineering. Graduates will work in the fields of electronic components, computers, electro-magnetics, power generation and distribution systems, power and control in public utilities, telecommunications, manufacturing, and electrical systems.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300005.2 Circuit Theory
300025.3 Electronics
300057.4 Signals and Systems
300018.2 Digital Systems 1

Spring session

300076.3 Microprocessor Systems
300481.2 Engineering Electromagnetics
300052.2 Power and Machines
300009.3 Control Systems

Year 3

Autumn session

300007.2 Communication Systems
300071.2 Electrical Machines 1
300666.2 Advanced Engineering Topic 1

And one elective unit*

*Elective units must be level 2 or higher

Spring session

300771.1 Power Systems
300069.3 Digital Signal Processing
300971.1 Engineering Project 1
300667.2 Advanced Engineering Topic 2

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 4

Autumn session

300972.1 Engineering Project 2
300772.1 Power Electronics
300969.1 Advanced Engineering Thesis 1: Preliminary Investigations

And one Alternate unit

Spring session

300075.4 Instrumentation and Measurement
300070.4 Electrical Drives
300970.1 Advanced Engineering Thesis 2: Detailed Investigations

And one Alternate unit

Alternate Units

300997.1 Data Communications
300019.4 Digital Systems 2
300029.3 Engineering Visualization
300995.1 Power Quality
300489.2 Radio and Satellite Communication
300996.1 Smart Grids and Distributed Generation
300998.1 Sustainable Energy Systems
300065.4 Wireless Communications

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Mechanical

KT3121.1

In addition to providing training in conventional mechanical engineering subjects, the course structure introduces students to units of study that address sustainability including sustainable design and sustainable energy engineering. Graduates will be well equipped with broad-based skills that meet the demand of Australian industries and are conscious of the need to promote sustainable design and practices. Examples include mechanical and machinery design; manufacturing; energy production; and marketing and management activities. Skills gained are required in industries such as manufacturing, materials handling, automobile, aerospace, mining, building services and infrastructure development.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300035.3 Kinematics and Kinetics of Machines
300040.2 Mechanics of Materials
300762.2 Fluid Mechanics
300282.2 Industrial Graphics 2: Transition

Spring session

300480.2 Dynamics of Mechanical Systems
300735.2 Automated Manufacturing
300760.1 Thermodynamics and Heat Transfer
300761.1 Advanced Mechanics of Materials

Year 3

Autumn session

300764.1 Mechanical Design
300763.1 Advanced Dynamics
300666.2 Advanced Engineering Topic 1

And one elective unit*

*Elective units must be level 2 or higher

Spring session

300759.1 Thermal and Fluid Engineering
300488.4 Numerical Methods in Engineering
300971.1 Engineering Project 1
300667.2 Advanced Engineering Topic 2

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 4

Autumn session

300972.1 Engineering Project 2
300056.4 Robotics
300969.1 Advanced Engineering Thesis 1: Preliminary Investigations

And one Alternate unit

Spring session

301000.1 Computer Aided Engineering
300487.3 Mechatronic Design
300970.1 Advanced Engineering Thesis 2: Detailed Investigations

And one Alternate unit

Alternate Units

300999.1 Computational Fluid Dynamics
300570.3 Human-Computer Interaction
300310.3 Industrial Graphics 3: 3D Solids
300312.3 Industrial Graphics 4: Surface
300044.2 Microcontrollers and PLCs
300043.3 Mobile Robotics
300306.4 Sustainable Design: Sustainable Futures

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Robotics and Mechatronics

KT3122.1

This program provides the skills necessary for the design of smart machines of all types: cruise control in automobiles, pilotless spacecraft, automated factories and medical telerobotics. The course, accompanied by an extensive and integrated hands-on laboratory program, is essentially concerned with the design of intelligent mechanical systems and automation, and includes the study of robotics, computer control, automated manufacturing, microprocessor applications and machine design. Graduates in the program acquire the combined skills of mechanical and computer/electrical engineering that are needed in leading-edge industries such as aerospace systems, the car industry, automation and robotic applications, biomedical engineering, laser systems, and building materials manufacture.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300035.3 Kinematics and Kinetics of Machines
300040.2 Mechanics of Materials
300005.2 Circuit Theory
300018.2 Digital Systems 1

Spring session

300480.2 Dynamics of Mechanical Systems
300735.2 Automated Manufacturing
300052.2 Power and Machines
300044.2 Microcontrollers and PLCs

Year 3

Autumn session

300764.1 Mechanical Design
300763.1 Advanced Dynamics
300025.3 Electronics
300666.2 Advanced Engineering Topic 1

Spring session

300043.3 Mobile Robotics
300971.1 Engineering Project 1
300667.2 Advanced Engineering Topic 2

And one elective unit

* Elective units must be level 2 or higher

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 4

Autumn session

300972.1 Engineering Project 2
300056.4 Robotics
300969.1 Advanced Engineering Thesis 1: Preliminary Investigations

And one Alternate unit

Spring session

300075.4 Instrumentation and Measurement
300487.3 Mechatronic Design
300970.1 Advanced Engineering Thesis 2: Detailed Investigations

And one Alternate unit

Alternate Units

300999.1 Computational Fluid Dynamics
301000.1 Computer Aided Engineering
300029.3 Engineering Visualization
300762.2 Fluid Mechanics
300282.2 Industrial Graphics 2: Transition
300310.3 Industrial Graphics 3: 3D Solids
300759.1 Thermal and Fluid Engineering
300760.1 Thermodynamics and Heat Transfer

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Civil

KT3123.1

Civil engineering covers the fields of structural design, geotechnical engineering and water engineering, together with infrastructure design and environmental engineering. Graduates will work in the fields of design, construction and management of engineering structures. Projects may cover residential and commercial buildings, highways and airports, water supply and sewerage schemes, etc. You may be an engineer in private industry, government departments, or in city, municipal or shire councils.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300738.3 Surveying for Engineers
300040.2 Mechanics of Materials
300762.2 Fluid Mechanics
300985.1 Soil Mechanics

Spring session

300984.1 Pavement Materials and Design
300733.2 Introduction to Structural Engineering
300737.3 Environmental Engineering
300765.2 Hydraulics

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 3

Autumn session

300732.2 Structural Analysis
300736.2 Concrete Structures (UG)
300967.1 Engineering Science Project 1

And one elective unit

*Elective units must be Level 2 or higher

Spring session

300730.2 Steel Structures
300982.1 Transportation Engineering
300968.1 Engineering Science Project 2

And one elective unit

*Elective units must be Level 2 or higher

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Construction

KT3124.1

The Construction Key Program consists of core subjects in structural engineering, project management and construction technologies. Graduates will work in the fields of construction, structural design, and project management. Career opportunities include those in the private or public sector on projects covering highways, airports, and residential & commercial buildings.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300738.3 Surveying for Engineers
300040.2 Mechanics of Materials
200486.3 Quantity Surveying 1
300985.1 Soil Mechanics

Spring session

300984.1 Pavement Materials and Design
300733.2 Introduction to Structural Engineering
200468.2 Estimating 1
300707.2 Building 2

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 3

Autumn session

300732.2 Structural Analysis
300728.2 Construction Planning
300967.1 Engineering Science Project 1

And one elective unit

*Elective units must be Level 2 or higher

Spring session

300730.2 Steel Structures
300727.2 Project Management
300968.1 Engineering Science Project 2

And one elective unit

*Elective units must be level 2 or higher

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Electrical

KT3125.1

This program includes core subjects from all branches of electrical engineering. Graduates will work in the fields of electronic components, computers, electro-magnetics, power generation and distribution systems, power and control in public utilities, telecommunications, manufacturing, and electrical systems.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300005.2 Circuit Theory
300025.3 Electronics
300057.4 Signals and Systems
300018.2 Digital Systems 1

Spring session

300076.3 Microprocessor Systems
300481.2 Engineering Electromagnetics
300052.2 Power and Machines
300009.3 Control Systems

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 3

Autumn session

300007.2 Communication Systems
300071.2 Electrical Machines 1
300967.1 Engineering Science Project 1

And one elective unit

*Elective units must be level 2 or higher

Spring session

300771.1 Power Systems
300069.3 Digital Signal Processing
300968.1 Engineering Science Project 2

And one elective unit

*Elective units must be level 2 or higher

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Mechanical

KT3126.1

In addition to providing training in conventional mechanical engineering subjects, the course structure introduces students to units of study that address sustainability including sustainable design and sustainable energy engineering. Graduates will be well equipped with broad-based skills that meet the demand of Australian industries and are conscious of the need to promote sustainable design and practices. Examples include mechanical and machinery design; manufacturing; energy production; and marketing and management activities. Skills gained are required in industries such as manufacturing, materials handling, automobile, aerospace, mining, building services and infrastructure development.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300035.3 Kinematics and Kinetics of Machines
300040.2 Mechanics of Materials
300762.2 Fluid Mechanics
300282.2 Industrial Graphics 2: Transition

Spring session

300480.2 Dynamics of Mechanical Systems
300735.2 Automated Manufacturing
300760.1 Thermodynamics and Heat Transfer
300761.1 Advanced Mechanics of Materials

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 3

Autumn session

300764.1 Mechanical Design
300763.1 Advanced Dynamics
300967.1 Engineering Science Project 1

And one elective unit

*Elective units must be level 2 or higher

Spring session

300759.1 Thermal and Fluid Engineering
300488.4 Numerical Methods in Engineering
300968.1 Engineering Science Project 2

And one elective unit

*Elective units must be level 2 or higher

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Robotics and Mechatronics

KT3127.1

This program provides the skills necessary for the design of smart machines of all types: cruise control in automobiles, pilotless spacecraft, automated factories and medical telerobotics. The course, accompanied by an extensive and integrated hands-on laboratory program, is essentially concerned with the design of intelligent mechanical systems and automation, and includes the study of robotics, computer control, automated manufacturing, microprocessor applications and machine design. Graduates in the program acquire the combined skills of mechanical and computer/electrical engineering that are needed in leading-edge industries such as aerospace systems, the car industry, automation and robotic applications, biomedical engineering, laser systems, and building materials manufacture.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Full-time - Autumn Intake

Year 2

Autumn session

300035.3 Kinematics and Kinetics of Machines
300040.2 Mechanics of Materials
300005.2 Circuit Theory
300018.2 Digital Systems 1

Spring session

300480.2 Dynamics of Mechanical Systems
300735.2 Automated Manufacturing
300052.2 Power and Machines
300044.2 Microcontrollers and PLCs

Industrial Experience

300741.2 Industrial Experience (Engineering)

Year 3

Autumn session

300764.1 Mechanical Design
300763.1 Advanced Dynamics
300056.4 Robotics
300967.1 Engineering Science Project 1

Spring session

300043.3 Mobile Robotics
300968.1 Engineering Science Project 2

And two elective units

* Elective units must be level 2 or higher

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Major - Information Technology

M3002.1

This major IS NOT available to students enrolled in the Networks or Information Systems Key Programs within the Bachelor of Computing course, and the Bachelor of Information and Communications Technology course. All other students may select this major.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Students must complete 80 credit points as follows

300565.2 Computer Networking
300095.4 Computer Networks and Internets
300580.2 Programming Fundamentals
300585.2 Systems Analysis and Design
300582.2 Technologies for Web Applications
300583.2 Web Systems Development

Choose one of

300575.2 Networked Systems Design
300166.2 Systems and Network Management

Choose one of

300569.2 Computer Security
300104.4 Database Design and Development
300570.3 Human-Computer Interaction

Major - Web Systems Development

M3003.1

This major IS NOT available to students enrolled in the Bachelor of Computing, Bachelor of Computer Science or the Bachelor of Information and Communications Technology courses. All other students may select this major.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Students must complete the following eight units

300104.4 Database Design and Development
300111.2 Developing Web Applications with XML
300570.3 Human-Computer Interaction
300572.2 Information Systems Deployment and Management
300580.2 Programming Fundamentals
300585.2 Systems Analysis and Design
300582.2 Technologies for Web Applications
300583.2 Web Systems Development

Major - Mathematics

M3054.1

This major covers topics in the traditional areas of calculus and algebra. Single and multivariable calculus are covered, as well as topics in linear algebra, analysis and

mathematical modelling. This major is available to all UWS students and may meet the NSW Institute of Teachers accreditation requirements for teaching Mathematics as a first subject in NSW state high schools.

Location

Campus	Mode
Campbelltown Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

Students must complete eight units as follows

Level 1

300672.2 Mathematics 1A
300673.2 Mathematics 1B
200025.2 Discrete Mathematics

Level 2

Choose two units from the level 2 units below

200030.4 Differential Equations
200028.3 Advanced Calculus
200027.2 Linear Algebra

Level 3

200193.2 Abstract Algebra
200022.3 Mathematical Modelling
200023.3 Analysis

Major - Entertainment Computing

M3068.1

This major will deal with a comprehensive focus on the technical and theoretical knowledge of design, development and deployment of software applications in the field of Entertainment Computing.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Students must complete 80 credit points as follows.

300580.2 Programming Fundamentals
300585.2 Systems Analysis and Design
300491.2 Games Technology
300578.3 Professional Development
300565.2 Computer Networking
300104.4 Database Design and Development
300093.4 Computer Graphics
300862.2 Video Games Development

Major - Networking

M3070.1

The Networking Major provides the students with in-depth knowledge for the analysis, design, and implementation of networked systems. It offers the students the opportunity to develop the technical skills needed for management and secure operation of a broad range of systems, including LANs, WANs, wireless networks, distributed systems, and large heterogeneous networks.

Location

Campus	Mode
Campbelltown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students must complete 80 credit points as follows

300565.2 Computer Networking
300138.3 LAN Workshop
300095.4 Computer Networks and Internets
300143.3 Network Security
300575.2 Networked Systems Design
300166.2 Systems and Network Management
300957.1 Parallel and Distributed Computing
300952.1 Wireless and Mobile Networks

Major - Systems Programming

M3071.1

This major is only available to 3506 Bachelor of Computer Science and 3634 Bachelor of Computer Science Advanced students. This major aims to develop graduates with sound skills in the discipline of programming. The focus is on programming at the level of system calls to the underlying operating system and many of the units use the industry standard language for systems programming, namely C/C++, as the vehicle of instruction. There is a strong emphasis on the development of highly efficient and reliable code that can provide support services for higher level application oriented programs, as well as the development of programs suitable for systems administration and management. Practical work utilises the Unix environment. This major is appropriate where a career in systems programming or systems administration is planned, or where the student wishes to develop advanced systems programming skills.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Students must complete 80 credit points as follows.

Students must complete the following six units

300103.3	Data Structures and Algorithms
300167.3	Systems Programming 1
300115.3	Distributed Systems and Programming
300960.3	Mobile Applications Development
300583.2	Web Systems Development
300698.4	Operating Systems Programming

Choose two units from the following

300130.3	Internet Programming
300093.4	Computer Graphics
300165.3	Systems Administration Programming
300368.2	Intelligent Systems
300799.1	Advanced Theoretical Computer Science
300958.1	Social Web Analytics

Major - Networked Systems

M3072.1

This major is only available to 3506 Bachelor of Computer Science and 3634 Bachelor of Computer Science Advanced students. This major aims to develop graduates with sound skills in the discipline of networked computer systems. Recent advances in computer and telecommunications networked systems, particularly those based on TCP/IP, have increased the importance of network technologies in the discipline of computer science. This major covers a wide range of topics including computer communication network concepts and protocols, multimedia systems, Internet standards and technologies, network security, wireless and mobile computing, and distributed systems. The candidates are also introduced to some of the relevant current key research issues of the field.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Students must complete 80 credit points as follows.

Students must complete the following seven units

300565.2	Computer Networking
300128.4	Information Security
300115.3	Distributed Systems and Programming
300952.1	Wireless and Mobile Networks
300095.4	Computer Networks and Internets
300575.2	Networked Systems Design
300143.3	Network Security

Choose one unit from the following

300166.2	Systems and Network Management
300165.3	Systems Administration Programming
300698.4	Operating Systems Programming
300958.1	Social Web Analytics

Major - Systems Security

M3073.1

This major is only available to 3506 Bachelor of Computer Science and 3634 Bachelor of Computer Science Advanced students. Systems Security major aims to develop graduates with sound skills in the discipline of information systems security. With increasing widespread use of computer systems, systems security has become an important issue and data protection is an essential part of today's information systems now. This major covers a broad foundational information security knowledge and security protocols from basic security algorithms to their applications in computer systems and networks. Students will learn fundamental security concepts as well as the practical implementation of the security application programs.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Students must complete 80 credit points as follows.

Students must complete the following six units

300096.5	Computer Organisation
300167.3	Systems Programming 1
300404.2	Formal Software Engineering
300128.4	Information Security
300569.2	Computer Security
300143.3	Network Security

Choose two units from the following

300698.4	Operating Systems Programming
300095.4	Computer Networks and Internets
300799.1	Advanced Theoretical Computer Science
300958.1	Social Web Analytics
300130.3	Internet Programming
300165.3	Systems Administration Programming

Major - Mobile Computing

M3074.1

This major is only available to students enrolled in 3639 BICT, 3684 BICT Adv, 3506 B Computer Science, 3634 B Computer Science (Adv), 3687 B Information Systems or 3688 B Information Systems (Adv). This major covers theories and technologies used for the development of distributed applications for hand-held mobile devices. Students completing this major will understand the advanced principles related to mobile hardware devices, data storage and transmission, and communication networks. In addition they will identify, analyse, and formulate solutions to real-world problems in the mobile domain. In devising these solutions students will also consider principles associated with user interface design,

professional and ethical issues, in particular those relating to security and privacy of user data and user behaviour related to mobile devices and its applications.

Location

Campus	Mode
Campbelltown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students must complete 80 credit points as follows

300976.1 Technologies for Mobile Applications
300960.3 Mobile Applications Development
300952.1 Wireless and Mobile Networks
300961.2 Social Computing
300143.3 Network Security
300104.4 Database Design and Development
300570.3 Human-Computer Interaction
300579.5 Professional Experience

Major - Interactive Industrial Graphics

M3076.1

The objective of this unit set is to introduce students to the industry standard software and hardware employed to generate this type of material, and more importantly this unit exposes students to the techniques used by professionals who currently work in this area of the design community. Engineering drawing is the formal graphical communication language used by professionals engaged in design, manufacture and management of manufactured items.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Students must complete the following eight units

The following are core units.

300302.2 Industrial Graphics 1: Presentation
300282.2 Industrial Graphics 2: Transition
300310.3 Industrial Graphics 3: 3D Solids

The following are drawn from alternative/elective units

300312.3 Industrial Graphics 4: Surface
300961.2 Social Computing
300111.2 Developing Web Applications with XML
300582.2 Technologies for Web Applications
300580.2 Programming Fundamentals

Major - International Design Management

M3077.1

Location

Campus	Mode
Penrith Campus	External

Specialisation Structure

Students must complete the following eight units

The following are core units.

300014.3 Design Management 3: Organisational Skills for Designers
200083.2 Marketing Principles

The following are drawn from alternate Industrial Design units.

200088.3 Brand and Product Management
300012.3 Design Management 1: Product Design Audit
300013.3 Design Management 2: Corporate Image and Identity
300015.3 Design Management 4: Design Process
200094.3 International Marketing
200154.3 Entrepreneurial Management and Innovation

Note: Unit 200154 Enterpreneurial Management and Innovation is no longer offered. Students are required to complete 200863 Leadership and Entrepreneurship.

200863.1 Leadership and Entrepreneurship

Major - Health Informatics

M3083.1

This major is available to all students except those enrolled in the Health Informatics key program within the Bachelor of Computing course.

Location

Campus	Mode
Penrith Campus	External

Specialisation Structure

Students must complete 80 credit points as follows

300104.4 Database Design and Development
300955.1 Healthcare Data Environments
300566.2 Introduction to Health Informatics
300580.2 Programming Fundamentals
300956.1 Healthcare Software and Systems
300582.2 Technologies for Web Applications

Choose one of

300700.5 Statistical Decision Making
300585.2 Systems Analysis and Design

Choose one of

200036.3 Data Mining and Visualisation
300570.3 Human-Computer Interaction

Note: Students in the Bachelor of Computing (Information Systems) are required to select 300585 Systems Analysis and Design in order to comply with course major guidelines.

Major - Innovation Design Management

M3087.1

This unit set focuses on the development of products, services and systems relating to the management and production of industrial design, human and resources capital, implementation and delivery of goods. Key learning outcomes for the set are strategic thinking, organizational and decision making skills, design process, marketing process, innovation and new product development, practice and nature of entrepreneurship as all business entities require enterprising management to enhance their survival ability. Importantly, the unit set shows how to manage change as a change agent, the dynamics relating to it, and the way to innovate through human, resources and production challenges.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Students must complete 80 credit points as follows

The following are core units

300014.3 Design Management 3: Organisational Skills for Designers
200083.2 Marketing Principles

The following are drawn from alternate Industrial Design units

200862.1 Creating Change and Innovation
300012.3 Design Management 1: Product Design Audit
300013.3 Design Management 2: Corporate Image and Identity
300015.3 Design Management 4: Design Process
200571.4 Management Dynamics
200154.3 Entrepreneurial Management and Innovation

Note: Unit 200154 Enterpreneurial Management and Innovation is no longer offered. Students are required to complete 200863 Leadership and Entrepreneurship.

200863.1 Leadership and Entrepreneurship

Sub-major - Geography and Urban Studies

SM1093.1

Students in this major examine the geography of contemporary Australian cities and regions. Geography is the integrated study of people, places and environments. The cutting edge interests of today's Geographers include post-colonialism, the emergence of global information economies, indigenous issues, class and cultural disparities, population movement, sexuality and space, and the global diffusion of popular culture. Urban Studies is a newer discipline focused on social justice within the city, through its critical assessments of peoples' access to scarce urban resources, such as housing, transport, education and employment. The political, economic, and cultural forces that shape cities and urban policy are the key concerns of the Urban Studies curriculum. These applied interests in urban well-being and city structure are the intellectual basis for the Urban Planning profession. The Geography and Urban Studies major is a compulsory component of the University's accredited Planning course.

Location

Campus	Mode
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students must complete four of the following units

Year 1

Autumn Session

101589.2 Cities: Introduction to Urban Studies

Year 2

Autumn Session

101590.2 Cultural and Social Geographies

Spring Session

101591.2 The Economics of Cities and Regions
101646.2 Analysis of Spatial Data

Year 3

Autumn Session

101593.2 Planning the City: Development, Community and Systems
101645.2 Transport, Access and Equity

Spring Session

101694.2 Geographies of Migration
101905.2 Indigenous Cultures: A Global Perspective

Major - Property Investment

SM2050.1

The Property Investment sub-major is available to all undergraduate students other than those completing the Property Key Program or Major. This sub-major assists students in the finance and related areas who want to expand their expertise in property investment.

Location

Campus	Mode
Parramatta Campus	External
Parramatta Campus	Internal

Specialisation Structure

Students must complete four units as follows.

200874.1 Property Development Process
200875.1 Property Finance
200749.2 Property Investment
200873.1 Property Portfolio Management

Sub-major - Systems Administration

SM3001.1

This sub major is available to students who commenced prior to 2013.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Students must complete the following four units

300103.3 Data Structures and Algorithms
300149.3 Operating Systems
300165.3 Systems Administration Programming
300167.3 Systems Programming 1

Sub-major - Web Application Development (for Computing Students)

SM3006.1

This sub-major is only available to students enrolled in the Bachelor of Computing or Bachelor of Information and Communications Technology courses.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Students must complete the following four units

300111.2 Developing Web Applications with XML
300574.2 Internet Structures and Web Servers
300582.2 Technologies for Web Applications
300583.2 Web Systems Development

Note: Unit 300574 Internet Structures and Web Servers will no longer be available from 2013 and students are advised to enrol in unit 300130 Internet Programming in its place.

Sub-major - Mathematics

SM3025.1

This sub-major is available to all students. This sub-major may meet the NSW Institute of Teachers accreditation requirements for teaching Mathematics as a second subject in NSW state high schools.

Location

Campus	Mode
Campbelltown Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

Student must complete 40 credit points as follows

300672.2 Mathematics 1A
300673.2 Mathematics 1B

Choose two of

200028.3 Advanced Calculus
200030.4 Differential Equations
200027.2 Linear Algebra

Sub-major - Construction Economics

SM3029.1

This sub-major is a requirement for membership of the Australian Institute of Quantity Surveyors and is a useful course of study for those interested in the area of cost control and project planning.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Students must complete the following four units

200503.2 Construction Information Systems
300726.2 Estimating 2
200487.3 Quantity Surveying 2
300748.2 Quality and Value Management

Sub-major - Statistics

SM3039.1

This sub-major covers topics in statistics from an introductory level to exploring complex statistical techniques that are used to analyse and interpret data generated in many disciplines. Thus students contemplating honours in any discipline should seriously consider taking this sub-major as part of their undergraduate degree. It is open to all UWS students.

Location

Campus	Mode
Campbelltown Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

The Statistics sub major is available to all UWS undergraduate students except those enrolled in the 3679 Bachelor of Science (Mathematical Science) course.

Students must complete four units as follows

200033.5 Applied Statistics
200037.4 Regression Analysis & Experimental Design
200038.3 Time Series and Forecasting

Choose one of

200263.5 Biometry
200032.5 Statistics for Business
300700.5 Statistical Decision Making

Sub-major - Entertainment Computing

SM3052.1

This sub-major will deal with a broad focus on the technical and theoretical knowledge of design and development of software applications in the field of Entertainment Computing.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Student must complete 40 credit points as follows

300580.2 Programming Fundamentals
300491.2 Games Technology
300862.2 Video Games Development
300093.4 Computer Graphics

Sub-major - Social Media Analytics

SM3053.1

Social media is the pulse of the world. Analysing the enormous amount of data generated by such sites as Facebook, Twitter and Linkedin can be used to inform business decisions and understand how and why society reacts to certain situations. This sub-major will introduce the statistical methods needed to analyse the data from these sites so that businesses are able to use the customer feedback received about their products to inform their business strategy and the impact social media has on society.

Location

Campus	Mode
Campbelltown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students must complete 40 credit points as follows:

300580.2 Programming Fundamentals
300961.2 Social Computing
300958.1 Social Web Analytics

Choose one of

300700.5 Statistical Decision Making
200032.5 Statistics for Business
200263.5 Biometry

Sub-major - IT Support

SM3054.1

The sub-major prepares students to work with, train and support other people in their use of technology. With its practical orientation, it provides a sound foundation in information technology and computing particularly through learning by direct hands-on experience in class, laboratories and in real-world work experience sites. It is for people who want to work with computers within the IT (Information Technology) industry. This sub-major is only available to students enrolled in the 3639 Bachelor of Information and Communications Technology or 3684 Bachelor of Information and Communications Technology (Advanced).

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Student must complete 40 credit points as follows

300150.3 PC Workshop
300138.3 LAN Workshop
300136.4 I.T. Support Practicum

And choose one of

200083.2 Marketing Principles
300167.3 Systems Programming 1

Sub-major - Networking

SM3055.1

The Networking Sub-major provides the students with the basic knowledge for analysis, design, and implementation of networked systems. It offers the students the opportunity to develop the technical skills needed for management and secure operation of the most commonly used networks.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Student must complete 40 credit points as follows

300565.2 Computer Networking
300095.4 Computer Networks and Internets

And choose two of

300575.2 Networked Systems Design
300143.3 Network Security
300166.2 Systems and Network Management
300952.1 Wireless and Mobile Networks
300957.1 Parallel and Distributed Computing

Sub-major - Web Application Development (for Computing Students)

SM3056.1

This sub-major provides a specialisation in developing systems specifically for the world wide web. The sub-major will enable students to develop systems for their own business or seek employment with a business that requires or already has a web presence. The sub-major is only available to students enrolled in the Bachelor of Computing or Bachelor of Information and Communications Technology courses.

Location

Campus	Mode
Campbelltown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Student must complete 40 credit points as follows

300582.2 Technologies for Web Applications
300583.2 Web Systems Development
300111.2 Developing Web Applications with XML
300130.3 Internet Programming

Sub-major - Mobile Computing

SM3057.1

This sub-major covers theories and technologies used for the development of distributed applications for hand-held mobile devices. Students completing this major will understand and apply the advanced principles related to mobile: hardware devices, user interface design, data storage and transmission, and communication networks. This submajor is only available to students enrolled in 3639 BICT, 3684 BICT (Adv), 3506 B Computer Science, 3634 B Computer Science (Adv), 3687 B Information Systems or 3688 B Information Systems (Adv).

Location

Campus	Mode
Campbelltown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Student must complete 40 credit points as follows

300976.1 Technologies for Mobile Applications
300960.3 Mobile Applications Development
300952.1 Wireless and Mobile Networks
300570.3 Human-Computer Interaction

Sub-major - Mobile Application Development (for Non-Computing Students only)

SM3058.1

This sub-major covers theories and technologies used for the development of distributed applications for hand-held mobile devices. Students completing this major will understand and apply the advanced principles related to mobile: hardware devices, user interface design, data storage and transmission, and communication networks. This sub-major is only available for non-computing

students. Students enrolled in 3639 BICT, 3684 BICT (Adv), 3506 B Computer Science, 3634 B Computer Science (Adv), 3687 B Information Systems or 3688 B Information Systems (Adv) are not permitted to take this sub-major.

Location

Campus	Mode
Campbelltown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students must complete 40 credit points as follows

300976.1 Technologies for Mobile Applications
300580.2 Programming Fundamentals
300104.4 Database Design and Development
300570.3 Human-Computer Interaction

Sub-major - Industrial Graphics

SM3059.1

The objective of this unit set is to introduce students to the industry standard software and hardware employed to generate this type of material, and more importantly this unit exposes students to the techniques used by professionals who currently work in this area of the design community. Engineering drawing is the formal graphical communication language used by professionals engaged in design, manufacture and management of manufactured items.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Students must complete 40 credit points as follows

300302.2 Industrial Graphics 1: Presentation
300282.2 Industrial Graphics 2: Transition
300310.3 Industrial Graphics 3: 3D Solids
300312.3 Industrial Graphics 4: Surface

Sub-major - Sustainable Design

SM3060.1

Designers prescribe the use of our limited materials resources with every products that emerge from their work. With an informed approach to design, based on a sound knowledge of materials from their origins to their disposal and contexts of use, a designer can maximise the positive impact of their designing on local and global communities. Students will develop an understanding of the central importance of design in developing a more sustainable world on both production and consumption sides. They will reflect critically on their role as both designers and end-users and will exercise their creative intuition to confidently generate and present designs for sustainability. The aim of this sub-major is to enhance students' ecological literacy and perception of sustainability as a creative opportunity.

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Students must complete 40 credit points as follows

300570.3 Human-Computer Interaction
300304.3 Sustainable Design: Materials Technology
300306.4 Sustainable Design: Sustainable Futures
300735.2 Automated Manufacturing

Sub-major - Design Management

SM3061.1

Location

Campus	Mode
Penrith Campus	External

Specialisation Structure

Students must complete the following four units.

The following is a core unit.

300014.3 Design Management 3: Organisational Skills for Designers

The following are drawn from alternate Industrial Design units.

300012.3 Design Management 1: Product Design Audit
300013.3 Design Management 2: Corporate Image and Identity
300015.3 Design Management 4: Design Process

Sub-major - Health Information Applications

SM3075.1

This sub-major will deal with the application of approaches, tools and techniques and the development of programs appropriate for Health Information systems. This sub-major is available to all students except those enrolled in the Health Informatics key program within the Bachelor of Computing course or the Bachelor of Information Systems.

Location

Campus	Mode
Penrith Campus	External

Specialisation Structure

Students must complete the following four units

300955.1 Healthcare Data Environments
300566.2 Introduction to Health Informatics
300956.1 Healthcare Software and Systems
300582.2 Technologies for Web Applications

Note: 300582 Technologies for Web Applications requires 300580 Programming Fundamentals as a pre-requisite.

Sub-major - Health Information Management

SM3076.1

This sub-major deals with the management of Health Information and the management and analysis of that data via databases. This sub-major is available to all students except those enrolled in the Health Informatics key program within the Bachelor of Computing course.

Location

Campus	Mode
Penrith Campus	External

Specialisation Structure

Students must complete the following four units

300104.4 Database Design and Development
300955.1 Healthcare Data Environments
300566.2 Introduction to Health Informatics
200036.3 Data Mining and Visualisation

Note: The unit 200036 Data Mining and Visualisation is no longer offered by the school. Please contact Prof. Anthony Maeder (A.Maeder@uws.edu.au) for alternate unit advice to be able to complete this sub major.

Sub-major - Systems Security

SM3077.1

This sub-major is only available to students enrolled in the Bachelor of Computing, Bachelor of Information Systems or Bachelor of Information and Communications Technology courses or Bachelor of Information systems

Location

Campus	Mode
Penrith Campus	External

Specialisation Structure

Students must complete the following four units

300128.4 Information Security
300143.3 Network Security
300698.4 Operating Systems Programming
300167.3 Systems Programming 1

Sub-major - Web Application Development (for Non-Computing Students)

SM3078.1

This sub-major is available to all UWS students except those enrolled in the Bachelor of Computing or Bachelor of Information and Communications Technology courses.

Location

Campus	Mode
Penrith Campus	External

Specialisation Structure

Student must complete 40 credit points as follows

300580.2 Programming Fundamentals
300582.2 Technologies for Web Applications
300583.2 Web Systems Development

Choose one of

300569.2 Computer Security
300104.4 Database Design and Development
300111.2 Developing Web Applications with XML
300570.3 Human-Computer Interaction

Sub-major - Astroinformatics

SM3080.1

This unit set aims to produce graduates with excellent computing skills, a thorough grounding in astronomy, and experience in using computers to solve complex, challenging scientific problems. Modern astronomy is strongly driven by large datasets, which require advanced computing procedures to analyse. Students will learn about the science of stars, planets and galaxies; the use of computers in science; and how to formulate and solve challenging problems in modern science using high-level computer skills.

Location

Campus	Mode
Campbelltown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students must complete 40 credit points as follows

300580.2 Programming Fundamentals
300672.2 Mathematics 1A
300966.1 The Cosmos in Perspective: Information and Life
300916.2 Astroinformatics

Sub-major - Structures

SM3065.1

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Student must complete 40 credit points from the units listed below:

300986.1 Applied Mechanics
300987.1 Composite Structures
300739.2 Timber Structures (UG)
300988.1 Highway Infrastructure
300990.1 Pile Foundations

Sub-major - Geotechnical

SM3066.1

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Student must complete the following four units

300990.1 Pile Foundations
300989.1 Hydrogeology
300994.1 Waste Management
300988.1 Highway Infrastructure

Sub-major - Water and Environment

SM3067.1

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Student must complete 40 credit points from the units listed below

300991.1 Statistical Hydrology
300989.1 Hydrogeology
300993.1 Water Resource Engineering
300992.1 Water and Wastewater Treatment
300994.1 Waste Management
300798.1 Sustainability and Risk Engineering

Sub-major - Construction Economics

SM3068.1

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Student must complete the following four units

200503.2 Construction Information Systems
300726.2 Estimating 2
200487.3 Quantity Surveying 2
300748.2 Quality and Value Management

Sub-major - Telecommunications

SM3069.1

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Student must complete 40 credit points from the units listed below

300065.4 Wireless Communications
300997.1 Data Communications
300489.2 Radio and Satellite Communication
300019.4 Digital Systems 2
300029.3 Engineering Visualization

Sub-major - Power Engineering

SM3070.1

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Student must complete the following four units

300995.1 Power Quality
300019.4 Digital Systems 2
300998.1 Sustainable Energy Systems
300996.1 Smart Grids and Distributed Generation

Sub-major - Computer Aided Design (Mechanical)

SM3071.1

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Student must complete the following four units

300999.1	Computational Fluid Dynamics
300306.4	Sustainable Design: Sustainable Futures
300310.3	Industrial Graphics 3: 3D Solids
300312.3	Industrial Graphics 4: Surface

Sub-major - Automation

SM3072.1

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Student must complete the following four units

300999.1	Computational Fluid Dynamics
300044.2	Microcontrollers and PLCs
300043.3	Mobile Robotics
300570.3	Human-Computer Interaction

Sub-major - Computer Aided Design (Mechatronics)

SM3073.1

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Student must complete the following four units

301000.1	Computer Aided Engineering
300029.3	Engineering Visualization
300282.2	Industrial Graphics 2: Transition
300310.3	Industrial Graphics 3: 3D Solids

Sub-major - Thermal and Fluid Systems

SM3074.1

Location

Campus	Mode
Penrith Campus	Internal

Specialisation Structure

Student must complete the following four units

300999.1	Computational Fluid Dynamics
300762.2	Fluid Mechanics
300760.1	Thermodynamics and Heat Transfer
300759.1	Thermal and Fluid Engineering

SCHOOL OF SCIENCE AND HEALTH

Bachelor of Health Science

4656.1

Students should follow the course structure for the course version relevant to the year they commenced. This course version applies to students whose commencement year in this course is 2010 or later.

The course provides a broad introduction to the health sciences with opportunities to major in health promotion, health service management and therapeutic recreation, or to transfer to one of the other health science specialisations at UWS. Subject to meeting admission criteria, transfers are possible to the clinical programs in physiotherapy, occupational therapy and podiatric medicine. Note that transfer places may be limited.

Study Mode
Three years full-time. Students may choose to study at a reduced load.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal

Accreditation
The Bachelor of Health Science (Health Service Management) has Professional Accreditation with the Australasian College of Health Service Management (ACHSM). The Bachelor of Health Science (Therapeutic Recreation) has been granted accreditation from Diversional Therapy Australia (DTA).

Admission
For local students admission is through UAC - Assumed knowledge, any 2 units of English.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Special Requirements
In order to enrol in Second Year Autumn units, all students must have: 1. NSW Health National Criminal Record Check, 2. Prohibited Employment Declaration Form. In order to enrol in Second Year Spring units, all students must have: 1.First Aid Certificate. To be eligible to undertake fieldwork placements in public hospitals, students must comply with vaccination requirements and be prepared to submit a completed Adult Immunisation Card to placement institutions. Details of necessary vaccinations are available from NSW Health.

Course Structure
Qualification for this Key Program requires the successful completion of 240 credit points including the units within one of the following Key Programs.

Recommended Sequence
Students must select and enrol in one of the following Key Programs before selecting individual units.

KT4000.1 Health Promotion
KT4001.1 Health Services Management
KT4002.1 Therapeutic Recreation

Majors

These majors are available to Health Promotion, Health Service Management and Therapeutic Recreation students only.

M4001.1 Health Promotion

The Health Promotion major is not available to students enrolled in the Health Promotion Key Program of the Bachelor of Health Science.

M4002.1 Health Services Management

The Health Services Management major is not available to students enrolled in the Health Services Management Key Program of the Bachelor of Health Science.

M4000.1 Therapeutic Recreation

The Therapeutic Recreation major is not available to students enrolled in the Therapeutic Recreation Key Program of the Bachelor of Health Science.

Majors
The sharing of some common units across the key programs detailed above offers students the opportunity to achieve the Bachelor of Health Science with a key program and a major. Please note that the key program will appear on the testamur whilst the major will appear on the transcript. Qualification for the key program and major programs requires the successful completion of 240 credit points including the units listed in the recommended sequences below.

Bachelor of Health Science (Therapeutic Recreation) with Health Promotion major

or

Bachelor of Health Science (Health Promotion) with Therapeutic Recreation major

Recommended sequence

Full-time

Year 1

Autumn session

400870.2	Population Health and Society
300361.3	Introduction to Human Biology
400783.2	Professional Pathways in Health Science
400871.2	Professional Health Competencies

Spring session

101614.2	Psychology and Health
400863.2	Foundations of Research and Evidence-Based Practice
400732.2	Communication in Health
400285.2	Public Health

Year 2

Autumn session

400867.2	Approaches to Health Promotion
400244.2	Introduction to Leisure and Recreation Theory
400864.3	Research Methods (Quantitative and Qualitative)
400866.3	Culture, Diversity and Health

Spring session

400968.2	Professional Practice in Aged Care and Disability
400246.3	Workplace Learning 1 (Therapeutic Recreation)
400966.2	Health Politics, Policy and Planning
400286.3	Injury Prevention

Year 3

Autumn session

400275.2	Health Planning Project
400252.2	Workplace Learning 2 (Community Placement)
400789.3	Leisure Education Programming and Mental Health
400784.2	Health Promotion Practice 1

Spring session

400785.2	Health Promotion Practice 2
400786.2	Professional Transition Project
400254.2	Therapeutic Recreation Professional Project
400249.2	Ethical and Legal Issues in Health Care

Bachelor of Health Science (Therapeutic Recreation) with Health Services Management major

or

Bachelor of Health Science (Health Services Management) with Therapeutic Recreation major

Recommended Sequence

Full-time

Year 1

Autumn session

400870.2	Population Health and Society
300361.3	Introduction to Human Biology
400783.2	Professional Pathways in Health Science
400871.2	Professional Health Competencies

Spring session

101614.2	Psychology and Health
400277.4	Health Services Management
400863.2	Foundations of Research and Evidence-Based Practice
400732.2	Communication in Health

Year 2

Autumn session

400867.2	Approaches to Health Promotion
400244.2	Introduction to Leisure and Recreation Theory
400864.3	Research Methods (Quantitative and Qualitative)
400866.3	Culture, Diversity and Health

Spring session

400968.2	Professional Practice in Aged Care and Disability
400246.3	Workplace Learning 1 (Therapeutic Recreation)
400966.2	Health Politics, Policy and Planning
400788.3	Health Services Workforce Management

Year 3

Autumn session

400275.2	Health Planning Project
400252.2	Workplace Learning 2 (Community Placement)
400789.3	Leisure Education Programming and Mental Health
400787.2	Health Services Management Practice

Spring session

400249.2	Ethical and Legal Issues in Health Care
400786.2	Professional Transition Project

400254.2 Therapeutic Recreation Professional Project
400279.3 Health Services Financial Management

Bachelor of Health Science (Health Promotion) with Health Services Management major

or

Bachelor of Health Science (Health Services Management) with Health Promotion major

Recommended Sequence

Full-time

Year 1

Autumn session

400870.2 Population Health and Society
300361.3 Introduction to Human Biology
400783.2 Professional Pathways in Health Science
400871.2 Professional Health Competencies

Spring session

101614.2 Psychology and Health
400277.4 Health Services Management
400863.2 Foundations of Research and Evidence-Based Practice
400732.2 Communication in Health

Year 2

Autumn session

400867.2 Approaches to Health Promotion
400864.3 Research Methods (Quantitative and Qualitative)
400866.3 Culture, Diversity and Health

And one elective

Spring session

400285.2 Public Health
400286.3 Injury Prevention
400966.2 Health Politics, Policy and Planning
400788.3 Health Services Workforce Management

Year 3

Autumn session

400787.2 Health Services Management Practice
400275.2 Health Planning Project
400784.2 Health Promotion Practice 1

And one elective

Spring session

400785.2 Health Promotion Practice 2
400786.2 Professional Transition Project
400279.3 Health Services Financial Management
400249.2 Ethical and Legal Issues in Health Care

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

Students who maintain a GPA of 5 or higher may use elective units toward obtaining an additional approved sub-major in Critical Thinking.

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Health Science (Honours)

4657.2

Students should follow the course structure for the course version relevant to the year they commenced. This course version applies to students whose commencement year in this course is 2012 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

High-achieving students in the Bachelor of Health Science can take Honours as an additional year for full-time students (or a longer equivalent for part-time students) at the end of Year 3. Honours is a key early step in the path to leadership in the profession and opens up the world of research. The honours thesis will identify new ways to address real problems and is written under the supervision of experienced academic researchers.

The honours program encourages independent learning, develops research skills and provides an opportunity for deeper investigation in the major field of study. An honours program is a recognised preparation and entry point for postgraduate research studies and the research training is valuable preparation for careers in research and development and analysis in the public and private sectors.

The honours program consists of supervised research on a topic in health science, culminating in the production of a thesis and presentation of a seminar. The coursework component covers research training, research ethics and advanced research methods. Research projects often involve clinical studies and involvement with external health organisations.

The honours program is available to meritorious students in the Bachelor of Health Science and related courses.

Study Mode

One year full-time or two years part-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Campbelltown Campus	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal

Admission

Admission is through direct application to the university. Students must have completed a Bachelor of Health Science from UWS or equivalent degree from another university, with a threshold Admission Average Mark (AAM) equal to or above the minimum of 65.

Entry is competitive and will depend of availability of places and supervisors.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students must have an IELTS equal to 6.5 or above.

Applicants from other universities for an honour program in Sport and Exercise Science will, in addition to the above, be required to demonstrate competence in the use of UWS Sport & Exercise Science laboratory equipment deemed necessary to carry out their proposed research as per the applicant's research statement.

In line with the Honours in Bachelors Award Policy:

Admission to an end-on or embedded honours program is determined on the basis of all of the four following criteria being met:

- a) Achievement of a threshold Admission Average Mark (AAM) equal to or above the minimum of 65; and
- b) Statement of Intent or School equivalent; and
- c) Appointment of a principal supervisor by the Head of School; and
- d) Demonstrated satisfactory academic writing skills appropriate to the discipline.
- A School Academic Committee may, on recommendation of the School Honours Coordinator, rank applicants on the basis of AAMs if the Head of School indicates the number of applications exceeds the availability of supervised places

Course Structure

Qualification for this award requires the successful completion of 80 credit points including the units listed in the recommended sequence below.

Recommended Sequence

Start Year Intake

Full-time

Year 1

Autumn session

400872.2 Honours Research Design and Methodology
400898.2 Honours Thesis in Health Science A

Spring session

400899.2 Honours Thesis in Health Science B

Part-time

Year 1

Autumn session

400872.2 Honours Research Design and Methodology

Spring session

400898.2 Honours Thesis in Health Science A

Year 2

Autumn

400900.2 Honours Thesis in Health Science C

Spring

400901.2 Honours Thesis in Health Science D

Mid Year Intake

Year 1

Spring session

400898.2 Honours Thesis in Health Science A

Year 2

Autumn session

400872.2 Honours Research Design and Methodology
400900.2 Honours Thesis in Health Science C

Spring session

400901.2 Honours Thesis in Health Science D

Bachelor of Health Science (Paramedicine)

4669.1

Paramedics play an integral role in the health system, responding to emergencies involving patients with acute and sub-acute health problems in a range of diverse and uncontrolled settings. Paramedics provide unscheduled, out-of-hospital care to patients of all ages, dealing with health complaints that span the spectrum of illness and injury severity and complexity. This contemporary course has a strong evidence-based focus and uses innovative blended learning and assessment strategies, together with diverse clinical placements, to develop high level practical and clinical decision making skills. Completion of the course will enable you to work effectively as a paramedic in an ambulance service, the private paramedical industry, or the defence forces.

Note: This course involves a mandatory health and medical assessment that must be completed prior to enrolling in 401067 Paramedic Practice 1 offered in Spring Year 1, and undertaking the associated ambulance service clinical

placement. Students who are unable to pass the assessment by the end of Autumn session in the first year of the course will be required to take a leave of absence pending re-assessment in the following year, or transfer to an alternative health science degree such as 4656 Bachelor of Health Science.

Study Mode
Three years full-time

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal

Accreditation
The Bachelor of Health Science (Paramedicine) has been granted preliminary approval for accreditation from the Council of Ambulance Authorities.

Inherent requirements
There are inherent requirements for this course that you must meet in order to complete your course and graduate. Make sure you read and understand the requirements for this course online.

Admission
Assumed knowledge, any 2 units of English.

Recommended studies, Mathematics, Physics and/or Biology.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Special Requirements
In order to enrol in Second Semester First Year units, all students must have: 1. National Criminal Record Check (National Police Certificate), 2. Prohibited Employment Declaration Form prior to 1st June 2010 or a Working with Children Check Student Declaration after 1st June 2010. 3. First Aid Certificate (including cardiopulmonary resuscitation). Clinical placements are a mandatory component of this course. To be eligible for clinical placements, students must; 1. Comply with NSW Health vaccination requirements and be prepared to submit a completed Adult Immunisation Card to placement institutions. NSW Health can provide details of necessary vaccinations. 2. Receive a clearance from an authorised UWS-approved provider after successfully completing a health/medical/fitness assessment as prescribed by the University. 3. Students must also comply with the NSW Health Records and Information Privacy Act (2004) and complete a relevant declaration. In clinical placement units, students must wear the UWS paramedicine uniform, which complies with NSW uniform requirements. This uniform will be purchased at the student's expense.

Course Structure
Qualification for this award requires the successful completion of 240 credit points as per the recommended sequence below.

Recommended sequence

Year 1

Autumn session

401066.1	Introduction to Paramedicine
400868.3	Human Anatomy and Physiology 1
400870.2	Population Health and Society
400871.2	Professional Health Competencies

Spring session

401067.1	Paramedic Practice 1
400869.3	Human Anatomy and Physiology 2
400863.2	Foundations of Research and Evidence-Based Practice
400732.2	Communication in Health

Year 2

Autumn session

401068.1	Paramedic Practice 2
401095.1	Mental Health and Substance Abuse
400138.3	Pathophysiology 1
400866.3	Culture, Diversity and Health

Spring session

401073.1	Paramedic Practice 3
401074.1	Out-of-hospital Medical Care 1
400981.2	Clinical Pharmacology
101614.2	Psychology and Health

Year 3

Autumn session

401069.1	Paramedic Practice 4
401096.1	Out-of-hospital Medical Care 2
401072.1	Obstetrics and Paediatrics
400864.3	Research Methods (Quantitative and Qualitative)

Spring session

401071.1	Traumatic and Environmental Emergencies
401097.1	Clinical Leadership and Patient Safety
400786.2	Professional Transition Project
400249.2	Ethical and Legal Issues in Health Care

Bachelor of Health Science (Personal Development, Health and Physical Education)

4659.4

Students should follow the course structure for the course version relevant to the year they commenced. This course version applies to students whose commencement year in this course is 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

The Personal Development, Health and Physical Education (PDHPE) program brings together a comprehensive foundation of health sciences, understanding of physical activity and personal development, and skills in interacting with people. Graduates stand out for their holistic understanding of the concepts of health and physical activity in personal development. The program is a popular pathway to a Master of Teaching degree, and then on to a teaching career. Teaching opportunities can be extended beyond PDHPE by studying electives, such as science and mathematics. Graduates also work as personal trainers and sports coaches and new opportunities are opening up in community-based recreation.

The course explores challenging areas of personal development, including youth health issues, sexuality, drugs, psychology and risk-taking behaviours, as well as general health science, including human biology, health systems, health promotion and research. Facilities are state of the art, including a new gymnasium and a renovated dance and gym studio, and practical experience is a strong feature of the program.

Study Mode
Three years full-time.

Location

Campus	Attendance	Mode
Penrith Campus	Full Time	Internal

Accreditation
Graduates may be eligible to apply for accreditation with the NSW Institute of Teachers following the successful completion of a recognised teaching qualification. There is no professional accrediting body for the PDHPE specialisation.

Admission
For local students admission is through UAC. Assumed knowledge: any 2 units of English. Recommended Studies: Personal Development, Health and Physical Education or Community and Family Studies.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International with IELTS equal to 6.5 or above.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Special Requirements
In order to enrol in Second Year Autumn units, all students must have: 1. NSW Health National Criminal Record Check, 2. Prohibited Employment Declaration Form. In order to enrol in Second Year Spring units, all students must have a First Aid Certificate. To be eligible to undertake fieldwork placements in public hospitals, students must comply with vaccination requirements and be prepared to submit a completed Adult Immunisation Card to placement institutions. Details of necessary vaccinations are available from NSW Health

Course Structure
Note: For placement in schools, students must complete a Child Protection Policies and Procedures module. This requirement is completed through tutorials and assessment in 400871 Professional Health Competencies.

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequence below.

Note: at least 60 credit points must be at Level 3 or above.

Recommended sequence

Year 1

Autumn session

400870.2	Population Health and Society
300361.3	Introduction to Human Biology
400880.2	Fundamentals of Exercise Science
400871.2	Professional Health Competencies

Spring session

400808.4	Outdoor Recreation
400891.2	Movement and Skill Development
101614.2	Psychology and Health
400732.2	Communication in Health

Year 2

Autumn session

400867.2	Approaches to Health Promotion
401055.1	Sport and Exercise Psychology
400866.3	Culture, Diversity and Health

And one elective

Spring session

400892.2	Physical Activity, Nutrition and Health
400798.3	PDHPE: Games for Diverse Groups
400863.2	Foundations of Research and Evidence-Based Practice
400962.2	Foundations of Wellbeing

Year 3

Autumn session

401169.2	Coaching Sport and Recreation Activities
400894.2	Contemporary Youth Health Issues
400895.2	Aquatic Sports

And one elective

Spring session

400896.1	Gymnastics and Dance
401056.1	Applied Exercise Science for Personal Trainers and Coaches

And two electives

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

Students who maintain a GPA of 5 or higher may use elective units toward obtaining an additional approved sub-major in Critical Thinking.

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Health Science (Sport and Exercise Science)

4658.4

Students should follow the course structure for the course version relevant to the year they commenced. This course version applies to students whose commencement year in this course is 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

Sport and exercise science encompasses the science that underpins health, physical activity and exercise, and their applications to the design, implementation and evaluation of exercise programs. There are a range of career options in health and fitness centres, for example as a personal trainer, a health and fitness specialist or a fitness assessor, in government agencies associated with sport, physical activity and health, in teaching and research, and with professional sporting groups, rehabilitation clinics and hospitals. If you gain higher-level accreditation as an exercise physiologist, you will also be able to provide healthcare services funded by Medicare (Australian Government).pharmaceutical, health or food industries. Alternatively, graduates who elect studies in the physical sciences, mathematics or business are well placed for careers in the manufacturing industry.

The course combines studies in exercise physiology, sports psychology, biomechanics motor control and exercise prescription with a broad understanding of biomedicine and various health science fields to develop the professional competencies important for ethical and safe practice and high quality care and the skills to work in multidisciplinary teams. Facilities are state-of-the-art, centred on an Exercise and Sport Science Laboratory complex, and practical experience is a strong feature of the program.

Study Mode

Three years full-time. Students may choose to study at a reduced load.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal

Accreditation

The Bachelor of Health Science (Sport and Exercise Science) course is accredited at the level of exercise science by the National University Course Accreditation Program of Exercise and Sports Science Australia (ESSA). Graduates are eligible for exercise science accreditation.

Admission

Assumed Knowledge: Any 2 units of English

Recommended Studies: Any 2 units of English, plus four units of Science and/or Mathematics. PDHPE can be counted as a science unit for this course.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS

Special Requirements

In order to enrol in Second Year Autumn units, all students must have: 1. Working with Children Check Student Declaration 2. National Police Check 3. Adult Vaccination Record Card 4. First Aid Certificate

Course Structure

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequence below.

Recommended sequence

Full-time

Year 1

Autumn session

400880.2 Fundamentals of Exercise Science
400868.3 Human Anatomy and Physiology 1
400866.3 Culture, Diversity and Health
400871.2 Professional Health Competencies

Spring session

400881.3 Functional Anatomy
400869.3 Human Anatomy and Physiology 2
400863.2 Foundations of Research and Evidence-Based Practice
101614.2 Psychology and Health

Year 2

Autumn session

401140.1 Biomechanics
401142.1 Exercise Physiology
400883.2 Exercise Bioenergetics
401150.1 Exercise Testing and Measurement

Spring session

401143.1 Exercise Prescription I
401055.1 Sport and Exercise Psychology
401148.1 Strength and Conditioning
401141.1 Exercise Nutrition

Year 3

Autumn session

401144.1 Exercise Prescription II
401149.1 Exercise Physiology Across the Lifespan
400886.2 Motor Control and Skill Acquisition
400864.3 Research Methods (Quantitative and Qualitative)

Spring session

401147.1 Applied Biomechanics
401146.1 Applied Physiology
400904.1 Work Experience in Sport and Exercise Science
401145.1 Exercise for Health and Disease Prevention

Bachelor of Medical Science

3673.1

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2012 or later.

This degree comprises three areas of major: biomedical science, medicinal chemistry and anatomy & physiology. The biomedical science major focuses on microbiology, biochemistry, molecular biology and aspects of health. The medicinal chemistry major focuses on chemistry and biochemistry, while the anatomy & physiology major focuses on anatomy, physiology and pharmacology. Graduates of this degree will find employment in areas such as medical research laboratories, hospital laboratories and in pathology laboratories and be well suited for positions in the pharmaceutical, medical sales and various research and quality control laboratories, as well as further study including research degrees, graduate pharmacy and graduate medicine degrees.

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Hawkesbury Campus	Full Time	Internal

Accreditation

The Medicinal Chemistry major within the Bachelor of Medical Science is accredited by the Royal Australian Chemical Institute (RACI) for normal entry of a graduate to the Chartered Chemist qualification.

Admission

Assumed knowledge required: At least two of biology, chemistry, mathematics and physics.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Recommended Sequence

Start Year Intake

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300825.2 Introduction to Anatomy

Choose one of

300800.2 Essential Chemistry 1
300808.2 Introductory Chemistry

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300818.1 Introduction to Physiology

Choose one of

300830.2 Analysis of Change
300831.2 Quantitative Thinking
300672.2 Mathematics 1A
200263.5 Biometry

Year 2 - Year 3

Students must then select one of the following Majors

Anatomy and Physiology Major - Campbelltown only

M3061.1 Anatomy and Physiology

Biomedical Science Major - Campbelltown and Hawkesbury

M3062.1 Biomedical Science

Medicinal Chemistry Major - Campbelltown only

M3060.1 Medicinal Chemistry

Recommended Sequence

Mid Year Intake

The sequence of units for Year 1 for students Mid Year Intake is different for each major. Please see the details under each major in the links above.

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points) including the sub-majors listed below.

Sub-majors

SM3048.1 Climate Change
SM3044.1 Microbiology
SM3050.1 Physics

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

Students who maintain a GPA of 5 or higher may use elective units toward obtaining an additional approved sub-major in Critical Thinking.

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Medical Science (Advanced)

3682.1

If you enjoy being constantly challenged and extended by your studies and are thinking about a career involving medical science or pharmaceutical research, then the UWS Medical Science (Advanced) degree is for you! This degree equips students with both specialised knowledge and enhanced inquiry skills in medicinal Chemistry OR, biomedical science OR anatomy and physiology. The Medical Science (Advanced) degree is specifically designed to provide initial training for a range of careers in medical science involving research and inquiry. You will be partnered with experienced academic researchers and their research teams, and participate in the University's exciting research activities to facilitate your transition to an Honours year or directly into a range of exciting career opportunities available to high-achieving science graduates.

Further studies can be pursued (Masters (Hon) or PhD degree) leading to a research or academic career. Information and details on how to apply for Honours will be provided to you as you progress through your Bachelor degree, or you can find out more at

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Hawkesbury Campus	Full Time	Internal

Accreditation

The Nanotechnology and Medicinal Chemistry majors for this degree are accredited by the Royal Australian Chemical Institute (RACI) for normal entry of a graduate to the Chartered Chemist qualification.

Admission

Assumed knowledge required: Minimum ATAR of 90 with assumed knowledge of HSC mathematics and at least two of biology, chemistry and/or physics. Students must maintain a Grade Point Average (GPA) of 5.0 or above to continue their enrolment in the course. As part of the admission/enrolment process students will be required to sign a statement acknowledging that they understand that a minimum 5.0 GPA is required to remain in the program and that if this GPA is not maintained that they will be automatically transferred into the standard program. Students in the base Bachelor of Medical Science suite of programs who achieve a GPA of 5.0 or greater at the end of their first year of study may be admitted into the Advanced Science program if sufficient places are available.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

International applicants must apply directly to the University of Western Sydney via UWS International.

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Details of minimum English proficiency requirements and acceptable proof can be found on the Universities Admissions Centre website (UAC).

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Recommended Sequence

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Medicinal Chemistry

Students completing the Bachelor of Medical Science (Advanced) with a major in Medicinal Chemistry will complete the following course structure.

M3063.1 Medicinal Chemistry

Anatomy and Physiology

Students completing the Bachelor of Medical Science (Advanced) with a major in Anatomy and Physiology will complete the following course structure.

M3064.1 Anatomy and Physiology

Biomedical Science

Students completing the Bachelor of Medical Science (Advanced) with a major in Biomedical Science will complete the following course structure.

M3065.1 Biomedical Science

Nanotechnology

Students completing the Bachelor of Medical Science (Advanced) Nanotechnolgy will complete the following course structure.

This key program is available to students who commenced prior to 2013

KT3065.1 Nanotechnology

Bachelor of Medical Science (Honours)

3610.2

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2011 or later.

The Honours program encourages independent learning and research, further develops academic ability, provides the opportunity to pursue undergraduate studies to a more advanced level, deepens intellectual understanding in the major field of study and develops research skills. An Honours degree is a recognised point of entry for postgraduate research studies at PhD level and enhances a graduate's ability to perform at a high level in a commercial or public organisation. The Honours program consists of a rigorous program of supervised research on a medically related topic, culminating in the production of a thesis and presentation of a final seminar. Students enrol in a 60 credit point honours project and either a 20 credit point research methodology and experimental design unit or a 20 credit point advanced topics and research skills unit, allowing them to explore more advanced topics, including wider areas of research and their applications in science technology and medicine. Although the Honours course is available on several different campuses, some or all of the lectures, workshops and seminars may be held centrally at a single campus to ensure that students are exposed to as wide a range of research topics as possible. The course can provide opportunities for direct commercial and industrial involvement with a diverse range of organisations through the provision of, and joint supervision of, research projects.

Study Mode

One year full-time or two years part-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Campbelltown Campus	Part Time	Internal
Hawkesbury Campus	Full Time	Internal
Hawkesbury Campus	Part Time	Internal
Parramatta Campus	Full Time	Internal
Parramatta Campus	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal

Course Structure

Qualification for this award requires the successful completion of 80 credit points as per the recommended sequence below.

Please note: Students must enrol in 300747 Advanced Topics and Research Skills and 300412 Science, Technology and Environment Honours Projects in both 1H and 2H sessions.

Recommended Sequence

Full-time

Year 1

1H

300747.2 Advanced Topics and Research Skills
300412.3 Science, Technology and Environment Honours Project

2H

300747.2 Advanced Topics and Research Skills

300412.3 Science, Technology and Environment Honours Project

Part-time

Year 1

1H

300747.2 Advanced Topics and Research Skills

2H

300747.2 Advanced Topics and Research Skills

Year 2

1H

300412.3 Science, Technology and Environment Honours Project

2H

300412.3 Science, Technology and Environment Honours Project

Bachelor of Natural Science (Advanced)

3683.1

Our world and its resources are under ever increasing pressure, and we need enthusiastic, switched-on people with new ideas and innovative approaches to address these challenges. We are seeing a bigger population, technology advancements and environmental issues, all of which are placing unprecedented pressure on our natural resources and the biosphere. An Advanced degree in the Natural Sciences will enable you to understand these competing pressures and contribute to the development of sustainable strategies to drive change. This is a challenging program that will stretch you - it includes advanced coursework, extension activities and fundamental research training. You will be partnered with experienced academic researchers and contribute to the University's exciting research activities. The degree will allow you to undertake any of the Natural Science programs in Animal Science, Environmental Management or Sustainable Agriculture and Food Security. Students undertake three Advanced Science projects, Advanced Science Project A, B and C. An Honours year is available to high-achieving students and further studies can be pursued (Masters (Hon) or PhD degree) leading to a research or academic career.

Information and details on how to apply for Honours will be provided to you as you progress through your Bachelor degree, or you can find out more at

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Hawkesbury Campus	Full Time	Internal

Admission

Entry requirements: Minimum ATAR of 90 with assumed knowledge of HSC mathematics and at least two of biology, chemistry and/or physics. Students must maintain a Grade Point Average (GPA) of 5.0 or above to continue their enrolment in the course. As part of the admission/ enrolment process students will be required to sign a statement acknowledging that they understand that a minimum 5.0 GPA is required to remain in the program and that if this GPA is not maintained that they will be automatically transferred into the standard program.

Students in the base Natural science courses within the suite who achieve a GPA of 5.0 or greater at the end of their first year of study may be admitted into the Bachelor of Natural Science Advanced program if sufficient places are available.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

International applicants must apply directly to the University of Western Sydney via UWS International.

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Details of minimum English proficiency requirements and acceptable proof can be found on the Universities Admissions Centre website (UAC).

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Students in the Bachelor of Natural Science (Advanced) must follow one of the study programs listed below.

KT3097.1 Animal Science
KT3098.1 Environmental Management
KT3099.1 Sustainable Agriculture and Food Security

Students enrolled in the Bachelor of Natural Science (Advanced) must complete the units appropriate to their chosen study program and the three project units listed below. These Advanced Science Project units are taken in Semesters 3, 4 and 5.

300937.1 Advanced Science Project A
300938.1 Advanced Science Project B
300910.1 Advanced Science Project C

Bachelor of Natural Science (Animal Science)

3670.1

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2012 or later.

Interactions between people and animals are increasing due to our ever-increasing reliance on animals for companionship and food production, whilst we also strive to understand the pressures placed on our unique wildlife. A Bachelor of Natural Science (Animal Science) will enable you to develop a deep understanding of these issues, through studies of animal behaviour, animal health and welfare, animal nutrition, animal production, animal reproduction, human-animal interactions, vertebrate biodiversity, and wildlife science. Throughout your studies, you will have access to diverse on-campus animal facilities including reptiles, native mammals, horses, sheep, cattle and deer and off-campus animal professionals and organisations such as wildlife parks, zoos, farms and horse studs. There are a range of majors (conservation biology, zoology) and sub-majors (environmental sustainability and management) offered in Natural Science and Science that can add diversity and/or focus to your degree, to enable your degree to be matched to your career aspirations. A variety of compelling and exciting career paths are available to graduates of this program, including international opportunities in the many fields of animal science.

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Hawkesbury Campus	Full Time	Internal

Admission

Assumed Knowledge: Any two units of English and Mathematics.

Recommended Studies: One unit of Biology, Chemistry, Geography, Earth and Environmental Science or Agriculture.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Recommended Sequence

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Start Year Intake

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300807.1 Human Animal Interactions
300813.1 Wildlife Studies

Spring session

300810.1 Resource Sustainability
300831.2 Quantitative Thinking
300801.1 Animal Science

And one elective

Year 2

Autumn session

300931.1 Integrated Science
300834.1 Animal Health and Welfare
300853.1 Animal Nutrition and Feeding

And one elective

Spring session

300932.1 Natural Science Research Methods
300835.1 Animal Reproduction

Choose one of

300836.1 Botany
300838.1 Comparative Physiology

And one elective

Year 3

Autumn session

300913.1 Field Project 1
300878.1 Animal Behaviour
300854.1 Animal Production

And one elective

Spring session

300914.1 Field Project 2
300861.1 Vertebrate Biodiversity

And two electives

Mid Year Intake

Year 1

Spring session

300810.1 Resource Sustainability
300831.2 Quantitative Thinking
300801.1 Animal Science
300811.1 Scientific Literacy

Autumn session

300802.1 Biodiversity
300813.1 Wildlife Studies
300807.1 Human Animal Interactions

And one elective

Year 2

Spring session

300932.1 Natural Science Research Methods
300835.1 Animal Reproduction

Choose one of

300836.1 Botany
300838.1 Comparative Physiology

And one elective

Autumn session

300913.1 Field Project 1
300834.1 Animal Health and Welfare
300853.1 Animal Nutrition and Feeding
300931.1 Integrated Science

Year 3

Spring session

300914.1 Field Project 2
300861.1 Vertebrate Biodiversity

And two electives

Autumn session

300854.1 Animal Production
300878.1 Animal Behaviour

And two electives

Major and Sub-major elective spaces

Elective units may be used toward obtaining an additional approved major (80 credit points) or sub-major (40 credit points) including the majors and sub-majors listed below.

Majors

M3049.1 Conservation Biology
M3056.1 Zoology

Sub-majors

SM3062.1 Aquatic Environments
SM3048.1 Climate Change
SM3042.1 Conservation Biology
SM3045.1 Zoology

Major and Sub-major elective spaces

Elective units may be used toward obtaining an additional approved major (80 credit points) or sub-major (40 credit points).

Students who maintain a GPA of 5 or higher may use elective units toward obtaining an additional approved sub-major in Critical Thinking.

UWS offers majors and sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Natural Science (Environment and Health)

3672.1

The air we breathe, the water we drink, the food we eat, and the places we live, work and play all have major impacts on our health and well-being. Health scares such as swine/bird flu, obesity, cancers and asthma have all been connected to our environmental conditions. A Bachelor of Natural Science (Environment and Health) will equip you to explore the diverse range of natural and built-environment challenges that confront us, from the mitigation of human health impacts of global climate change through to the more localised issues of air and water quality, waste management, food security, environmental noise and healthy communities. The major areas of study addressed within the program include air pollution; community studies; emergency management; environmental regulation and policy; environmental monitoring; environmental planning; environmental protection; epidemiology; food safety; noise, occupational environment; risk assessment; sustainable environmental management; toxicology; urban development and water pollution. A variety of fulfilling career paths are available to graduates of this program.

Study Mode

Six years in external part-time offering.

Location

Campus	Attendance	Mode
Hawkesbury Campus	Part Time	External

Accreditation

This course is currently accredited by Environmental Health Australia.

Admission

Assumed Knowledge: Any two units of Mathematics and Science or equivalent.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and

International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

This course is not available to International Students.

Course Structure

Recommended Sequence

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Start Year Intake

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300824.1 Management of Aquatic Environments
300808.2 Introductory Chemistry

Spring session

300810.1 Resource Sustainability
300831.2 Quantitative Thinking
300821.1 Environment and Health
300814.1 Water Quality Assessment and Management

Year 2

Autumn session

300931.1 Integrated Science
300872.1 Epidemiology
300840.1 Environmental Planning and Climate Change
300844.1 General Microbiology

Spring session

300932.1 Natural Science Research Methods
300877.1 Toxicology
300841.1 Environmental Regulation and Policy
300859.1 Food Safety

Year 3

Autumn session

300913.1 Field Project 1
300919.1 Occupational Health and Safety
300858.1 Environmental Risk Management
300852.1 Air Quality and Climate Change

Spring session

300914.1 Field Project 2
300860.1 Urban Environment
300867.1 Disease Prevention and Control
300880.1 Disaster and Emergency Management

Mid Year Intake

Full Time

Year 1

Spring session

300810.1 Resource Sustainability
300811.1 Scientific Literacy
300821.1 Environment and Health
300814.1 Water Quality Assessment and Management

Autumn session

300802.1 Biodiversity
300831.2 Quantitative Thinking
300824.1 Management of Aquatic Environments
300808.2 Introductory Chemistry

Year 2

Spring session

300932.1 Natural Science Research Methods
300877.1 Toxicology
300841.1 Environmental Regulation and Policy
300859.1 Food Safety

Autumn session

300913.1 Field Project 1
300931.1 Integrated Science
300840.1 Environmental Planning and Climate Change
300844.1 General Microbiology

Year 3

Spring session

300914.1 Field Project 2
300860.1 Urban Environment
300867.1 Disease Prevention and Control
300880.1 Disaster and Emergency Management

Autumn session

300872.1 Epidemiology
300919.1 Occupational Health and Safety
300858.1 Environmental Risk Management
300852.1 Air Quality and Climate Change

Part Time

Year 1

Spring session

300821.1 Environment and Health
300811.1 Scientific Literacy

Autumn session

300802.1 Biodiversity
300831.2 Quantitative Thinking

Year 2

Spring session

300810.1 Resource Sustainability
300877.1 Toxicology

Autumn session

300844.1 General Microbiology
300931.1 Integrated Science

Year 3

Spring session

300932.1 Natural Science Research Methods
300841.1 Environmental Regulation and Policy

Autumn session

300808.2 Introductory Chemistry
300840.1 Environmental Planning and Climate Change

Year 4

Q3 session

300880.1 Disaster and Emergency Management

Spring session

300859.1 Food Safety

Autumn session

300824.1 Management of Aquatic Environments
300852.1 Air Quality and Climate Change

Year 5

Spring session

300814.1 Water Quality Assessment and Management
300867.1 Disease Prevention and Control

Autumn session

300872.1 Epidemiology
300919.1 Occupational Health and Safety

Year 6

Spring session

300914.1 Field Project 2
300860.1 Urban Environment

Autumn session

300913.1 Field Project 1
300858.1 Environmental Risk Management

Bachelor of Natural Science (Environmental Management)

3671.1

History has shown that if we don't effectively manage our environment, we will degrade it - possibly to the point where it can no longer sustain us. Environmental managers are concerned with ensuring the ecological sustainability of human development and minimising the size of our "ecological footprint". A Bachelor of Natural Science (Environmental Management) will develop your problem solving skills and equip you to work collaboratively with both community members and professional practitioners to develop innovative policy and strategies that address the increasingly complex causes of today's environmental problems. Issues include urban development, global climate change, persistent organic pollutants (POPs), decreasing biodiversity, deteriorating air and water quality, and sustainable use of natural resources. The major areas embodied within the program include assessment and management of aquatic environments water quality assessment and management; introduction to wildlife; sustainable land and resource use; Indigenous land management; environmental planning; climate change science; environmental regulation and policy; environmental risk management and urban development. The majors (aquatic and conservation biology) and sub-majors (environmental sustainability and management) offered in Natural Science and Science can add diversity and/or focus to your degree, to help match your studies to your career aspirations.

Study Mode
Three years full-time.

Location

Campus	Attendance	Mode
Hawkesbury Campus	Full Time	Internal

Accreditation
This course is currently accredited by Environmental Health Australia.

Admission
Assumed Knowledge: Any two units of Science (Biology or Chemistry recommended) and any two units of English.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English

proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Recommended Sequence

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Note - At least 60 credit points must be at Level 3 or above (one elective must be at least a Level 3 unit)

Year 1

Start Year Intake

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300813.1 Wildlife Studies
300824.1 Management of Aquatic Environments

Spring session

300810.1 Resource Sustainability
300831.2 Quantitative Thinking
300814.1 Water Quality Assessment and Management
300812.1 Understanding Landscape

Year 2

Autumn session

300931.1 Integrated Science
101878.1 Indigenous Landscapes
300840.1 Environmental Planning and Climate Change

And one elective

Spring session

300932.1 Natural Science Research Methods
300875.1 Landuse and the Environment
300841.1 Environmental Regulation and Policy

And one elective

Year 3

Autumn session

300913.1 Field Project 1
300858.1 Environmental Risk Management

And two electives

Spring session

300914.1 Field Project 2
300860.1 Urban Environment
300870.1 Water in the Landscape

And one elective

Mid Year Intake

Year 1

Spring session

300810.1 Resource Sustainability
300811.1 Scientific Literacy
300814.1 Water Quality Assessment and Management
300812.1 Understanding Landscape

Autumn session

300802.1 Biodiversity
300831.2 Quantitative Thinking
300813.1 Wildlife Studies
300824.1 Management of Aquatic Environments

Year 2

Spring session

300932.1 Natural Science Research Methods
300875.1 Landuse and the Environment
300841.1 Environmental Regulation and Policy

And one elective

Autumn session

300913.1 Field Project 1
300931.1 Integrated Science
300840.1 Environmental Planning and Climate Change
101878.1 Indigenous Landscapes

Year 3

Spring session

300914.1 Field Project 2
300860.1 Urban Environment
300870.1 Water in the Landscape

And one elective

Autumn session

300858.1 Environmental Risk Management

And three electives

Major and Sub-major elective spaces

Elective units may be used toward obtaining an additional approved major (80 credit points) or sub-major (40 credit points) including the majors and sub-majors listed below.

Majors

M3046.1 Aquatic Biology
M3049.1 Conservation Biology
M3084.1 Environmental Consulting

Sub-majors

SM3062.1 Aquatic Environments
SM3048.1 Climate Change
SM3042.1 Conservation Biology

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

Students who maintain a GPA of 5 or higher may use elective units toward obtaining an additional approved sub-major in Critical Thinking.

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Natural Science (Sustainable Agriculture & Food Security)

3669.2

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2014 onwards.

By 2050 global food demand is forecast to be 70% greater than current demand. This increasing demand must be achieved from a degraded natural resource base and with a reduction in greenhouse gas emissions. To effectively address these issues will require a fundamental shift in the way we view and manage the environment, agriculture, food and health. A Bachelor of Natural Science (Sustainable Agriculture and Food Security) will explore the interconnections between food security, agriculture and the environment, social stability, health, plants and animals, and the sustainable use of resources (including energy and water and the management/reuse of "wastes"). You will gain critical thinking skills and the ability to contribute innovative solutions to the complex challenges of future sustainable agriculture and food security. The program embeds an integrated suite focussing on sustainable agriculture and food security including crop and animal production, agronomy, animal science, soil and water in the landscape, plant health and biosecurity, post harvest, global nutrition, food and community. There are a range of majors and sub-majors (agricultural economics and environmental sustainability and management) offered in Natural Science and Science that can add diversity and/or focus to your degree, to help match your studies to your career aspiration.

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Hawkesbury Campus	Full Time	Internal

Admission

Assumed Knowledge: One or more units of Agriculture, Business Studies, Geography, Society and Culture, and any two units of Mathematics and any two units of Science.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Recommended Sequence

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Year 1

Autumn session

300802.1	Biodiversity
300811.1	Scientific Literacy
300804.1	Feeding the Planet
300808.2	Introductory Chemistry

Spring session

300810.1	Resource Sustainability
300831.2	Quantitative Thinking
300815.1	Crop Production
300805.1	Food Science 1

Year 2

Autumn session

300931.1	Integrated Science
300863.1	Agronomy
300790.1	Agriculture, Food and Health

And one elective

Spring session

300932.1	Natural Science Research Methods
300823.1	Soils
300875.1	Landuse and the Environment
300791.1	Sustainable Food Production

Year 3

Autumn session

300913.1	Field Project 1
300921.1	Plant Health and Biosecurity

And two electives

Spring session

300914.1	Field Project 2
300870.1	Water in the Landscape
300917.1	Global Nutrition, Food and Community
300869.1	Postharvest

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points) including the sub-majors listed below.

Sub-majors

SM3048.1	Climate Change
SM3044.1	Microbiology

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

Students who maintain a GPA of 5 or higher may use elective units toward obtaining an additional approved sub-major in Critical Thinking.

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Occupational Therapy

4711.1

Occupational therapy is a highly regarded field in which you can apply your knowledge and skills to provide therapy for people who, because of illness, injury or circumstances, are limited in their ability to perform everyday tasks. The program promotes the value of human diversity, fundamental human rights and the dignity and worth of every client. Occupational therapists find employment in public and private hospitals, rehabilitation centres, insurance companies, schools and large corporations.

The course in occupational therapy is offered as a Bachelor of Occupational Therapy. The first two years of the program combine studies in occupational therapy with a broad understanding of biomedicine and various health science fields to develop the professional competencies important for ethical and safe practice and high quality care and the skills to work in multidisciplinary teams. The final two years focus predominately on occupational therapy practice skills, practical experience and specialised areas. Evidence-based practice is one of the most important trends in healthcare today and a strong feature of the program.

An honours stream is available for high performing students. Students may also exit after year 3 with a Bachelor of Health Science degree but are unable to practice as an occupational therapist.

Study Mode

Four years full-time

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal

Accreditation

The University of Western Sydney Bachelor of Occupational Therapy is an accredited program of study and students are eligible to register with the Australian Health Practitioner Regulation Agency.

Admission

Assumed knowledge: any 2 units of English.

Recommended studies: Physics, Chemistry, Biology and/or Personal Development Health and Physical Education.

To be eligible to undertake fieldwork or practice placements, students must also comply with the NSW Health Records and Information Privacy Act (2004) and complete a relevant declaration.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International. International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Special Requirements

To be able to enrol in the first year Spring unit 400907 Occupational Therapy Practice 1 and subsequent occupational therapy fieldwork units, all students must have a National Police Certificate, a Working with Children Check Student Declaration and a First Aid Certificate (including cardiopulmonary resuscitation). To be eligible to undertake fieldwork placements in public hospitals, students must comply with NSW Health vaccination requirements and be prepared to submit a completed Adult Immunisation Card to placement institutions. Details of necessary vaccinations are available from NSW Health. To meet NSW health requirements for clinical placements, students will be required to attend a 'bulk compliance' appointment to have their special requirements verified by NSW Health staff.

Course Structure

Qualification for this award requires the successful completion of 320 credit points which include the units listed in the recommended sequence below.

Recommended sequence

Full-time

Year 1

Autumn session

400870.2 Population Health and Society
400868.3 Human Anatomy and Physiology 1
400160.4 Introduction to Occupational Therapy
400871.2 Professional Health Competencies

Spring session

400907.4 Occupational Therapy Practice 1
400869.3 Human Anatomy and Physiology 2
400863.2 Foundations of Research and Evidence-Based Practice
400732.2 Communication in Health

Year 2

Autumn session

400908.2 People, Environment and Occupations
400138.3 Pathophysiology 1
400864.3 Research Methods (Quantitative and Qualitative)
400866.3 Culture, Diversity and Health

Spring session

300754.3 Neuroanatomy
400881.3 Functional Anatomy
101614.2 Psychology and Health
400909.3 Occupational Therapy Practice 2

Year 3

Autumn session

400171.3 Occupation and Neurology
400169.3 Occupation and Mental Health
400910.1 Occupational Therapy Practice 3
400165.2 Occupation and the Environment

Spring session

400162.3 Child and Adolescent Occupations
400865.3 Evidence-Based Practice
400176.3 Occupation and Ageing
401121.1 Ergonomics and Work Occupations

At this point, students may exit with a Bachelor of Health Science

Year 4

Autumn session

401122.1 Occupational Therapy Project
401123.1 Occupational Justice
401124.1 Occupational Therapy Specialties
401125.1 Professional Reasoning

Spring session

401126.1 Occupational Therapy Practice 4A
401127.1 Occupational Therapy Practice 4B

Bachelor of Occupational Therapy (Honours)

4712.1

Occupational therapy is a highly regarded field in which you can apply your knowledge and skills to provide therapy for people who, because of illness, injury or circumstances, are limited in their ability to perform everyday tasks. The program promotes the value of human diversity, fundamental human rights and the dignity and worth of every client. Occupational therapists find employment in public and private hospitals, rehabilitation centres, insurance companies, schools and large corporations.

The course in occupational therapy is offered as a Bachelor of Occupational Therapy. The first two years of the program combine studies in occupational therapy with a broad understanding of biomedicine and various health science fields to develop the professional competencies important for ethical and safe practice and high quality care and the skills to work in multidisciplinary teams. The final two years focus predominately on occupational therapy practice skills, practical experience and specialised areas. Evidence-based practice is one of the most important trends in healthcare today and a strong feature of the program.

An honours stream is available for high performing students. Students may also exit after year 3 with a Bachelor of Health Science degree but are unable to practice as an occupational therapist.

Study Mode
Four years full-time

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal

Accreditation
The University of Western Sydney Bachelor of Occupational Therapy (Honours) is an accredited program of study and students are eligible to register with the Australian Health Practitioner Regulation Agency

Admission
Assumed knowledge: any 2 units of English.

Recommended studies: Physics, Chemistry, Biology and/or Personal Development Health and Physical Education.

To be eligible to undertake fieldwork or practice placements, students must also comply with the NSW Health Records and Information Privacy Act (2004) and complete a relevant declaration.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and

International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International. International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Special Requirements

To be able to enrol in the first year Spring unit 400907 Occupational Therapy Practice 1 and subsequent occupational therapy fieldwork units, all students must have a National Police Certificate, a Working with Children Check Student Declaration and a First Aid Certificate (including cardiopulmonary resuscitation). To be eligible to undertake fieldwork placements in public hospitals, students must comply with NSW Health vaccination requirements and be prepared to submit a completed Adult Immunisation Card to placement institutions. Details of necessary vaccinations are available from NSW Health. To meet NSW health requirements for clinical placements, students will be required to attend a 'bulk compliance' appointment to have their special requirements verified by NSW Health staff.

Course Structure

Qualification for this award requires the successful completion of 320 credit points which include the units listed in the recommended sequence below.

Recommended sequence

Year 1

Autumn session

400870.2 Population Health and Society
400868.3 Human Anatomy and Physiology 1
400160.4 Introduction to Occupational Therapy
400871.2 Professional Health Competencies

Spring session

400907.4 Occupational Therapy Practice 1
400869.3 Human Anatomy and Physiology 2
400863.2 Foundations of Research and Evidence-Based Practice
400732.2 Communication in Health

Year 2

Autumn session

400908.2 People, Environment and Occupations
400138.3 Pathophysiology 1
400864.3 Research Methods (Quantitative and Qualitative)
400866.3 Culture, Diversity and Health

Spring session

300754.3 Neuroanatomy
400881.3 Functional Anatomy
101614.2 Psychology and Health
400909.3 Occupational Therapy Practice 2

Year 3

Autumn session

400171.3 Occupation and Neurology
400169.3 Occupation and Mental Health
400910.1 Occupational Therapy Practice 3
400165.2 Occupation and the Environment

2H session

400944.2 Evidence-Based Practice (Advanced)

Spring session

400162.3 Child and Adolescent Occupations
400176.3 Occupation and Ageing
401121.1 Ergonomics and Work Occupations

Year 4

1H session

400945.1 Honours Research 1

Autumn session

401123.1 Occupational Justice
401125.1 Professional Reasoning

2H session

400946.1 Honours Research 2
401161.1 Occupational Therapy Practice 4 (Honours)

Bachelor of Physiotherapy

4706.1

This version of the course is available to new and continuing students. Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in the course was 2015 or later.

Physiotherapy is a highly regarded profession and demand for physiotherapists is strong. Physiotherapists work in private practice, aged care settings, private and public hospitals, workplaces, community based agencies, schools, rehabilitation centres and chronic health management clinics. Patients range across the life span, from birth to athletes and the elderly. The course in physiotherapy is offered as a 4-year Bachelor of Physiotherapy. The first three years of the program combine studies in physiotherapy with a broad understanding of biomedicine and health science fields to develop the professional competencies important for ethical and safe practice, high quality care and the skills to work in multidisciplinary teams.

The final year focuses predominately on the development of physiotherapy practice skills, which are used during clinical placements to treat patients in the community. Evidence-based practice is one of the most important trends in healthcare today and a strong feature of the program.

The Honours program is available to high achieving students in the Bachelor of Physiotherapy. Honours is a key early step in the pathway to leadership in the profession and opens up the world of research, without taking any longer to complete the degree. Students apply for entry into the Honours program in year 3 of the degree. They begin advanced research training in the latter half of year 3. Clinical placements and an honours thesis are completed during the fourth year of the program. The thesis presents research that addresses real physiotherapy problems. This research will be conducted under the supervision of experienced academic researchers.

Study Mode
Four years full-time

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal

Accreditation
The Bachelor of Physiotherapy and Bachelor of Physiotherapy (Hons) is accredited by the Australian Physiotherapy Council and is an approved program of study by the Physiotherapy Board of Australia.

Admission
Assumed knowledge: any 2 units of English.

Recommended studies: Biology.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website

Special Requirements
In order to enrol in Second Year Spring units, all students must have: National Police Certificate, Working with Children Check Student Declaration and First Aid Certificate (including cardiopulmonary resuscitation). To be eligible for clinical placements, students must comply with vaccination requirements and be prepared to submit a completed Adult Immunisation Card to placement institutions. NSW Health can provide details of necessary vaccinations. To meet NSW health requirements for clinical placements, second year students will be required to attend a 'bulk compliance' appointment to have their special requirements verified by NSW Health staff. To be eligible to undertake field/work/practice placements, students must also comply with the NSW Health Records and Information Privacy Act (2004) and complete a relevant declaration. In clinical placement units, students must wear the UWS physiotherapy uniform, which complies with NSW uniform requirements. Special note: Students in this program are required to participate fully in practical classes. This involves disrobing to shorts and singlet or swim-suit equivalent in mixed gender classes. Students will practice hands-on physiotherapy examination and treatment techniques on both genders, and will personally experience these techniques which will be performed on them by other students and relevant academic staff.

Course Structure
Qualification for this award requires the successful completion of 320 credit points which include the units listed in the recommended sequence below.

Recommended Sequence

Year 1

Autumn session

400870.2	Population Health and Society
400868.3	Human Anatomy and Physiology 1
400906.2	Introduction to Physiotherapy Practice
400871.2	Professional Health Competencies

Spring session

400881.3	Functional Anatomy
400869.3	Human Anatomy and Physiology 2
400863.2	Foundations of Research and Evidence-Based Practice
400732.2	Communication in Health

Year 2

Autumn session

401140.1	Biomechanics
400138.3	Pathophysiology 1
400864.3	Research Methods (Quantitative and Qualitative)
400866.3	Culture, Diversity and Health

Spring session

300754.3	Neuroanatomy
400981.2	Clinical Pharmacology
101614.2	Psychology and Health
400982.3	Core Competencies in Physiotherapy Practice

Year 3

1H session

400984.1	Cardiorespiratory Physiotherapy
400986.1	Neurological Physiotherapy
400983.1	Orthopaedic Physiotherapy

Autumn session

400985.1	Clinical Education A

Spring session

400997.3	Exercise Rehabilitation

400998.2 Neurological Rehabilitation
400865.3 Evidence-Based Practice
400999.3 Musculoskeletal Physiotherapy

At this point, students may exit with a Bachelor of Health Science

Year 4

1H session

401106.1 Paediatric Physiotherapy
401107.1 Physiotherapy for Chronic Illness and Disease
401110.1 Clinical Education B (Rehabilitation)
401111.1 Clinical Education C (Ambulatory Care)

2H session

401108.1 Complex Cases and Professional Issues
401109.1 Integrating Research into Physiotherapy Practice
401112.1 Clinical Education D (Paediatrics)
401113.1 Clinical Education E (Advanced Care)

Bachelor of Physiotherapy (Honours)

4707.1

The Honours program is available to high achieving students in the Bachelor of Physiotherapy. Honours is a key early step in the pathway to leadership in the profession and opens up the world of research, without taking any longer to complete the degree. Students apply for entry into the Honours program in year 3 of the combined degree. They begin advanced research training in the latter half of year 3. Clinical placements and an honours thesis are completed during the fourth year of the program. The thesis presents research that addresses real physiotherapy problems. This research will be conducted under the supervision of experienced academic researchers.

Study Mode
Four years full-time

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal

Accreditation
The Bachelor of Physiotherapy and Bachelor of Physiotherapy (Hons) is accredited by the Australian Physiotherapy Council and is an approved program of study by the Physiotherapy Board of Australia.

Admission
Admission is through direct application to the university - applications are directed to the School of Science and Health.

Students must have completed 200 credit points in the first 2.5 years of the UWS Bachelor of Physiotherapy course and achieved a GPA of 6.0 or greater. Students with a GPA in the range of 5.0-6.0 and a credit average in units completed in Bachelor of Physiotherapy levels 2 and 3 will also be considered (in accordance with the Honours Policy clause 13 and the Graduations Policy clause 53).

Special Requirements
In order to enrol in Second Year Spring units, all students must have: National Police Certificate, Working with Children Check Student Declaration and First Aid Certificate (including cardiopulmonary resuscitation). To be eligible for clinical placements, students must comply with vaccination requirements and be prepared to submit a completed Adult Immunisation Card to placement institutions. NSW Health can provide details of necessary vaccinations. To meet NSW health requirements for clinical placements, second year students will be required to attend a 'bulk compliance' appointment to have their special requirements verified by NSW Health staff. To be eligible to undertake field/work/practice placements, students must also comply with the NSW Health Records and Information Privacy Act (2004) and complete a relevant declaration. In clinical placement units, students must wear the UWS physiotherapy uniform, which complies with NSW uniform requirements. Special note: Students in this program are required to participate fully in practical classes. This involves disrobing to shorts and singlet or swim-suit equivalent in mixed gender classes. Students will practice hands-on physiotherapy examination and treatment techniques on both genders, and will personally experience these techniques which will be performed on them by other students and relevant academic staff.

Course Structure
Qualification for this award requires the successful completion of 360 credit points which include the units listed in the recommended sequence below.

Recommended Sequence

Year 1

Autumn session

400870.2 Population Health and Society
400868.3 Human Anatomy and Physiology 1
400906.2 Introduction to Physiotherapy Practice
400871.2 Professional Health Competencies

Spring session

400881.3 Functional Anatomy
400869.3 Human Anatomy and Physiology 2
400863.2 Foundations of Research and Evidence-Based Practice
400732.2 Communication in Health

Year 2

Autumn session

401140.1 Biomechanics
400138.3 Pathophysiology 1
400864.3 Research Methods (Quantitative and Qualitative)
400866.3 Culture, Diversity and Health

Spring session

300754.3 Neuroanatomy
400981.2 Clinical Pharmacology
101614.2 Psychology and Health
400982.3 Core Competencies in Physiotherapy Practice

Year 3

1H session

400984.1 Cardiorespiratory Physiotherapy
400986.1 Neurological Physiotherapy
400983.1 Orthopaedic Physiotherapy

Autumn session

400985.1 Clinical Education A

2H session

400944.2 Evidence-Based Practice (Advanced)

Spring session

400997.3 Exercise Rehabilitation
400998.2 Neurological Rehabilitation
400999.3 Musculoskeletal Physiotherapy

Year 4

1H session

400945.1 Honours Research 1
401106.1 Paediatric Physiotherapy
401107.1 Physiotherapy for Chronic Illness and Disease
401110.1 Clinical Education B (Rehabilitation)
401111.1 Clinical Education C (Ambulatory Care)

2H session

400946.1 Honours Research 2
401108.1 Complex Cases and Professional Issues
401109.1 Integrating Research into Physiotherapy Practice
401112.1 Clinical Education D (Paediatrics)
401113.1 Clinical Education E (Advanced Care)

Bachelor of Podiatric Medicine

4708.1

This version of the course is available to new and continuing students. Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in the course was 2015 or later.

Podiatrists are best known for treating problems that people experience with their feet and lower limb, but they are increasingly playing an important role in addressing chronic conditions such as diabetes and rheumatology. Podiatrists treat a range of patients including children, adults, workers, sportspeople and the older population. There is a focus on podiatric applications including management of common problems such as ingrown toenails or bunions, chronic disease management, musculoskeletal rehabilitation, footwear assessment and orthoses fabrication. Over the course of the program students will complete 1000 hours clinical hours inclusive of Uniclinic sessions and 19 weeks of clinical placement in a range of facilities including hospitals, community centres, private practices, and sports medicine centres, in rural and metropolitan locations. Continuing education on completion of the program can lead to opportunities for advanced practice such as restricted therapeutic prescription rights and application for training as a podiatric surgeon. The course in podiatry is offered as a 4-year Bachelor of Podiatric Medicine. The first three years of the program combine studies in podiatry with a broad understanding of biomedicine and various health science fields to develop the professional competencies important for ethical and safe practice and high quality care and the skills to work in multidisciplinary teams. The final year focuses predominately on podiatry practice skills, practical experience and specialised areas. Evidence-based practice is one of the most important trends in healthcare today and a strong feature of the program.

Study Mode
Four years full-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal

Accreditation
The University of Western Sydney Bachelor of Health Science (pass and honours)/Master of Podiatric Medicine and the Master of Podiatric Medicine are accredited programs of study and students are eligible to register with the Australian Health Practitioner Regulation Agency. Similar accreditation will be sought for Bachelor of Podiatric Medicine (pass and honours)

Admission
Assumed knowledge: Any 2 unit of English

Recommended Studies: Mathematics, Physics and Biology

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills

Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Special Requirements

In order to enrol in Second Year clinical units with clinical placement requirements, all students must have: National Police Certificate, Working with Children Check, Student Declaration, First Aid Certificate (including cardiopulmonary resuscitation). To be eligible for clinical placements, students must comply with vaccination requirements and be prepared to submit a completed Adult Immunisation Card to placement institutions. NSW Health can provide details of necessary vaccinations. To meet NSW health requirements for clinical placements, second year students will be required to attend a 'bulk compliance' appointment to have their special requirements verified by NSW Health staff. To be eligible to undertake field/work/practice placements, students must also comply with the NSW Health Records and Information Privacy Act (2004) and complete a relevant declaration. In clinical placement units, students must wear the UWS podiatric medicine uniform, which complies with NSW uniform requirements. Special note: Students in this program are required to participate fully in practical classes. This involves practical hands-on podiatry / lower extremity examination and treatment techniques on both genders and students will personally experience these techniques which will be performed on them by other students and/or relevant academic staff. Students are also required to undertake 19 weeks of clinical placement activity which can include rural and metropolitan locations. Student must meet their own travel, accommodation and living expenses during these activities.

Course Structure

Qualification for this award requires the successful completion of 320 credit points which include the units listed in the recommended sequence below.

Recommended Sequence

Year 1

Autumn session

400870.2 Population Health and Society
400868.3 Human Anatomy and Physiology 1
400905.2 Introduction to Podiatry
400871.2 Professional Health Competencies

Spring session

400881.3 Functional Anatomy
400869.3 Human Anatomy and Physiology 2
400863.2 Foundations of Research and Evidence-Based Practice
400732.2 Communication in Health

Year 2

1H Session

401181.1 Pathomechanics and Podiatric Medicine

Autumn session

401140.1 Biomechanics
400138.3 Pathophysiology 1
401181.1 Pathomechanics and Podiatric Medicine
400864.3 Research Methods (Quantitative and Qualitative)

2H Session

400933.2 Podiatry Pre-Clinical

Spring session

401180.1 Musculoskeletal Disorders and Imaging
300754.3 Neuroanatomy
400981.2 Clinical Pharmacology

Year 3

1H session

400929.2 Podiatric Practice 1
401184.1 The High Risk Foot

Autumn session

400866.3 Culture, Diversity and Health
401182.1 Pharmacology for Podiatrists

2H session

400930.3 Podiatric Practice 2
401183.1 Podiatric Surgery

Spring session

101614.2 Psychology and Health
400865.3 Evidence-Based Practice

At this point, students may exit with the Bachelor of Health Science (no specialisation)

Year 4

1H Session

401115.1 Podiatric Paediatrics and Sports Medicine
401116.1 Dermatology and Gerontology
401117.1 Podiatric Clinical Block
401114.1 Podiatric Practice 3

2H Session

401119.1 Podiatric Professional Practice Studies
401117.1 Podiatric Clinical Block
401118.1 Podiatric Practice 4

And one elective

Students will exit with Bachelor of Podiatric Medicine

Bachelor of Podiatric Medicine (Honours)

4709.1

The Honours program is available to high achieving students in the Bachelor of Podiatric Medicine. Honours is a key early step in the path to leadership in the profession and opens up the world of research, without taking any longer to complete the degree. The honours program encourages independent learning, develops research skills and provides an opportunity for deeper investigation in the

major field of study. An honours program is a recognised preparation and entry point for postgraduate research studies and the research training is valuable preparation for careers in research and development and analysis in the public and private sectors. Students apply for entry into the Honours program in year 3 of their degree. They begin advanced research training in the latter half of year 3. Clinical placements and an honours thesis are completed during the fourth year of the program. The thesis presents research that addresses real podiatric problems and education across the lifespan. This research will be conducted under the supervision of experienced academic researchers.

Study Mode
Four years full-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal

Accreditation
The University of Western Sydney Bachelor of Health Science (pass and honours)/Master of Podiatric Medicine and the Master of Podiatric Medicine are accredited programs of study and students are eligible to register with the Australian Health Practitioner Regulation Agency. Similar accreditation will be sought for Bachelor of Podiatric Medicine (pass and honours)

Admission
Admission is through direct application to the university - applications are directed to the School of Science and Health.

Students must have completed 200 credit points in the first 2.5 years of the UWS Bachelor of Podiatric Medicine course and achieved a GPA of 5.0 or greater. Students with a GPA in the range of 4.5-5.0 and a credit average in units completed in Bachelor of Podiatric Medicine levels 2 and 3 will also be considered (in accordance with the Honours Policy clause 13 and the Graduations Policy clause 53).

Special Requirements
In order to enrol in Second Year clinical units with clinical placement requirements, all students must have: National Police Certificate, Working with Children Check, Student Declaration, First Aid Certificate (including cardiopulmonary resuscitation). To be eligible for clinical placements, students must comply with vaccination requirements and be prepared to submit a completed Adult Immunisation Card to placement institutions. NSW Health can provide details of necessary vaccinations. To meet NSW health requirements for clinical placements, second year students will be required to attend a 'bulk compliance' appointment to have their special requirements verified by NSW Health staff. To be eligible to undertake field/work/practice placements, students must also comply with the NSW Health Records and Information Privacy Act (2004) and complete a relevant declaration. In clinical placement units, students must wear the UWS podiatric medicine uniform, which complies with NSW uniform requirements. Special note: Students in this program are required to participate fully in practical classes. This involves practical hands-on podiatry / lower extremity examination and treatment techniques on both genders and students will personally experience these techniques which will be performed on them by other students and/or relevant academic staff. Students are also required to undertake 19 weeks of clinical placement activity which can include rural and metropolitan locations. Student must meet their own travel, accommodation and living expenses during these activities.

Course Structure
Qualification for this award requires the successful completion of 320 credit points which include the units listed in the recommended sequence below.

Recommended Sequence

Year 1

Autumn session

400870.2 Population Health and Society
400868.3 Human Anatomy and Physiology 1
400905.2 Introduction to Podiatry
400871.2 Professional Health Competencies

Spring session

400881.3 Functional Anatomy
400869.3 Human Anatomy and Physiology 2
400863.2 Foundations of Research and Evidence-Based Practice
400732.2 Communication in Health

Year 2

1H Session

401181.1 Pathomechanics and Podiatric Medicine

Autumn session

401140.1 Biomechanics
400138.3 Pathophysiology 1
400864.3 Research Methods (Quantitative and Qualitative)

2H Session

400933.2 Podiatry Pre-Clinical

Spring session

401180.1 Musculoskeletal Disorders and Imaging
300754.3 Neuroanatomy
400981.2 Clinical Pharmacology

Year 3

1H session

400929.2 Podiatric Practice 1
401184.1 The High Risk Foot

Autumn session

400866.3 Culture, Diversity and Health
401182.1 Pharmacology for Podiatrists

2H session

400930.3 Podiatric Practice 2

Spring session

401183.1 Podiatric Surgery
101614.2 Psychology and Health
400944.2 Evidence-Based Practice (Advanced)

At this point, students may exit with the Bachelor of Health Science (no specialisation)

Year 4

1H Session

401115.1 Podiatric Paediatrics and Sports Medicine
401116.1 Dermatology and Gerontology
401046.1 Honours Research 2 (Podiatric Medicine)
401114.1 Podiatric Practice 3

2H Session

401120.1 Clinical and Professional Practice (Honours)
401046.1 Honours Research 2 (Podiatric Medicine)
401118.1 Podiatric Practice 4

Students will exit with Bachelor of Podiatric Medicine (Honours)

Bachelor of Science

3675.3

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

Science asks questions about how the natural world works. It does so in a systematic, yet rigorously creative way based on inquiry and evidence for ideas. This approach has led to our current understanding of nature as being (in large part) systematic and predictable, and has underpinned major advances in human welfare. A Bachelor of Science will prepare you to take part in this process of enquiry, by both contributing to it and by using scientific knowledge to solve current problems. Students will learn core concepts and skills necessary for scientific inquiry: investigating the natural world, proposing and testing ideas by experimentation and observation; quantifying and modelling processes; communicating findings, thinking independently and critically. Students can enrol in a generalist Bachelor of Science or a Bachelor of Science in a specific discipline. Within each program students can select from a range of scientific disciplines to suit their interests, studying a core of basic science units to which other science units, and if desired, non-science units, can be added.

Study Mode
Three years full-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Campbelltown Campus	Part Time	Internal
Hawkesbury Campus	Full Time	Internal
Hawkesbury Campus	Part Time	Internal
Parramatta Campus	Full Time	Internal
Parramatta Campus	Part Time	Internal

Admission

Assumed Knowledge: At least two of Biology, Chemistry, Mathematics and Physics.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualifying for this award requires successful completion of 240 credit points within the following rules

Level 1

Six level 1 science core units must be completed by including the following

- at least one mathematics or statistics unit
- one academic skills unit
- at least four other science foundation units from the unit set structure below, which must come from a further two science disciplines out of the following: Biology, Chemistry, Computer Science or Physics

Levels 2 and 3

- at least ten more science units must be selected from the unit set structure below
- at least one Major specialisation must be completed
- at least 60 credit points must be taken at level 3, of which at least 40 credit points must be for science units taken from the unit set structure below
- one level 3 science unit must be a capstone unit which ties the area of study together

Students must complete at least one of the following Major specialisations

- Hawkesbury: Biochemistry and Molecular Biology, Climate Change, Conservation Biology, Environmental Consulting, Forensic Science, Marine Biology, Microbiology, General Biology, Nutrition and Physiology, Zoology. Please note: a Mathematics major cannot be completed on Hawkesbury campus.
- Parramatta: Biochemistry and Molecular Biology, Chemistry, General Biology, Mathematics
- Campbelltown: Biochemistry and Molecular Biology, Chemistry, General Biology, Mathematics

Students commencing mid-year should seek academic advice about completing their chosen major; more than three years may be required for completing in some cases due to the Semester some units are offered in and the sequence in which they must be completed.

Start Year Intakes

Year 1

Autumn session

Non-mathematics majors: choose at least one mathematics or statistics unit in your first year. Students cannot do a mathematics major on the Hawkesbury campus.

300811.1 Scientific Literacy

Choose at least three of

300802.1 Biodiversity
300828.1 Physics 1
300800.2 Essential Chemistry 1
300808.2 Introductory Chemistry

Parramatta and Campbelltown only

300580.2 Programming Fundamentals

Parramatta, Campbelltown or External offerings only

300134.2 Introduction to Information Technology

Note: Students may only choose one unit from 300800 - Essential Chemistry 1 or 300808 - Introductory Chemistry

Mathematics and Statistics units

300831.2 Quantitative Thinking

External offering only

300830.2 Analysis of Change
200263.5 Biometry

Parramatta and Campbelltown only

300672.2 Mathematics 1A
200025.2 Discrete Mathematics

Spring session

Choose at least two of

300803.1 Essential Chemistry 2
300816.1 Cell Biology
300818.1 Introduction to Physiology
300134.2 Introduction to Information Technology

Parramatta and Campbelltown only

300829.1 Physics 2
300580.2 Programming Fundamentals

Mathematics and Statistics units

200263.5 Biometry

Hawkesbury, Campbelltown or external offering only

300831.2 Quantitative Thinking
300672.2 Mathematics 1A

External offering only

300830.2 Analysis of Change

Parramatta and Campbelltown only

300673.2 Mathematics 1B

And two elective units

Year 2

Autumn session

Choose at least three of

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1
300845.1 Genetics
300876.1 Organic Chemistry

Parramatta and Campbelltown only

300832.1 Analytical Chemistry
200027.2 Linear Algebra
200028.3 Advanced Calculus

Hawkesbury only

300843.1 Forensic and Environmental Analysis
300837.1 Climate Change Science
300980.1 Principles of Evolution

Hawkesbury or external offering only

300931.1 Integrated Science

Hawkesbury and Parramatta only

300865.1 Plant Physiology

And one elective

Note: Students may choose only one of 300832 - Analytical Chemistry and 300843 - Forensic and Environmental Analysis

Spring session

Choose at least three of

300848.1 Metabolism
300896.1 Microbiology 2
300817.1 Molecular Biology
300839.1 Ecology

Parramatta and Campbelltown only

300847.2 Immunology
300899.1 Inorganic Chemistry
300849.2 Physical Chemistry
200030.4 Differential Equations
301032.1 Making Sense of Data
301033.1 Introduction to Data Science

Parramatta and Hawkesbury only

300838.1 Comparative Physiology

Hawkesbury only

300836.1 Botany
300979.1 Principles of Zoology

External offering only

300959.1 Mangamai'bangawarra: Indigenous Science

And one elective

Hawkesbury Campus

Year 3

Autumn session

Choose at least one capstone unit in your final year of study; capstone units are indicated below. The capstone unit selected should come from your Major.

Choose at least two of

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology
300856.1 Ecosystem Carbon Accounting
300857.1 Environmental Geochemistry
300921.1 Plant Health and Biosecurity
300919.1 Occupational Health and Safety

Capstone units

300866.1 Analytical Microbiology
300851.1 Advanced Physiology
300978.1 Marine and Aquatic Ecology

And two electives (one elective must be a Level 3 unit)

Spring session

Choose at least two of

300905.1 Advanced Immunology
300826.1 Medical Microbiology
300861.1 Vertebrate Biodiversity
300918.1 Invertebrate Biology

Capstone units

300927.2 Molecular Medicine
300924.1 Science Research Project
300855.1 Conservation Biology
300909.1 Biological Adaptation to Climate Change
300883.1 Laboratory Quality Management

And two electives (One elective must be a Level 3 unit)

Parramatta Campus

Year 3

Autumn session

Choose at least one capstone unit in your final year of study; capstone units are indicated below. The capstone unit selected should come from your Major.

Choose at least two of

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology
300907.1 Advanced Inorganic Chemistry
300926.1 Advanced Physical Chemistry
300857.1 Environmental Geochemistry
200193.2 Abstract Algebra
301034.1 Predictive Modelling
200023.3 Analysis

Capstone unit

300851.1 Advanced Physiology

And two electives (one elective must be a Level 3 unit)

Spring session

Choose at least two of

300905.1 Advanced Immunology
300826.1 Medical Microbiology
300925.1 Advanced Analytical Chemistry
300906.1 Advanced Organic Chemistry
301035.1 Environmental Informatics
200022.3 Mathematical Modelling
300855.1 Conservation Biology

Capstone units

300924.1 Science Research Project
200045.3 Quantitative Project

And two electives (one elective must be a Level 3 unit)

Campbelltown Campus

Year 3

Autumn session

Choose at least one capstone unit in your final year of study; capstone units are indicated below. The capstone unit selected should come from your Major.

Choose at least two of

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology

300819.1 Topics in Physiology
300907.1 Advanced Inorganic Chemistry
300912.1 Molecular Pharmacokinetics
200193.2 Abstract Algebra
301034.1 Predictive Modelling
200023.3 Analysis

And two elective units (one elective must be a Level 3 unit)

Spring session

Choose at least two of

300905.1 Advanced Immunology
300826.1 Medical Microbiology
300925.1 Advanced Analytical Chemistry
300906.1 Advanced Organic Chemistry
301035.1 Environmental Informatics
200022.3 Mathematical Modelling

Capstone units

300927.1 Molecular Medicine
300924.1 Science Research Project
200045.3 Quantitative Project

And two elective units (one elective must be a Level 3 unit)

Mid Year Intake

Year 1

Select at least six Level 1 science units over the next three semesters; Scientific Literacy is a compulsory unit, at least one unit must be mathematics or statistics, and the remaining four units must cover at least two other scientific disciplines

Spring session

300811.1 Scientific Literacy

Choose at least two of

300816.1 Cell Biology
300818.1 Introduction to Physiology
300134.2 Introduction to Information Technology
300803.1 Essential Chemistry 2

Parramatta and Campbelltown only

300829.1 Physics 2
300580.2 Programming Fundamentals

Mathematics and Statistics Units

200263.5 Biometry
300831.2 Quantitative Thinking

Extenal offering only

300830.2 Analysis of Change

Parramatta and Campbelltown only

300672.2 Mathematics 1A

And one elective unit (if a mathematics or statistics unit has not been chosen)

Autumn session

Choose at least two of

300802.1 Biodiversity
300828.1 Physics 1
300800.2 Essential Chemistry 1
300808.2 Introductory Chemistry

Parramatta or Campbelltown only

300580.2 Programming Fundamentals

Parramatta, Campbelltown or External offering only

300134.2 Introduction to Information Technology

Mathematics and Statistics Units

300831.2 Quantitative Thinking

External offering only

200263.5 Biometry
300673.2 Mathematics 1B

Parramatta and Campbelltown only

200025.2 Discrete Mathematics

And one elective if completing a mathematics or statistics unit this semester; select two electives otherwise.

Note: Students may only choose one unit from 300800 - Essential Chemistry 1 or 300808 - Introductory Chemistry

Year 2

Spring session

Select unit below if required by your major

300803.1 Essential Chemistry 2

Level 2 Science Units

Choose at least two of

300839.1 Ecology

Hawkesbury and Parramatta only

300838.1 Comparative Physiology

Hawkesbury only

300836.1 Botany
300979.1 Principles of Zoology

Parramatta and Campbelltown only

300899.1 Inorganic Chemistry
200030.4 Differential Equations
301032.1 Making Sense of Data
301033.1 Introduction to Data Science

External offering only

300959.1 Mangamai'bangawarra: Indigenous Science

And two electives if doing 300803 - Essential Chemistry 2; select three electives otherwise.

Autumn session

Choose three of the following

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1
300845.1 Genetics
300931.1 Integrated Science
300843.1 Forensic and Environmental Analysis

Hawkesbury and Parramatta only

300865.1 Plant Physiology

Hawkesbury only

300837.1 Climate Change Science
300980.1 Principles of Evolution

Parramatta and Campbelltown only

300876.1 Organic Chemistry
300832.1 Analytical Chemistry
200027.2 Linear Algebra
200028.3 Advanced Calculus

And one elective

Year 3

Spring session

Continue your choice of Level 2 units from the list below: select units required to complete six Level 2 science units.

300848.1 Metabolism
300896.1 Microbiology 2
300817.1 Molecular Biology
300959.1 Mangamai'bangawarra: Indigenous Science

Parramatta and Campbelltown only

300847.2 Immunology
300899.1 Inorganic Chemistry
300849.2 Physical Chemistry
200030.4 Differential Equations
301032.1 Making Sense of Data
301033.1 Introduction to Data Science

Hawkesbury only

300979.1 Principles of Zoology
300836.1 Botany

Level 3 Science Units

Select at least four Level 3 science units over the next two semesters; one must be a capstone unit.

Hawkesbury Campus Units

300905.1 Advanced Immunology
300826.1 Medical Microbiology
300861.1 Vertebrate Biodiversity
300918.1 Invertebrate Biology

Capstone units

300927.1 Molecular Medicine
300855.1 Conservation Biology
300924.1 Science Research Project
300909.1 Biological Adaptation to Climate Change
300883.1 Laboratory Quality Management

Parramatta Campus Units

300905.1 Advanced Immunology
300826.1 Medical Microbiology
300925.1 Advanced Analytical Chemistry
300906.1 Advanced Organic Chemistry
301035.1 Environmental Informatics
200022.3 Mathematical Modelling

Capstone units

300855.1 Conservation Biology
300924.1 Science Research Project
200045.3 Quantitative Project

Campbelltown Campus Units

300905.1 Advanced Immunology
300826.1 Medical Microbiology
300925.1 Advanced Analytical Chemistry
300906.1 Advanced Organic Chemistry
301035.1 Environmental Informatics
200022.3 Mathematical Modelling

Capstone units

300927.2 Molecular Medicine
300924.1 Science Research Project
200045.3 Quantitative Project

Autumn session

Select your remaining Level 3 science units from the list below

Hawkesbury Campus Units

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology
300921.1 Plant Health and Biosecurity
300919.1 Occupational Health and Safety
300857.1 Environmental Geochemistry
300856.1 Ecosystem Carbon Accounting

Capstone units

300866.1 Analytical Microbiology
300851.1 Advanced Physiology
300978.1 Marine and Aquatic Ecology

And two Level 3 electives

Parramatta Campus Units

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology

300907.1 Advanced Inorganic Chemistry
300926.1 Advanced Physical Chemistry
200193.2 Abstract Algebra
301034.1 Predictive Modelling
200023.3 Analysis
300857.1 Environmental Geochemistry

Capstone unit

300851.1 Advanced Physiology

And two Level 3 elective units

Campbelltown Campus Units

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology
300819.1 Topics in Physiology
300907.1 Advanced Inorganic Chemistry
300912.1 Molecular Pharmacokinetics
200193.2 Abstract Algebra
200023.3 Analysis
301034.1 Predictive Modelling

Capstone unit

300851.1 Advanced Physiology

And two Level 3 electives

Elective units may be used toward obtaining an additional approved major (80 credit points) or sub-major (40 credit points) including the majors and sub-majors listed below.

Majors

M3081.1 Marine Biology
M3090.1 Biochemistry and Molecular Biology
M3047.1 Chemistry
M3078.1 Climate Change
M3079.1 Conservation Biology
M3051.1 Forensic Science
M3080.1 General Biology
M3054.1 Mathematics
M3055.1 Microbiology
M3089.1 Nutrition and Physiology
M3082.1 Zoology
M3084.1 Environmental Consulting

Sub-majors

SM3062.1 Aquatic Environments
SM3041.1 Biochemistry and Molecular Biology
SM3048.1 Climate Change
SM3042.1 Conservation Biology
SM3038.1 Food Technology - Secondary Teaching
SM3049.1 Immunology and Cell Biology
SM3044.1 Microbiology
SM3050.1 Physics
SM3046.1 Sustainable Environmental Management
SM3063.1 Zoology

Major and Sub-major elective spaces

Elective units may be used toward obtaining an additional approved major (80 credit points) or sub-major (40 credit points).

Students who maintain a GPA of 5 or higher may use elective units toward obtaining an additional approved sub-major in Critical Thinking.

UWS offers majors and sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Science (Advanced Science)

3562.8

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later

If you enjoy being constantly challenged and extended by your studies and are thinking about a career involving scientific research, then the UWS Advanced Science degree is for you! This degree equips students with both specialised knowledge and enhanced inquiry skills in any one of a range of scientific disciplines. The Advanced Science degree is specifically designed to provide initial training for a range of scientific careers involving research and inquiry. You will be partnered with experienced academic researchers and their research teams and participate in the University's exciting research activities to facilitate your transition to an Honours year or directly into a range of exciting career opportunities available to high-achieving science graduates.

Further studies can be pursued (Masters (Hon) or PhD degree) leading to a research or academic career. Information and details on how to apply for Honours will be provided to you as you progress through your Bachelor degree, or you can find out more at

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Hawkesbury Campus	Full Time	Internal
Parramatta Campus	Full Time	Internal

Accreditation

The Bachelor of Science (Advanced Science) is accredited by the Royal Australian Chemical Institute (RACI) for normal entry of a graduate to the Chartered Chemist qualification.

Admission

Minimum ATAR of 90. Students must maintain a Grade Point Average (GPA) of 5.0 or above to continue their enrolment in the course. If this GPA is not maintained they will be automatically transferred into the standard program after one warning (one semester of further study). Students in other UWS science courses who achieve a GPA of 5.0 or greater at the end of their first year of study may be admitted into the Advanced Science program by invitation if sufficient places are available.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Students in the Bachelor of Science (Advanced Science) must follow one of the study programs listed below.

KP3026.1	General Program
KT3128.1	Biological Science
KT3129.1	Chemistry
KT3130.1	Environmental Science
KT3131.1	Forensic Science
KT3132.1	Nutrition and Food Science
KT3133.1	Mathematical Sciences
KT3134.1	Zoology

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

Students in Advanced courses may use elective units toward obtaining an additional approved sub-major in Applied Leadership or Critical Thinking.

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Science (Honours)

3611.2

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2011 or later.

The Honours program encourages independent learning and research, further develops academic ability, provides the opportunity to pursue undergraduate studies to a more advanced level, deepens intellectual understanding in the major field of study and develops research skills. An Honours degree is a recognised point of entry for postgraduate research studies at PhD level and enhances a graduate's ability to perform at a high level in a commercial or public organisation. The Honours program consists of a rigorous program of supervised research on a scientific topic, culminating in the production of a thesis and presentation of a final seminar. Students enrol in a 60 credit point honours project and either a 20 credit point research methodology and experimental design unit, or a 20 credit point advanced topics and research skills unit, allowing them to explore more advanced topics, including wider areas of research and their applications in science, technology, medicine and the environment. Although the Honours course is available on several different campuses, some or all of the lectures, workshops and seminars may be held centrally at a single campus to ensure that students are exposed to as wide a range of research topics as possible. The course can provide opportunities for direct commercial and industrial involvement with a diverse range of organisations through the provision of, and joint supervision of, research projects.

Study Mode

One year full-time or two years part-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Campbelltown Campus	Part Time	Internal
Hawkesbury Campus	Full Time	Internal
Hawkesbury Campus	Part Time	Internal
Parramatta Campus	Full Time	Internal
Parramatta Campus	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal

Course Structure

Qualification for this award requires the successful completion of 80 credit points as per the recommended sequence below.

Please note: Students must enrol in 300747 Advanced Topics and Research Skills and 300412 Science, Technology and Environment Honours Projects in both 1H and 2H sessions.

Recommended Sequence

Full-time

Year 1

1H

300412.3	Science, Technology and Environment Honours Project
300747.2	Advanced Topics and Research Skills

2H

300412.3	Science, Technology and Environment Honours Project

300747.2 Advanced Topics and Research Skills

Part-time

Year 1

1H

300747.2 Advanced Topics and Research Skills

2H

300747.2 Advanced Topics and Research Skills

Year 2

1H

300412.3 Science, Technology and Environment Honours Project

2H

300412.3 Science, Technology and Environment Honours Project

Bachelor of Science (Biological Sciences)

3677.2

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2014 or later

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

The biological sciences are diverse, fascinating, rapidly changing, and essential to our understanding of living systems at scales ranging from the molecular to the global. They play a vital role in our understanding of the environment, as well as animals, plants and micro-organisms, and are essential to a wide range of contemporary industries. A Bachelor of Science (Biological Science) offers a solid foundation in the basic sciences, including biology, microbiology, biochemistry and environmental science. You will be equipped to enter government, industry or research-based employment in this area (e.g. Biotechnology companies, pathology, quality assurance, university and hospital laboratories, scientific sales and government agencies).You may also choose to maximise the biological science content of your degree or combine biological sciences with studies in another discipline.

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Campbelltown Campus	Part Time	Internal
Hawkesbury Campus	Full Time	Internal
Hawkesbury Campus	Part Time	Internal
Parramatta Campus	Full Time	Internal
Parramatta Campus	Part Time	Internal

Admission

Assumed Knowledge: At least two units of Biology, Chemistry, Mathematics and Physics.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Recommended Sequence

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Note: At least 60 credit points must be at Level 3 or above.

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy

Choose one of

300800.2 Essential Chemistry 1
300808.2 Introductory Chemistry

Choose one of

300831.2 Quantitative Thinking
200263.5 Biometry

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2

300818.1 Introduction to Physiology

And one elective

Year 2

Autumn session

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1
300845.1 Genetics

And one elective

Spring session

300817.1 Molecular Biology
300839.1 Ecology

Choose one of

300848.1 Metabolism
300896.1 Microbiology 2
300847.2 Immunology
300979.1 Principles of Zoology
300838.1 Comparative Physiology
300876.1 Organic Chemistry
300832.1 Analytical Chemistry
200030.4 Differential Equations
200033.5 Applied Statistics
300959.1 Mangamai'bangawarra: Indigenous Science

And one elective

Year 3

Autumn session

Choose at least one capstone unit in your final year of study. Capstone units are listed separately below.

Hawkesbury Campus

Choose at least two of

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology
300856.1 Ecosystem Carbon Accounting
300919.1 Occupational Health and Safety

Capstone units

300866.1 Analytical Microbiology
300851.1 Advanced Physiology
300929.1 Aquatic Ecology

Parramatta Campus

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology

Campbelltown Campus

Choose at least two of

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology
300819.1 Topics in Physiology

And two elective units (one elective must be a Level 3 unit)

Spring session

Hawkesbury Campus

Choose at least two of

300905.1 Advanced Immunology
300826.1 Medical Microbiology
300861.1 Vertebrate Biodiversity
300918.1 Invertebrate Biology

Capstone units

300927.2 Molecular Medicine
300924.1 Science Research Project
300855.1 Conservation Biology
300909.1 Biological Adaptation to Climate Change
300883.1 Laboratory Quality Management

Parramatta Campus

Choose at least two of

300905.1 Advanced Immunology
300826.1 Medical Microbiology

Capstone units

300855.1 Conservation Biology
300924.1 Science Research Project

Campbelltown Campus

Choose at least two of

300905.1 Advanced Immunology
300826.1 Medical Microbiology

Capstone units

300927.2 Molecular Medicine
300924.1 Science Research Project

And two elective units (one elective must be a Level 3 unit)

Major and Sub-major elective spaces

Elective units may be used toward obtaining an additional approved major (80 credit points) or sub-major (40 credit points) including the majors and sub-majors listed below.

Majors

M3081.1 Marine Biology
M3080.1 General Biology
M3079.1 Conservation Biology
M3090.1 Biochemistry and Molecular Biology
M3055.1 Microbiology
M3082.1 Zoology
M3084.1 Environmental Consulting

Sub-majors

SM3062.1 Aquatic Environments
SM3041.1 Biochemistry and Molecular Biology
SM3048.1 Climate Change
SM3042.1 Conservation Biology
SM3049.1 Immunology and Cell Biology
SM3044.1 Microbiology
SM3063.1 Zoology

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

Students who maintain a GPA of 5 or higher may use elective units toward obtaining an additional approved sub-major in Critical Thinking.

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Science (Chemistry)

3676.3

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

A Bachelor of Science (Chemistry) will prepare you to take part in a process of inquiry, by both contributing to it and by using scientific knowledge to solve current problems. The Chemistry program provides a strong background in the key topic areas of contemporary chemistry, including aspects of chemical theory in analytical, inorganic, organic and physical chemistry, with a strong emphasis on practical laboratory skills, and applications in contemporary research, industry and the environment. A research project is available to students in the final year of the degree preparing you for a professional career in a wide range of chemistry based industries. A major in geochemistry will prepare you for a career in the minerals and mining industries (where graduates are in high demand). A double major or sub-major with biochemistry and molecular biology or microbiology will prepare you for a career in the pharmaceutical, health or food industries. Alternatively, graduates who elect studies in the physical sciences, mathematics or business are well placed for careers in the manufacturing industry.

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Campbelltown Campus	Part Time	Internal
Parramatta Campus	Full Time	Internal
Parramatta Campus	Part Time	Internal

Accreditation

The Bachelor of Science (Chemistry) is accredited by The Royal Australian Chemical Institute (RACI).

Admission

Assumed Knowledge: At least two units of Biology, Chemistry, Mathematics and Physics.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Recommended sequence

Note: At least 60 credit points must be at Level 3 or above, including one elective unit

Year 1

Autumn session

300800.2 Essential Chemistry 1
300811.1 Scientific Literacy
300828.1 Physics 1

Choose one of

300802.1 Biodiversity
300831.2 Quantitative Thinking
200263.5 Biometry
200025.2 Discrete Mathematics
300580.2 Programming Fundamentals
300134.2 Introduction to Information Technology

Spring session

300803.1 Essential Chemistry 2

Choose one of

300672.2 Mathematics 1A
300830.2 Analysis of Change

Choose one of

300816.1 Cell Biology
300818.1 Introduction to Physiology
300829.1 Physics 2

300672.2 Mathematics 1A
300673.2 Mathematics 1B
200263.5 Biometry
300580.2 Programming Fundamentals

And one elective

Year 2

Autumn session

300876.1 Organic Chemistry
300832.1 Analytical Chemistry

Choose at least one of

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1
300845.1 Genetics
300865.1 Plant Physiology
300931.1 Integrated Science
200027.2 Linear Algebra
200028.3 Advanced Calculus

And one elective

Spring session

300899.1 Inorganic Chemistry
300849.2 Physical Chemistry

Choose at least one of

300848.1 Metabolism
300896.1 Microbiology 2
300817.1 Molecular Biology
300838.1 Comparative Physiology
300839.1 Ecology
300847.2 Immunology
200030.4 Differential Equations
301032.1 Making Sense of Data
301033.1 Introduction to Data Science
300959.1 Mangamai'bangawarra: Indigenous Science

And one elective

Year 3

Autumn session

300907.1 Advanced Inorganic Chemistry

Choose one of

300926.1 Advanced Physical Chemistry
300912.1 Molecular Pharmacokinetics

And two electives (one elective must be a Level 3 unit)

Spring session

300925.1 Advanced Analytical Chemistry
300906.1 Advanced Organic Chemistry

Capstone units
Choose one of

300924.1 Science Research Project
300883.1 Laboratory Quality Management

And one elective

Major and Sub-major elective spaces

Majors

Elective units may be used toward obtaining an additional approved major (80 credit points) or sub-major (40 credit points) including the majors and sub-majors listed below.

M3090.1 Biochemistry and Molecular Biology
M3080.1 General Biology
M3055.1 Microbiology

Sub-majors

SM3041.1 Biochemistry and Molecular Biology
SM3049.1 Immunology and Cell Biology
SM3050.1 Physics

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

Students who maintain a GPA of 5 or higher may use elective units toward obtaining an additional approved sub-major in Critical Thinking.

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Science (Environmental Science)

3680.2

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2014 or later

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

Solving the world's environmental problems will require professionals who are trained in the sciences underlying these issues and who understand the wider human and social contexts of the challenges faced. A Bachelor of Science (Environmental Science) will open up a wide range of career opportunities for those with environmental, conservation and ecological interests. A solid grounding in the underlying science is essential for people intending to work in this field, who will need to integrate knowledge across a range of disciplines, to devise solutions spanning the scientific and social issues involved. Some of the key areas in this degree include conservation biology, environmental analysis, regulation and policy, environmental chemistry, climate change science, microbiology, spatial data analysis, environmental geochemistry, biodiversity and adaptation, and ecology including marine and aquatic ecology. There are a range of majors (climate change and environmental management) and sub-majors (sustainability) offered in Science that can add diversity and/or focus to your degree. There are also a

range of sub-majors from other disciplines such as the arts, business, humanities and social sciences to choose from, although these may require cross campus study and are subject to availability and timetabling.

Study Mode
Three years full-time.

Location

Campus	Attendance	Mode
Hawkesbury Campus	Full Time	Internal
Hawkesbury Campus	Part Time	Internal

Admission
Assumed Knowledge: Any two units of English and any two units of Science (Biology or Chemistry recommended).

Recommended Studies: Geography.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Recommended Sequence
Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Note: At least 60 credit points must be at Level 3 or above, including one elective unit

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300824.1 Management of Aquatic Environments

Choose one of

300808.2 Introductory Chemistry
300800.2 Essential Chemistry 1

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
101646.2 Analysis of Spatial Data
300810.1 Resource Sustainability

Year 2

Autumn session

300837.1 Climate Change Science
300813.1 Wildlife Studies

Choose one of

300831.2 Quantitative Thinking
200263.5 Biometry

And one elective

Spring session

300839.1 Ecology
300841.1 Environmental Regulation and Policy

Choose at least one of

300836.1 Botany
300861.1 Vertebrate Biodiversity

And one elective

Year 3

Autumn session

300929.1 Aquatic Ecology
300857.1 Environmental Geochemistry

Choose at least one of

300833.1 Microbiology 1
300843.1 Forensic and Environmental Analysis

And one elective

Spring session

300855.1 Conservation Biology
300909.1 Biological Adaptation to Climate Change

Capstone unit

300918.1 Invertebrate Biology

And one elective

Major and Sub-major elective spaces
Elective units may be used toward obtaining an additional approved major (80 credit points) or sub-major (40 credit points) including the majors and sub-majors listed below.

Majors

M3081.1 Marine Biology
M3078.1 Climate Change
M3079.1 Conservation Biology
M3080.1 General Biology
M3082.1 Zoology
M3084.1 Environmental Consulting

Sub-majors

SM3062.1	Aquatic Environments
SM3048.1	Climate Change
SM3042.1	Conservation Biology
SM3079.1	Environmental Management
SM3044.1	Microbiology
SM3046.1	Sustainable Environmental Management
SM3063.1	Zoology

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

Students who maintain a GPA of 5 or higher may use elective units toward obtaining an additional approved sub-major in Critical Thinking.

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Science (Forensic Science)

3589.6

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course was 2015 or later.

This is a three year program that produces scientists who have a good background in the biological and chemical sciences, coupled with specialised expertise in forensic science, including methods of forensic analysis, crime scene investigation, forensic photography, forensic investigation, crime and criminal justice and complex case. Students may opt to further specialise in forensic biology, chemistry or microbiology by selecting additional electives or studies in a related or unrelated discipline. Career opportunities include forensic scientists, crime scene investigators, private investigators and consultants, police officers, drug analysts, researchers and academics, and specialised forensic science practitioners. The main employers of forensic scientists are State and Federal police services, State and Commonwealth Government Health Departments and analytical chemical laboratories. Graduates will be versatile with a wide skills base with (depending on their choice of electives) potential for employment in analytical chemistry and microbiology, quality control and assurance, biochemistry and molecular biology, scientific research, education and the chemical industry.

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Hawkesbury Campus	Full Time	Internal

Admission

Assumed Knowledge: Students should have successfully completed at least two of the following units: Biology, Chemistry or Mathematics.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Recommended Sequence

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Note: At least 60 credit points must be at Level 3 or above (one elective must be at least a Level 3 unit)

Year 1

Autumn session

300802.1	Biodiversity
300811.1	Scientific Literacy
300806.1	Forensic Science

Choose one of

300800.2	Essential Chemistry 1
300808.2	Introductory Chemistry

Spring session

300816.1	Cell Biology
300803.1	Essential Chemistry 2
300874.2	Digital Forensic Photography

Choose one of

200263.5	Biometry
300831.2	Quantitative Thinking

Year 2

Autumn session

300843.1	Forensic and Environmental Analysis
300845.1	Genetics

300825.2 Introduction to Anatomy

And one elective

Spring session

300873.2 Crime Scene Investigation
300817.1 Molecular Biology
401171.1 Imaging Science

And one elective

Year 3

Autumn session

300981.1 Environmental Forensic Investigations
300868.1 Forensic Chemistry
300882.1 Forensic Archaeology

And one elective unit

Spring session

300911.1 Complex Forensic Studies
401170.1 Forensic Biology

Choose one of

300877.1 Toxicology
101567.4 Evidence, Investigations and Police Intelligence

And one elective

Sub-majors

SM3041.1 Biochemistry and Molecular Biology
SM3044.1 Microbiology
SM3049.1 Immunology and Cell Biology
SM3064.1 Environmental Forensics

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Science (Mathematical Science)

3679.3

Students should follow the course structure for the course version relevant to the year they commenced. This course version applies to students who commenced study in this course in 2015 or later.

A Bachelor of Science (Mathematical Science) provides you with a strong background in key analytical techniques that have contemporary applications such as the treatment and interpretation of data and the modelling of real-world problems such as global warming. You will develop skills that allow you to model and solve real world problems using mathematical techniques and have the opportunity to specialise in mathematics, statistics or a combination of both. This will provide you with a wide range of career options in commercial and government institutions, which require highly-skilled problem-solvers. There are also a range of majors (e.g. Biology, chemistry) and sub-majors offered in Science that can add diversity and/or focus to your degree. There are also a range of sub-majors from other disciplines such as the arts, business, humanities and social sciences to choose from, although these may require cross campus study and are subject to availability and timetabling.

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Parramatta Campus	Full Time	Internal

Admission

Recommended Studies: Mathematics.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Recommended Sequence

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Year 1

Autumn session

300672.2 Mathematics 1A
300811.1 Scientific Literacy
200025.2 Discrete Mathematics

Choose one of

300802.1 Biodiversity
300800.2 Essential Chemistry 1
300828.1 Physics 1
300808.2 Introductory Chemistry

Spring session

301031.1 Computer Algebra
300673.2 Mathematics 1B
200263.5 Biometry

Choose one of the following science foundation core units

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300829.1 Physics 2

Year 2

Autumn session

200027.2 Linear Algebra
200028.3 Advanced Calculus
300580.2 Programming Fundamentals

And one elective

Spring session

200030.4 Differential Equations
301032.1 Making Sense of Data

And one elective

Year 3

Autumn session

200193.2 Abstract Algebra
301034.1 Predictive Modelling
200023.3 Analysis

And one elective

Spring session

301035.1 Environmental Informatics
200022.3 Mathematical Modelling
200045.3 Quantitative Project

And one elective

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

Students who maintain a GPA of 5 or higher may use elective units toward obtaining an additional approved sub-major in Critical Thinking.

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Science - Pathway to Teaching (Secondary)

3638.6

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

The Bachelor of Science - Pathway to Teaching (Secondary) will allow you to focus on a science program of your choice and to structure your units of study to gain the necessary learning areas to satisfy the NSW Institute of Teachers discipline kowledge requirements for entry into teaching. It also gives the advantage of early access to Education Studies units through mandatory completion of an Education Studies submajor.

Graduates of this degree who complete the requisite units to meet the requirements of the Institute will receive guaranteed entry into the Master of Teaching.

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Hawkesbury Campus	Full Time	Internal
Parramatta Campus	Full Time	Internal

Accreditation

The Bachelor of Science (Chemistry) is accredited by The Royal Australian Chemical Institute Incorporated (RACI).

Admission

At least two of Biology, Chemistry, Mathematics (excluding General Mathematics) and Physics at HSC level.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International. International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualifying for this award requires successful completion of 240 credit points within the following rules

Students completing the biological sciences program must follow the course structure for 3677 Bachelor of Science (Biological Science)

Students completing the chemistry program must follow the course structure for 3676 Bachelor of Science (Chemistry)

Students completing the mathematical sciences program must follow the course structure for 3679 Bachelor of Science (Mathematical Science)

Students completing other science programs must follow the course structure for 3675 Bachelor of Science

In addition, all students must complete the mandatory 40 credit point sub-major in Education Studies (SM1100 Education Studies). Students must meet this requirement by choosing the units from SM1100 as electives within their Bachelor of Science program.

SM1100.1 Education Studies

Sub-majors

SM3039.1 Statistics

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Science (Nutrition & Food Sciences)

3678.2

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

There is more to healthy eating than you realise. This program will help you understand nutrition and the science behind food. A Bachelor of Science (Nutrition and Food Science) will prepare you for the future by developing the skills and knowledge to solve future challenges in nutrition and health, food quality and security. Students will develop a strong foundation in the biological and chemical sciences to needed underpin their studies, with majors in 'Human Nutrition' or 'Food Science and Technology' that will allow further specialisation. Career opportunities include community nutrition and health, health promotion, new food product development, quality assurance, and food technology secondary teaching. The program has strong industry and community links, well-equipped facilities including food processing pilot plant and modern kitchen facilities.

A major in Human Nutrition (M3059) investigates healthy eating as a vital part of good health. The major covers nutrition, food and health, with specialised studies in community nutrition, public health nutrition, human physiology, health promotion and food studies. The major prepares students for careers in community nutrition, health promotion and education, or work in a range of food and nutrition related businesses, including new product development of healthy foods. Students seeking to do postgraduate studies in Nutrition and Dietetics are advised to select a double major of Nutrition and Physiology (M3058) with the Human Nutrition major and complete further studies in metabolism and advanced physiology.

A major in Food Science and Technology (M3057) explores the science behind food, its preparation and manufacture. The major covers specialised topics in food processing, food safety, quality assurance, new product development, postharvest, packaging, microbiological and chemical analysis. The major prepares students for a wide range of careers in the food and beverage related industries, including food product development, quality assurance, management of the fresh food supply, food regulations, research and development.

Students seeking to be secondary Food Technology teachers are advised to select a Sub-major in Education Studies (SM1100) in preparation for Master of Teaching in their fourth year of study. This program will satisfy the requirements of the NSW Institute of Teachers for first teaching areas of 'Food Technology' and 'Biology', with further teaching areas possible in 'chemistry', 'physics', or 'design and technology' depending on the electives selected.

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Hawkesbury Campus	Full Time	Internal
Hawkesbury Campus	Part Time	Internal

Admission

Assumed Knowledge: At least two of the following subjects - 2 unit Biology, 2 unit Chemistry or 2 unit Mathematics.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Recommended Sequence

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Note 1: At least 60 credit points must be at Level 3 or above. Some students may need to take one elective as a Level 3 unit.

Note 2: Students must also satisfactorily complete a minimum of ten weeks Approved Industrial Experience, the

time can be accrued throughout the duration of your course. The work experience will be recognised by achieving Satisfactory grade in the final semester core unit 300655 - Approved Industrial Experience.

Note 3: Students completing the SM1100 - Education Studies Sub-major will need to complete two units from the sub major instead of two electives from the recommended sequence below.

SM1100.1 Education Studies

Start Year Intake

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300831.2 Quantitative Thinking

Choose one of

300808.2 Introductory Chemistry
300800.2 Essential Chemistry 1

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300805.1 Food Science 1

And one elective

Year 2

Autumn session

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1
300842.2 Food Science 2
300933.1 Nutrition and Health 1

Spring session

300879.1 Experimental Foods

Human Nutrition Major

300934.1 Nutrition and Health 2
300818.1 Introduction to Physiology

And one elective

Food Science and Technology Major

300859.1 Food Safety
300869.1 Postharvest

And one elective

Year 3

Autumn session

300922.1 Quality Assurance and Food Analysis

Human Nutrition Major

300928.1 Consumer Issues in Nutrition

300871.1 Culinary Science

And one elective

Food Science and Technology major

300871.1 Culinary Science

Choose one of

300866.1 Analytical Microbiology
300843.1 Forensic and Environmental Analysis

Or Education Studies sub-major unit

And one elective

Spring session

300915.1 Food Product Development

All students must satisfactorily complete the unit 300655 - Approved Industrial Experience (10 weeks), comprising a minimum of ten weeks Approved Industrial Experience.

300655.2 Approved Industrial Experience

Human Nutrition Major

300908.1 Applied Nutrition
300917.1 Global Nutrition, Food and Community

And one elective

Food Science and Technology Major

300904.1 Advanced Food Science and Technology

Choose one of

300883.1 Laboratory Quality Management

Or Education sub-major unit

And one elective

Students seeking to be secondary Food Technology teachers are also able to select a Sub-major in Education Studies (SM1067) in preparation for Master of Teaching in the fourth year of study. This program will satisfy the requirements of the NSW Institute of Teachers for first teaching areas of ‘Food Technology’ and ‘Biology’, with further teaching areas possible in ‘chemistry’, ‘physics’, or ‘design and technology’ depending on the electives selected.

SM1067.1 Education Studies

Recommended Sequence

Mid Year Intake

Year 1

Spring session

300816.1 Cell Biology
300811.1 Scientific Literacy
300831.2 Quantitative Thinking
300805.1 Food Science 1

Autumn session

300802.1 Biodiversity
300842.2 Food Science 2
300933.1 Nutrition and Health 1

Choose one of

300808.2 Introductory Chemistry
300800.2 Essential Chemistry 1

Year 2

Spring session

300879.1 Experimental Foods
300803.1 Essential Chemistry 2

Human Nutrition Major

300934.1 Nutrition and Health 2
300818.1 Introduction to Physiology

Food Science and Technology Major

300859.1 Food Safety
300869.1 Postharvest

Autumn session

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1
300922.1 Quality Assurance and Food Analysis

And one elective

Year 3

Spring session

300915.1 Food Product Development

Human Nutrition Major

300908.1 Applied Nutrition
300917.1 Global Nutrition, Food and Community

And one elective

Food Science and Technology major

300904.1 Advanced Food Science and Technology
300883.1 Laboratory Quality Management

Or Education sub-major unit

And one elective

Autumn session

300871.1 Culinary Science

Students must also satisfactorily complete a minimum of 10 weeks Approved Industrial Experience, the time can be accrued throughout the duration of your course. The work experience will be recognised by achieving Satisfactory grade in the final semester core unit 300655 - Approved Industrial Experience.

300655.2 Approved Industrial Experience

Human Nutrition Major

300928.1 Consumer Issues in Nutrition

Food Science and Technology Major

Choose one of

300866.1 Analytical Microbiology
300843.1 Forensic and Environmental Analysis

Or Education Studies sub-major unit

And two electives

Students seeking to be secondary Food Technology teachers are also able to select a Sub-major in Education Studies (SM1067) in preparation for Master of Teaching in the fourth year of study. This program will satisfy the requirements of the NSW Institute of Teachers for first teaching areas of 'Food Technology' and 'Biology', with further teaching areas possible in 'chemistry', 'physics', or 'design and technology' depending on the electives selected.

SM1067.1 Education Studies

Major and Sub-major elective spaces

Elective units may be used toward obtaining an additional approved major (80 credit points) or sub-major (40 credit points) including the majors and sub-majors listed below.

Majors

M3090.1 Biochemistry and Molecular Biology
M3057.1 Food Science & Technology
M3052.1 General Biology
M3059.1 Human Nutrition
M3055.1 Microbiology
M3089.1 Nutrition and Physiology

Sub-majors

SM3041.1 Biochemistry and Molecular Biology
SM1067.1 Education Studies
SM3038.1 Food Technology - Secondary Teaching
SM3049.1 Immunology and Cell Biology
SM3044.1 Microbiology

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

Students who maintain a GPA of 5 or higher may use elective units toward obtaining an additional approved sub-major in Critical Thinking.

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Science (Zoology)

3681.2

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2014 onwards.

A Bachelor of Science (Zoology) recognises the increased demand for scientific knowledge of how to conserve, protect and care for animals, including native wildlife, and companion and production animals. It will enable you to develop an in--depth scientific understanding of how animals function and interact with their environment; from their ecology and evolution; to physiology and biochemistry of tissues and major organs systems, as well as the structure and function of biomolecules and cells. The key learning and research areas embodied in this degree are ecology, evolution, physiology, growth, reproduction, genetics, and conservation biology. On-campus animal facilities include those for reptiles, small marsupials, small rodents, horses, sheep and cattle, as well as over 1,000ha of native, rural and aquatic habitats.

Study Mode

Three years full-time.

Location

Campus	Attendance	Mode
Hawkesbury Campus	Full Time	Internal
Hawkesbury Campus	Part Time	Internal

Admission

Assumed Knowledge: Any two units of English and any two units of Science.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Recommended Sequence

Qualification for this award requires the successful completion of 240 credit points which include the units listed in the recommended sequences below.

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300813.1 Wildlife Studies

Choose one of

300800.2 Essential Chemistry 1
300808.2 Introductory Chemistry

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300801.1 Animal Science

Choose at least one of

300831.2 Quantitative Thinking
200263.5 Biometry

Year 2

Autumn session

300834.1 Animal Health and Welfare
300936.1 Functional Proteins and Genes
300980.1 Principles of Evolution

And one elective

Spring session

300979.1 Principles of Zoology
300838.1 Comparative Physiology
300839.1 Ecology

And one elective

Year 3

Autumn session

300878.1 Animal Behaviour
300978.1 Marine and Aquatic Ecology

And two electives

Spring session

300855.1 Conservation Biology
300918.1 Invertebrate Biology
300861.1 Vertebrate Biodiversity

Choose one of the following capstone units:

300909.1 Biological Adaptation to Climate Change
300924.1 Science Research Project

Major and Sub-major elective spaces

Elective units may be used toward obtaining an additional approved major (80 credit points) or sub-major (40 credit points) including the majors and sub-majors listed below.

Majors

M3081.1	Marine Biology
M3090.1	Biochemistry and Molecular Biology
M3078.1	Climate Change
M3079.1	Conservation Biology
M3080.1	General Biology
M3084.1	Environmental Consulting

Sub-majors

SM3062.1	Aquatic Environments
SM3041.1	Biochemistry and Molecular Biology
SM3048.1	Climate Change
SM3042.1	Conservation Biology
SM3049.1	Immunology and Cell Biology
SM3044.1	Microbiology

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Bachelor of Science/Bachelor of Arts

3658.5

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

This double degree program is designed for students whose interests span the Arts and Sciences. It will produce versatile graduates who can work across a range of academic and professional disciplines, including the opportunity to develop global perspectives and communication skills in an Asian language. In the Science area, students can design their own academic program within the Bachelor of Science course structure, which must include a science Major. This qualification in science can be combined with one of the following majors: Asian Studies and International Relations; Cultural and Social Analysis; English, Text and Writing; History and Political Thought; Indigenous Australian Studies; Chinese; Japanese.

Study Mode

Four years full-time.

Location

Campus	Attendance	Mode
Parramatta Campus	Full Time	Internal

Admission

Local students will normally be admitted through UAC. The following sets of Assumed Knowledge and Recommended Studies apply.

Bachelor of Science

Assumed knowledge: At least two of Biology, Chemistry, Mathematics, Physics.

Bachelor of Arts

Assumed knowledge: Two units of HSC English at Band 4

Recommended studies: HSC English Standard, or equivalent

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via the UWS International office.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 320 credit points as prescribed in the structure below. Students who complete this award will graduate with a Bachelor of Science and a Bachelor of Arts.

Note: At least 60 credit points must be at Level 3 or above.

Students who wish to exit this double degree after their third year and graduate with a Bachelor of Science must have completed 240 credit points and completed the units as listed below in Years 1, 2 and 3.

Students completing the Bachelor of Science portion of this double degree must complete one of the Science majors listed in the first three years of study.

The conceptual design of this Bachelor of Science/Bachelor of Arts double degree is as follows.

Years 1 to 3

Students will complete 160 credit points of Bachelor of Science units as listed in the course structure below.

In Years 1 to 4 they will complete the four Bachelor of Arts (BA) core units, eight Bachelor of Arts major units from one of the following Bachelor of Arts majors and four Bachelor of Arts sub-major units from one of the sub-majors listed:

BA Majors

• Arabic

- Chinese
- Cultural and Social Analysis
- English
- History and Political Thought
- Indonesian
- International Relations and Asian Studies
- Japanese
- Philosophy

BA sub-majors

- Arabic
- Chinese
- Cultural and Social Analysis
- English
- History and Political Thought
- Indonesian
- International Relations and Asian Studies
- Japanese
- Philosophy

Arts Units

For details of the relevant Arts units, refer to the current listing of Bachelor of Arts.

Recommended Sequence

For the Science component of this degree students must study 16 Science units of which a minimum of 8 units must be from one of the Science majors: Biochemistry and Molecular Biology, Chemistry, General Biology, or Mathematics.

Consult the handbook entry for the Bachelor of Science degree course for further details about the science majors.

Year 1

Autumn session

Two Core Arts units from the list below

100960.2 Contemporary Society
100846.2 Analytical Reading and Writing
100958.2 Australia and the World
100968.3 Texts and Traditions

Two science units: choose two science units appropriate for your science major as follows

Non-mathematics majors

Biochemistry and Molecular Biology major choose

300802.1 Biodiversity

And one of the following units

300800.2 Essential Chemistry 1
300808.2 Introductory Chemistry

General Biology major choose

300802.1 Biodiversity

And one Science unit from the list below

Chemistry major choose

300800.2 Essential Chemistry 1

And one Science unit from the list below

Science Units

300802.1 Biodiversity
300828.1 Physics 1
300580.2 Programming Fundamentals
300134.2 Introduction to Information Technology
300808.2 Introductory Chemistry

Note: Chemistry students must choose only one chemistry unit

Mathematics major choose

300672.2 Mathematics 1A
200025.2 Discrete Mathematics

Spring session

Two Core Arts units from the list below

100958.2 Australia and the World
100968.3 Texts and Traditions
100960.2 Contemporary Society
100846.2 Analytical Reading and Writing

Two science units: choose two science units appropriate for your science major as follows

Non-mathematics majors

Biochemistry and Molecular Biology major

300816.1 Cell Biology
300803.1 Essential Chemistry 2

Chemistry major choose

300803.1 Essential Chemistry 2

And one science units from the list below

General Biology major

300816.1 Cell Biology

And one science units from the list below

Science units

300802.1 Biodiversity
300803.1 Essential Chemistry 2
300818.1 Introduction to Physiology
300829.1 Physics 2
300580.2 Programming Fundamentals
300134.2 Introduction to Information Technology

Mathematics majors choose

300673.2 Mathematics 1B
200263.5 Biometry

Year 2

The remainder of the course structure will display as soon as available

Bachelor of Science/Bachelor of Business and Commerce

3659.5

Students should follow the course structure for the course version relevant to the year they commenced. This course version applies to students who commenced study in this course in 2015 or later.

The Bachelor of Science/Bachelor of Business and Commerce double degree program allows graduates to span both the commercial and scientific worlds in a way that single degree graduates cannot. The double degrees permit students to undertake multi-skilling, and offer diverse career paths providing high marketability in multiple areas of expertise. Graduates will have a solid grounding in a core science discipline such as Biological Sciences, Chemistry or Mathematics. This qualification in science is combined with one of the following Majors from the Bachelor of Business and Commerce: Applied Finance; Economics; Hospitality Management; Human Resource Management; Management; Marketing; Sport Management. Graduates will be equipped to work as scientists, with a good understanding of business principles and practices. Alternatively, as Business and Commerce graduates they will be well-prepared to work in science-based industries and institutions.

Study Mode
Four years full-time

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal
Parramatta Campus	Full Time	Internal

Accreditation
The Bachelor of Science (Chemistry) is accredited by The Royal Australian Chemical Institute (RACI). Major MT2011 - Applied Finance is accredited with the Financial Services Institute of Australasia (Finsia). Major MT2012 - Human Resource Management is accredited with the Australian Human Resources Institute (AHRI). Major MT2006 - Marketing satisfies the educational requirements for recognition as a Certified Practising Marketer and eligibility for membership of the Australian Marketing Institute (AMI) and the Australian Market and Social Research Society (AMSRS).

Admission
Eligibility for admission to the Bachelor Science/Bachelor of Business and Commerce is based on the following requirements:

The following sets of Assumed Knowledge and Recommended Studies apply:

Bachelor of Science

Assumed knowledge: At least two of Biology, Chemistry, Mathematics, Physics at HSC level.

Bachelor of Business and Commerce

Assumed knowledge: HSC Mathematics and any two units of HSC English.

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS

Course Structure
Qualification for this award requires the successful completion of 320 credit points as prescribed in the structure below.

Note: At least 60 credit points must be at Level 3 or above.

Students who complete this award will graduate with a Bachelor of Science and a Bachelor of Business and Commerce.

Science component: students must study 16 Science units following one of the following programs:

- Bachelor of Science (Biological Sciences)
- Bachelor of Science (Chemistry)
- Bachelor of Science (Mathematical Science)
- Bachelor of Science (called ""Science Major"" in the structure below)

Bachelor of Science (Science Major in the structure below)

Students following the Bachelor of Science [Science Major] program must choose five Level 1 units within the following rules

- At least one mathematics or statistics unit

- Remaining units must cover at least two of the following scientific disciplines: chemistry, biology, physics, computing

Students following the Bachelor of Science (Science Major) program must complete at least one of the following specialisations/majors:

M3090.1 Biochemistry and Molecular Biology
M3047.1 Chemistry
M3080.1 General Biology
M3054.1 Mathematics

And one Level 3 capstone unit

Consult the handbook entry for the Bachelor of Science degree courses for further details about the science majors.

Bachelor of Business and Commerce

Students within this course will be permitted to undertake the following majors within 2753 Bachelor of Business and Commerce

Please note that not all majors are offered on both Campbelltown and Parramatta campus.

Recommended Sequence

Qualification for this award requires the successful completion of 320 credit points as prescribed in the structure below.

Year 1

Autumn session

Bachelor of Business and Commerce Core Units

200336.4 Business Academic Skills
200083.2 Marketing Principles

Students must select Bachelor of Science units depending on their major:

Biological Sciences Major

300802.1 Biodiversity

Choose one of

300808.2 Introductory Chemistry
300800.2 Essential Chemistry 1

Chemistry Major

300800.2 Essential Chemistry 1
300828.1 Physics 1

Mathematics Major

300672.2 Mathematics 1A
200025.2 Discrete Mathematics

Science Major

Choose two of the following

300802.1 Biodiversity
300828.1 Physics 1
300580.2 Programming Fundamentals
300134.2 Introduction to Information Technology
300831.2 Quantitative Thinking
300830.2 Analysis of Change
300672.2 Mathematics 1A
200025.2 Discrete Mathematics
300808.2 Introductory Chemistry

Or

300800.2 Essential Chemistry 1

Note: Students may only choose one unit from 300808 - Introductory Chemsitry or 300800 - Essential Chemistry

Spring session

Bachelor of Business and Commerce Core Units

200101.4 Accounting Information for Managers
200571.4 Management Dynamics

Students must select Bachelor of Science units depending on their major

Biological Sciences Major Units

300816.1 Cell Biology
300803.1 Essential Chemistry 2

Chemistry Major Units

300803.1 Essential Chemistry 2

Choose one of the following

300816.1 Cell Biology
300818.1 Introduction to Physiology
300829.1 Physics 2
300831.2 Quantitative Thinking

Mathematics Major Units

300673.2 Mathematics 1B
200263.5 Biometry

Science Major Units

Choose two of the following

300803.1 Essential Chemistry 2
300816.1 Cell Biology
300818.1 Introduction to Physiology
300829.1 Physics 2
300580.2 Programming Fundamentals
300134.2 Introduction to Information Technology
300831.2 Quantitative Thinking
200263.5 Biometry
300672.2 Mathematics 1A
300673.2 Mathematics 1B

Year 2

Autumn session

Bachelor of Business and Commerce Core Units

200032.5 Statistics for Business
200184.3 Introduction to Business Law

Students must select Bachelor of Science units depending on their major:

Biological Sciences Major Units

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1

Chemistry Major Units

Choose one of

300832.1 Analytical Chemistry
300876.1 Organic Chemistry

Choose one of

300672.2 Mathematics 1A
300830.2 Analysis of Change

Mathematics Major Units

300580.2 Programming Fundamentals

Choose one of

300802.1 Biodiversity
300828.1 Physics 1
300134.2 Introduction to Information Technology
300808.2 Introductory Chemistry
300800.2 Essential Chemistry 1

Science Major Units

Choose one of

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1
300845.1 Genetics
300865.1 Plant Physiology
300931.1 Integrated Science
300832.1 Analytical Chemistry
300876.1 Organic Chemistry
200027.2 Linear Algebra
200028.3 Advanced Calculus

Choose one of

300802.1 Biodiversity
300828.1 Physics 1
300580.2 Programming Fundamentals
300134.2 Introduction to Information Technology
300831.2 Quantitative Thinking
300830.2 Analysis of Change
300672.2 Mathematics 1A
200025.2 Discrete Mathematics
300808.2 Introductory Chemistry

Or

300800.2 Essential Chemistry 1

Note: Students may only choose one unit from 300808 - Introductory Chemsitry or 300800 - Essential Chemistry

Spring session

Bachelor of Business and Commerce Units

200525.3 Principles of Economics

And one Bachelor of Business and Commerce Major unit

Students must select Bachelor of Science units depending on their major:

Biological Sciences Major unit

300817.1 Molecular Biology

Choose one of

300831.2 Quantitative Thinking
200263.5 Biometry

Chemistry Major Units

Choose one of

300899.1 Inorganic Chemistry
300849.2 Physical Chemistry

Choose one of

300816.1 Cell Biology
300818.1 Introduction to Physiology
300829.1 Physics 2
300580.2 Programming Fundamentals
300134.2 Introduction to Information Technology

Mathematics Major Units

200030.4 Differential Equations

Choose one of

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300818.1 Introduction to Physiology
300829.1 Physics 2
300134.2 Introduction to Information Technology

Science Major Units

Choose two of

300848.1 Metabolism
300896.1 Microbiology 2
300817.1 Molecular Biology
300847.2 Immunology
300839.1 Ecology
300838.1 Comparative Physiology
300899.1 Inorganic Chemistry
300849.2 Physical Chemistry
200030.4 Differential Equations
301033.1 Introduction to Data Science
301032.1 Making Sense of Data

Year 3

Autumn session

Bachelor of Business and Commerce Units

Students select two units from their Bachelor of Business and Commerce Major

Students must select Bachelor of Science units depending on their major

Biological Sciences Major

300845.1 Genetics

Choose one of

300865.1 Plant Physiology
300931.1 Integrated Science

Chemistry Major Unit

Choose one of

300876.1 Organic Chemistry
300832.1 Analytical Chemistry

Choose one of

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1
300845.1 Genetics
300865.1 Plant Physiology
300931.1 Integrated Science

Mathematics Major Units

200027.2 Linear Algebra
200028.3 Advanced Calculus

Science Major Units

Choose two of

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1
300845.1 Genetics
300865.1 Plant Physiology
300931.1 Integrated Science
300876.1 Organic Chemistry
300832.1 Analytical Chemistry
200027.2 Linear Algebra
200028.3 Advanced Calculus

Spring session

Bachelor of Business and Commerce Units

Students select two units from their Bachelor of Business and Commerce Major

Students must select Bachelor of Science units depending on their major

Biological Sciences Major

Choose one of

300848.1 Metabolism
300896.1 Microbiology 2
300838.1 Comparative Physiology
300847.2 Immunology
300839.1 Ecology

Chemistry Major Units

Choose one of

300899.1 Inorganic Chemistry
300849.2 Physical Chemistry

Choose one of

300925.1 Advanced Analytical Chemistry
300906.1 Advanced Organic Chemistry

Mathematics Major Units

200022.3 Mathematical Modelling

Choose one of

301032.1 Making Sense of Data
301033.1 Introduction to Data Science

Science Major Units

Choose one of

300848.1 Metabolism
300896.1 Microbiology 2
300817.1 Molecular Biology
300838.1 Comparative Physiology
300847.2 Immunology
300839.1 Ecology
300899.1 Inorganic Chemistry
300849.2 Physical Chemistry
200030.4 Differential Equations
301032.1 Making Sense of Data
301033.1 Introduction to Data Science

Choose one of

300905.1 Advanced Immunology
300826.1 Medical Microbiology
300855.1 Conservation Biology
300925.1 Advanced Analytical Chemistry
300906.1 Advanced Organic Chemistry
301035.1 Environmental Informatics
200022.3 Mathematical Modelling

Year 4

Autumn session

Bachelor of Business and Commerce Units

Students select two units from their Bachelor of Business and Commerce Major

Students must select Bachelor of Science units depending on their major

Biological Sciences Major

Choose two of

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology
300819.1 Topics in Physiology

Chemistry Major Units

300907.1 Advanced Inorganic Chemistry

Choose one of

300926.1 Advanced Physical Chemistry
300912.1 Molecular Pharmacokinetics

Mathematics Major Units

Choose one of

200193.2 Abstract Algebra
301034.1 Predictive Modelling
200023.3 Analysis

Science Major Units

Choose two of

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology
300819.1 Topics in Physiology
300907.1 Advanced Inorganic Chemistry
200193.2 Abstract Algebra
301034.1 Predictive Modelling
200023.3 Analysis
300926.1 Advanced Physical Chemistry

Or

300912.1 Molecular Pharmacokinetics

Note: Students may only choose one unit from 300926 - Advanced Physical Chemistry or 300912 - Molecular Pharmacokinetics

Chemistry Major Units

Spring session

Bachelor of Business and Commerce Units

Students select one unit from their Bachelor of Business and Commerce Major

Students must select one unit from the Bachelor of Business and Commerce Capstone Engaged Learning units

Students must select Bachelor of Science units depending on their major

Biological Sciences Major

Choose two of

300905.1 Advanced Immunology
300826.1 Medical Microbiology

Capstone units:

300927.2 Molecular Medicine
300924.1 Science Research Project
300855.1 Conservation Biology

Chemistry Major Units

Choose two of

300925.1 Advanced Analytical Chemistry
300906.1 Advanced Organic Chemistry

Capstone units

300924.1 Science Research Project
300883.1 Laboratory Quality Management

Mathematics Major Units

301035.1 Environmental Informatics

Capstone unit

200045.3 Quantitative Project

Science Major Units

Choose two of

300905.1 Advanced Immunology
300826.1 Medical Microbiology
300927.2 Molecular Medicine
300855.1 Conservation Biology
300924.1 Science Research Project
300925.1 Advanced Analytical Chemistry
300906.1 Advanced Organic Chemistry
300883.1 Laboratory Quality Management
200045.3 Quantitative Project
301035.1 Environmental Informatics
200025.2 Discrete Mathematics

Bachelor of Science/Bachelor of International Studies

3660.5

Students should follow the course structure for the course version relevant to the year they commenced. This course version applies to students who commenced study in this course in 2015 or later.

This double degree program is designed for students who want to combine their interest and expertise in science with a sophisticated understanding of international issues and systems. This will equip them to work in globalised science-based professions and industries. In the Science area, students can design their own academic program within the Bachelor of Science course structure, which must include a science Major. This will be combined with a degree in International Studies that examines the relationships of societies, cultures, languages and systems of government within the international system. It develops students' capacity to analyse the historical development of relations among nation states and contemporary political, social and cultural issues, such as globalisation, transnationalism and migration. Students complete a major in International Relations and Asian Studies, and sub-majors are available in Japanese or Chinese.

Study Mode

Four years full-time.

Location

Campus	Attendance	Mode
Parramatta Campus	Full Time	Internal

Accreditation

The Bachelor of Science (Chemistry)/Bachelor of International Studies is accredited by The Royal Australian Chemical Institute Incorporated (RACI).

Admission

Local students will normally be admitted through UAC. The following sets of Assumed Knowledge and Recommended Studies apply.

Assumed Knowledge: At least two of Biology, Chemistry, Mathematics and Physics

Local students will normally be admitted through UAC. The following sets of Assumed Knowledge and Recommended Studies apply.

Bachelor of Science

Assumed knowledge: At least two of Biology, Chemistry, Mathematics, Physics.

Bachelor of International Studies

Assumed knowledge: Two units of HSC English at Band 4

Recommended studies: HSC English Standard, or equivalent

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International.

International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Course Structure

Qualification for this award requires the successful completion of 320 credit points as prescribed in the structure below. Students who complete this award will graduate with a Bachelor of Science and a Bachelor of International Studies.

Note: At least 60 credit points must be at Level 3 or above.

Students who wish to exit this double degree after their third year and graduate with a Bachelor of Science must have completed 240 credit points and completed the units as listed below in Years 1, 2 and 3.

Students completing the Bachelor of Science portion of this double degree must complete one of the Science majors listed, in the first three years of study.

The conceptual design of this BSc/BIS double degree is as follows:

Years 1 to 3

Students complete 160 credit points of Bachelor of Science units as listed in the course structure below.

In Years 1 to 4 students complete the four Bachelor of Science/Bachelor of International Studies core units and 12 Bachelor of International Studies units as offered on Parramatta campus only:

• International Relations and Asian Studies major and

Sub-majors are available in the BIS course as follows:

- Arabic
- Chinese
- Indonesian
- Japanese

Bachelor of International Studies Units

For details of the relevant International Studies units, refer to the current listing of Bachelor of International Studies, course code 1658 - Bachelor of International Studies. Continuing students should refer to the earlier versions of 1658 -Bachelor of International Studies.

For the Science component of this double degree students must study 16 Science units of which a minimum of 8 units must be from one of the Science majors: Biochemistry and Molecular Biology, Chemistry, General Biology or Mathematics.

Consult the handbook entry for the Bachelor of Science degree course for further details about the science majors.

Recommended Sequence

Year 1

Autumn session

Choose two core Arts units from the following

100960.2 Contemporary Society
100846.2 Analytical Reading and Writing
100958.2 Australia and the World
100968.3 Texts and Traditions

Two science units: choose two science units appropriate for your science major as follows

Non-mathematics majors

Biochemistry and Molecular Biology major choose one of

300800.2 Essential Chemistry 1

Or

300808.2 Introductory Chemistry

General Biology major choose

300802.1 Biodiversity

And one science unit from the list below

Chemistry major choose

300800.2 Essential Chemistry 1

And one science unit from the list below

Science Units

300802.1 Biodiversity
300828.1 Physics 1
300580.2 Programming Fundamentals
300134.2 Introduction to Information Technology
300800.2 Essential Chemistry 1

Or

300808.2 Introductory Chemistry

*Students are to select only one Chemistry unit

Mathematics major choose

300672.2 Mathematics 1A
200025.2 Discrete Mathematics

Spring session

Choose two Core Arts units from the list below

100958.2 Australia and the World
100968.3 Texts and Traditions
100960.2 Contemporary Society
100846.2 Analytical Reading and Writing

Two science units: choose two science units appropriate for your science major as follows

Non-mathematics majors choose two units as follows

Biochemistry and Molecular Biology major

300816.1 Cell Biology
300803.1 Essential Chemistry 2

Chemistry major choose

300803.1 Essential Chemistry 2

And one science unit from the list below

General Biology major choose

300816.1 Cell Biology

Science units

300802.1 Biodiversity
300803.1 Essential Chemistry 2
300818.1 Introduction to Physiology
300829.1 Physics 2
300580.2 Programming Fundamentals
300134.2 Introduction to Information Technology

Mathematics majors choose

300673.2 Mathematics 1B
200263.5 Biometry

Year 2

The remainder of the course structure will display as soon as available

Bachelor of Traditional Chinese Medicine

4710.1

This course prepares graduates for careers as practitioners of Traditional Chinese Medicine. Traditional Chinese medicine practitioners are usually either self-employed in private practice or work as a member of a team in a clinic that offers a range of therapies. They practice as acupuncturists and treating clients using Chinese herbal medications. There are also opportunities in medical research, product development, management and sales roles in pharmaceutical and herbal companies.

The course in Traditional Chinese Medicine is offered as a 4-year Bachelor of Traditional Chinese Medicine. The first three years of the program combine studies in traditional Chinese medicine, acupuncture and Chinese herbal medicine with a broad understanding of biomedicine and various health science fields to develop the professional competencies important for ethical and safe practice and high quality care and the skills to work in multidisciplinary teams. The final year focuses predominately on practical experience and specialised areas. Part of the clinical experience can be taken through an intensive clinical placement in China. Evidence-based practice is one of the most important trends in healthcare today and a strong feature of the program.

Study Mode
Four years full-time

Location

Campus	Attendance	Mode
Campbelltown Campus	Full Time	Internal

Accreditation
Accreditation for this course is currently being sought

Admission
Assumed knowledge: any 2 units of English.

Recommended studies: Biology

Applications from Australian and New Zealand citizens and holders of permanent resident visas must be made via the Universities Admissions Centre (UAC).

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local and International applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to UWS should also use the information provided on the UAC website.

International applicants must apply directly to the University of Western Sydney via UWS International. International students applying to UWS through UWS International can find details of minimum English proficiency requirements and acceptable proof on the UWS International website.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS.

Special Requirements
In order to enrol in Second Year Autumn units, all students must have: National Police Certificate and a Working with Children Check Student Declaration. In order to enrol in Second Year Spring units, all students must have a First Aid Certificate (including cardiopulmonary resuscitation). To be eligible to undertake clinical placements in public hospitals, students must comply with vaccination requirements and be prepared to submit a completed Adult Immunisation Card to placement institutions. NSW Health can provide details of necessary vaccinations. To meet NSW health requirements for clinical placements, second year students will be required to attend a 'bulk compliance' appointment to have their special requirements verified by NSW Health staff. To be eligible to undertake field/work/ practice placements, students must also comply with the NSW Health Records and Information Privacy Act (2004) and complete a relevant declaration.

Course Structure

Qualification for this award requires the successful completion of 320 credit points which include the units listed in the recommended sequence below.

Recommended Sequence

Year 1

Autumn session

400346.2	Traditional Chinese Medicine 1
400868.3	Human Anatomy and Physiology 1
400866.3	Culture, Diversity and Health
400871.2	Professional Health Competencies

Spring session

400348.2	Traditional Chinese Medicine 2
400869.3	Human Anatomy and Physiology 2
400732.2	Communication in Health
300816.1	Cell Biology

Year 2

Autumn session

400352.2	Traditional Chinese Medicine 3
400138.3	Pathophysiology 1
400874.2	Channels and Points 1
400876.2	Chinese Materia Medica 1

Spring session

400863.2	Foundations of Research and Evidence-Based Practice
400267.3	Pathophysiology 2
400875.2	Channels and Points 2
400877.2	Chinese Materia Medica 2

Year 3

Autumn session

400864.3	Research Methods (Quantitative and Qualitative)
400878.1	Chinese Medicinal Formulas
400354.2	Traditional Chinese Medicine Practice 1
400873.1	Acupuncture Techniques

Spring session

400981.2	Clinical Pharmacology
400879.1	Clinical Assessment Methods
400865.3	Evidence-Based Practice
400356.2	Traditional Chinese Medicine Practice 2

At this point, students may exit with the Bachelor of Health Science

Year 4

The Year 4 structure will display as soon as available

Bachelor of Health Science (UWSC First Year Program)

7028.3

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year for this course is 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

The Bachelor of Health Science (UWSC First Year Program) is designed to provide students with the first year units included in the Bachelor of Health Science degree and presents students with units covering introductory Science, Communication and Health aspects of the Bachelor of Health Science course. This course aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Health Science degree in the specified key programs of Health Promotion, Health Services Management and Therapeutic Recreation. It is delivered in a smaller, more supportive learning environment than usually found in first year undergraduate programs. Students who successfully complete the Bachelor of Health Science (UWSC First Year Program) will articulate into the B Health Science degree at UWS with up to one year equivalent of advanced standing.

For more information on UWSCollege, please refer to the UWS College web site.

Study Mode

One year full-time (three sessions)

Location

Campus	Attendance	Mode
UWSC - Nirimba Education Precinct	Full Time	Internal

Admission

The aim of the course is to prepare students for tertiary study in Health Science areas of Health Promotion, Health Services Management and Therapeutic Recreation. This course is accredited by the University, as principal, to enable its agent (UWSCollege) to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students are required to have:

- Completed an English unit in the NSW Higher School Certificate, OR
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Health Science), OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

Course Structure

Successful completion of the following units will allow students to enter the second year of the Bachelor of Health Science (with key programs in Health Promotion, Health Services Management, or Therapeutic Recreation) at UWS with 80cp advanced standing.

Qualification for this award requires the successful completion of the units listed below.

700067.1	Professional Health Competencies (UWSC)
700066.1	Population Health and Society (UWSC)
700062.2	Communication in Health (UWSC)
700060.1	Psychology and Health (UWSC)
700061.1	Introduction to Human Biology (UWSC)
700064.1	Foundations of Research and Evidence-Based Practice (UWSC)
700065.2	Approaches to Health Promotion (UWSC)
700075.1	Professional Pathways in Health Science (UWSC)

Students must pass the following preparatory level units for which no advanced standing will be granted in the UWS degree program:

700056.2	Academic English (UWSCFS)
700190.1	Fundamentals of Health Science (UWSCFS)

Students must also pass with a Satisfactory grade the following non-award unit, which does not count for credit towards the Diploma

700170.1	Tertiary Study Skills in Health Science (UWSC)

Bachelor of Health Science Extended (UWSC First Year Program)

7078.1

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

This program is designed to provide students with the first year units included in the Bachelor of Health Science course. It presents students with subjects covering introductory Science, Communication and Health aspects of the Bachelor of Health Science course and aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Health Science degree. The inclusion of additional preparatory units is designed to assist students in the transition to study at University level.

Students who successfully complete the Bachelor of Health Science Extended (UWSC First Year Program) will articulate into the Bachelor of Health Science degree at UWS with up to one year (80 credit points) equivalent of advanced standing.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode

One and a half years full-time (four terms) or three years part-time (eight terms).

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission

Recent School Leavers:

Completion of Year 12 with specified ATAR to be determined year by year.

Non-Credentialed Students:

Australian Citizens and Permanent Residents either aged 18 years or over or completed Year 11 equivalent.

Course Structure

Students are categorised into two Pathways. See individual links below for detailed course structure.

Local Recent School Leaver

A7012.1	UWSCollege Health Science Extended Local Recent School Leaver

Non-credential Applicants

A7014.1	UWSCollege Health Science Extended Non-Credentialed Applicants

Diploma in Health Science

7018.4

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year for this course is 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

For more information on UWSCollege, please refer to the UWSCollege web site

The Diploma in Health Science is designed to provide students with the first year units included in the Bachelor of Health Science course. The Diploma presents students with subjects covering introductory Science, Communication and Health aspects of the Bachelor of Health Science course. Transition to tertiary study is assisted by the inclusion of Foundation level Academic English and Science. The Diploma aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Health Science degree in the specified key programs of Health Promotion, Health Services Management and Therapeutic Recreation. This course, completed in a smaller, more supportive learning environment than usually found in first year undergraduate programs, is designed to develop students to have greater ability in self-directed study and have the self esteem that comes from prior achievement in a tertiary environment

Study Mode

One year full-time (three sessions).

Location

Campus	Attendance	Mode
UWSC - Nirimba Education Precinct	Full Time	Internal

Admission

The aim of the course is to prepare students for tertiary study in Health Science areas of Health Promotion, Health Services Management and Therapeutic Recreation. The Diploma will be accredited by the University, as principal, to enable its agent, UWSCollege, to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students entering this Diploma are required to have:

- Completed an English unit in the NSW Higher School Certificate, OR
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Health Science) OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

English Entry Requirements. International students entering the Diploma must satisfy one of the following language requirements:

- IELTS 6.0 with a minimum 5.5 in each sub band OR
- Completed the UWSCollege EAP III course with a 50% pass OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Academic Entry Requirements vary according to country of origin. However, in general:

- Completion of Year 12 or its equivalent is the minimum entry requirement OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

Course Structure

Successful completion of the following units will allow students to enter the second year of the Bachelor of Health Science (with key programs in Health Promotion, Health Services Management, or Therapeutic Recreation) at UWS with 80cp advanced standing.

Qualification for this award requires the successful completion of the units listed below.

700067.1 Professional Health Competencies (UWSC)
700066.1 Population Health and Society (UWSC)
700062.2 Communication in Health (UWSC)
700060.1 Psychology and Health (UWSC)
700061.1 Introduction to Human Biology (UWSC)
700064.1 Foundations of Research and Evidence-Based Practice (UWSC)
700065.2 Approaches to Health Promotion (UWSC)
700075.1 Professional Pathways in Health Science (UWSC)

Students must pass the following preparatory level units for which no advanced standing will be granted in the UWS degree program:

700056.2 Academic English (UWSCFS)
700190.1 Fundamentals of Health Science (UWSCFS)

Students must also pass the following non-award unit. This unit does not count for credit towards the Diploma.

700170.1 Tertiary Study Skills in Health Science (UWSC)

Diploma in Health Science Fast Track

7019.3

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year for this course is 2014 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

The Diploma in Health Science Fast Track is designed to provide students with the first year units included in the Bachelor of Health Science course. The Diploma presents students with subjects covering introductory Science, Communication and Health aspects of the Bachelor of Health Science course. The Diploma aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Health Science degree in the specified key programs of Health Promotion, Health

Services Management and Therapeutic Recreation. This course, completed in a smaller, more supportive learning environment than usually found in first year undergraduate programs, is designed to develop students to have greater ability in self-directed study and have the self esteem that comes from prior achievement in a tertiary environment.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode
Eight months full-time (two sessions)

Location

Campus	Attendance	Mode
UWSC - Nirimba Education Precinct	Full Time	Internal

Admission
The aim of the course is to prepare students for tertiary study in Health Science areas of Health Promotion, Health Services Management and Therapeutic Recreation. The Diploma will be accredited by the University, as principal, to enable its agent, UWSCollege, to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students entering this Diploma are required to have:

- Completed an English unit in the NSW Higher School Certificate, OR
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Health Science) OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 6.0 or higher.

English Entry Requirements. International students entering the Diploma must satisfy one of the following language requirements:

- IELTS 6.0 with a minimum 5.5 in each sub band OR
- Completed the UWSCollege EAP 4 course with a 50% pass OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher.

Academic Entry Requirements vary according to country of origin. However, in general:

- Completion of Year 12 or its equivalent is the minimum entry requirement OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 6.0 or higher.

Course Structure
Successful completion of the units listed below will allow students to enter the second year of the Bachelor of Health Science (with key programs in Health Promotion, Health Services Management, or Therapeutic Recreation) at UWS with 80cp advanced standing.

Qualification for this award requires the successful completion of the units listed below.

700067.1	Professional Health Competencies (UWSC)
700066.1	Population Health and Society (UWSC)
700062.2	Communication in Health (UWSC)
700060.1	Psychology and Health (UWSC)
700061.1	Introduction to Human Biology (UWSC)
700064.1	Foundations of Research and Evidence-Based Practice (UWSC)
700065.2	Approaches to Health Promotion (UWSC)
700075.1	Professional Pathways in Health Science (UWSC)

Students must also pass the following non-award unit. This unit does not count for credit towards the Diploma.

700170.1	Tertiary Study Skills in Health Science (UWSC)

Diploma in Health Science Extended

7068.1

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

This program is designed to provide students with the first year units included in the Bachelor of Health Science course. It presents students with subjects covering introductory Science, Communication and Health aspects of the Bachelor of Health Science course and aims to produce students who are fully prepared for study beyond the first year of the B Health Science degree. The inclusion of additional preparatory units is designed to assist students in the transition to study at University level.

Students who successfully complete the Diploma in Health Science Extended will articulate into the Bachelor of Health Science degree at UWS with up to one year (80 credit points) equivalent of advanced standing.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode
One and a half years full-time (four terms) or three years part-time (eight terms).

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission
Recent School Leavers:

Completion of Year 12 with specified ATAR to be determined year by year.

International Students:

IELTS 6.0 with minimum 5.0 in each sub band; or equivalent results from UWSC English Language Program or UWSC English Entrance Test; and completion of year 11 or equivalent with specified results.

Non-Credentialed Students:

Australian Citizens and Permanent Residents either aged 18 years or over or completed Year 11 equivalent.

Course Structure

Students are categorised into three Pathways. See individual links below for detailed course structure.

Local Recent School Leaver

A7012.1 UWSCollege Health Science Extended Local Recent School Leaver

International Students

A7013.1 UWSCollege Health Science Extended International Students

Non-credentialed Applicants

A7014.1 UWSCollege Health Science Extended Non-Credentialed Applicants

Bachelor of Health Science (PDHPE) (UWSC First Year Program)

7029.3

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year for this course is 2015 or later.

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

The Bachelor of Health Science (PDHPE) (UWSC First Year Program) is designed to provide students with the first year units included in the Bachelor of Health Science (PDHPE) degree and presents students with units covering introductory Science, Communication and Health aspects of the Bachelor of Health Science (PDHPE) course. This course aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Health Science degree in the specified key programs of Personal Development, Health and Physical Education. It is delivered in a smaller, more supportive learning environment than usually found in first year undergraduate programs. Students who successfully complete the Bachelor of Health Science (PDHPE) (UWSC First Year Program) will articulate into the B Health Science (PDHPE) degree at UWS with up to one year equivalent of advanced standing.

For more information on UWSCollege, please refer to the UWS College web site.

Study Mode

One year full-time (three sessions)

Location

Campus	Attendance	Mode
UWSC - Nirimba Education Precinct	Full Time	Internal

Admission

The aim of the course is to prepare students for tertiary study in Health Science areas of PDHPE. This course is accredited by the University, as principal, to enable its agent (UWSCollege) to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students are required to have:

- Completed an English unit in the NSW Higher School Certificate, OR
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Health Science), OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

Course Structure

Successful completion of the following units will allow students to enter the second year of the Bachelor of Health Science (PDHPE) course at UWS with 80cp advanced standing.

Qualification for this award requires the successful completion of the units listed below.

700067.1 Professional Health Competencies (UWSC)
700066.1 Population Health and Society (UWSC)
700062.2 Communication in Health (UWSC)
700060.1 Psychology and Health (UWSC)
700061.1 Introduction to Human Biology (UWSC)
700064.1 Foundations of Research and Evidence-Based Practice (UWSC)
700065.2 Approaches to Health Promotion (UWSC)
700073.1 Fundamentals of Exercise Science (UWSC)

Students must pass the following preparatory level units for which no advanced standing will be granted in the UWS degree program:

700056.2 Academic English (UWSCFS)
700190.1 Fundamentals of Health Science (UWSCFS)

Students must also pass the following non-award unit, which does not count for credit towards the Diploma

700170.1 Tertiary Study Skills in Health Science (UWSC)

Bachelor of Health Science (PDHPEP) Extended (UWSC First Year Program)

7079.1

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

This program is designed to provide students with the first year units included in the Bachelor of Health Science (PDHPE) course. It presents students with subjects covering introductory Science, Communication and Health aspects of the Bachelor of Health Science course and aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Health Science degree. The inclusion of additional preparatory units is designed to assist students in the transition to study at University level.

Students who successfully complete the Bachelor of Health Science (PDHPE) Extended (UWSC First Year Program) will articulate into the Bachelor of Health Science (PDHPE) degree at UWS with up to one year (80 Credit Points) equivalent of advanced standing.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode

One and a half years full-time (four terms) or three years part-time (eight terms).

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission

Recent School Leavers:

Completion of Year 12 with specified ATAR to be determined year by year.

Non-Credentialed Students:

Australian Citizens and Permanent Residents either aged 18 years or over or completed Year 11 equivalent.

Course Structure

Students are categorised into two Pathways. See individual links below for detailed course structure.

Local Recent School Leaver

A7015.1	UWSCollege Health Science (PDHPEP) Extended Local Recent School Leavers

Non-credential Applicants

A7017.1	UWSCollege Health Science (PDHPEP) Extended Non-Credentialed Applicants

Diploma in Health Science (Personal Development, Health and Physical Education Pathway)

7017.4

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year for this course is 2015 or later

Units may be revised or replaced to ensure students are provided with up to date curriculum throughout their studies, and this may result in a new course version. Refer to the Check My Course Progress page in MySR for the most up to date information for your course.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

This program is designed to provide students with the first year units included in the Bachelor of Health Science (PDHPE) course. It presents students with subjects covering introductory Science, Communication and Health aspects of the Bachelor of Health Science course and aims to produce students who are fully prepared for study beyond the first year of the B Health Science degree. It is delivered in a smaller, more supportive learning environment than usually found in first year undergraduate programs. Students who successfully complete the Diploma in Health Science (PDHPE) will articulate into the Bachelor of Health Science (PDHPE) degree at UWS with up to one year (80 CPs) equivalent of advanced standing.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode

One year full-time (three sessions)

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal

Campus	Attendance	Mode
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission

The aim of the course is to prepare students for tertiary study in Arts. The Diploma is accredited by the University, as principal, to enable its agent, UWSCollege, to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students entering this Diploma are required to have:

- Completed an English unit in the NSW Higher School Certificate, OR
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Health Science), OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

International students entering the Diploma must satisfy one of the following language requirements:

- IELTS 6.0 with a minimum 5.5 in each sub band OR
- Completed the UWSCollege EAP 4 course with a 50% pass OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Academic Entry Requirements vary according to country of origin. However, in general:

- Completion of Year 12 or its equivalent is the minimum entry requirement OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

Course Structure

Successful completion of the following units will allow students to enter the second year of the Bachelor of Health Science (PDHPE) course at UWS with 80cp advanced standing.

Qualification for this award requires the successful completion of the units listed below.

700067.1	Professional Health Competencies (UWSC)
700066.1	Population Health and Society (UWSC)
700062.2	Communication in Health (UWSC)
700060.1	Psychology and Health (UWSC)
700061.1	Introduction to Human Biology (UWSC)
700064.1	Foundations of Research and Evidence-Based Practice (UWSC)
700065.2	Approaches to Health Promotion (UWSC)
700073.1	Fundamentals of Exercise Science (UWSC)

Students must pass the following preparatory level units for which no advanced standing will be granted in the UWS degree program:

700056.2	Academic English (UWSCFS)
700190.1	Fundamentals of Health Science (UWSCFS)

Students must also pass the following non-award unit. This unit does not count for credit towards the Diploma.

700170.1	Tertiary Study Skills in Health Science (UWSC)

Diploma in Health Science (Personal Development, Health and Physical Education Pathway) Extended

7069.1

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

This program is designed to provide students with the first year units included in the Bachelor of Health Science (PDHPE) course. It presents students with subjects covering introductory Science, Communication and Health aspects of the Bachelor of Health Science course and aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Health Science degree. The inclusion of additional preparatory units is designed to assist students in the transition to study at University level.

Students who successfully complete the Diploma in Health Science (PDHPE) will articulate into the Bachelor of Health Science (PDHPE) degree at UWS with up to one year (80 credit points) equivalent of advanced standing.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode

One and a half years full-time (four terms) or three years part-time (eight terms).

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission

Recent School Leavers:

Completion of Year 12 with specified ATAR to be determined year by year.

International Students:

IELTS 6.0 with minimum 5.0 in each sub band; or equivalent results from UWSC English Language Program or UWSC English Entrance Test; and completion of year 11 or equivalent with specified results.

Non-Credentialed Students:

Australian Citizens and Permanent Residents either aged 18 years or over or completed Year 11 equivalent.

Course Structure

Students are categorised into three Pathways. See individual links below for detailed course structure.

Local Recent School Leaver

A7015.1	UWSCollege Health Science (PDHPEP) Extended Local Recent School Leavers

International Students

A7016.1	UWSCollege Health Science (PDHPEP) Extended International Students

Non-credential Applicants

A7017.1	UWSCollege Health Science (PDHPEP) Extended Non-Credentialed Applicants

Bachelor of Science (UWSC First Year Program)

7025.2

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2014 or later.

This course is designed to engage students in, and further prepare students for, tertiary study in science. It presents students with first year level B Science units and aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Science degree. It is delivered in a smaller, more supportive learning environment than usually found in first year undergraduate programs. Students who successfully complete the Bachelor of Science (UWSC First Year Program) will articulate into Bachelor of Science or Bachelor of Medical Science or Bachelor of Natural Science at UWS with up to one year equivalent of advanced standing.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode

One year full-time (three sessions)

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission

The aim of the course is to prepare students for tertiary study in Science. This course is accredited by the University, as principal, to enable its agent, UWSCollege, to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students entering this course are required to have:

- Completed an English unit in the NSW Higher School Certificate, Or
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) Or
- Passed the UWSCollege English test at IELTS 6.0 equivalent Or
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Students are also assumed to have completed some study in Mathematics and Science at senior high school level or its equivalent.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Science) Or
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

Special Requirements

All students must complete Tertiary Study Skills with UWSCollege prior to completion of the program.

Course Structure

Students must pass the following units

700095.1	Biodiversity (UWSC)
700125.1	Cell Biology (UWSC)
700122.1	Essential Chemistry 2 (UWSC)
700124.1	Scientific Literacy (UWSC)
700123.1	Quantitative Thinking (UWSC)

Students must pass one of the following two units

700121.2	Essential Chemistry 1 (UWSC)
700155.1	Introductory Chemistry (UWSC)

Students must pass two of the following four units (dependent upon which UWS degree they wish to enter upon successful completion of their studies ie Bachelor of Science, Bachelor of Natural Science or Bachelor of Medical Science)

700099.1	Resource Sustainability (UWSC)
700096.2	Integrated Science (UWSC)
700097.1	Introduction to Anatomy (UWSC)
700098.1	Introduction to Physiology (UWSC)

Students must complete the following two Foundation level units for which no advanced standing will be granted in the UWS degree program

700043.2 Chemistry (UWSCFS)
700146.2 Mathematics 2 (UWSCFS)

Students must also pass the following non-award unit, which does not count for credit towards the Diploma

700173.1 Tertiary Study Skills in Science (UWSC)

Bachelor of Science Extended (UWSC First Year Program)

7080.1

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2015 or later.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

This course is designed to engage students in, and further prepare students for, tertiary study in science. It presents students with first year level Bachelor of Science units and aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Science degree.

Students who successfully complete the Bachelor of Science Extended (UWSC First Year Program) will articulate into Bachelor of Science or Bachelor of Medical Science or Bachelor of Natural Science at UWS with up to one year equivalent of advanced standing (80 Credit Points). The inclusion of additional preparatory units is designed to assist students in the transition to study at University level.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode
One and a half years full-time (four terms) or three years part-time (eight terms).

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission
Recent School Leavers:

Completion of Year 12 with specified ATAR to be determined year by year.

Non-Credentialed Students:

Australian Citizens and Permanent Residents either aged 18 years or over or completed Year 11 equivalent.

Course Structure
Students are categorised into two Pathways. See individual links below for detailed course structure.

Local Recent School Leaver

A7009.1 UWSCollege Science Extended Local Recent School Leavers

Non-Credentialed Applicants

A7011.1 UWSCollege Science Extended Non-Credentialed Applicants

Diploma in Science

7003.5

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2014 or later.

This course is delivered by UWSCollege as an agent of the University of Western Sydney.

This course is designed to engage students in, and further prepare students for, tertiary study in science. It presents students with first year level Bachelor of Science units and aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Science degree. It is delivered in a smaller, more supportive learning environment than usually found in first year undergraduate programs. Students who successfully complete the Diploma in Science will articulate into the Bachelor of Science or Bachelor of Medical Science or Bachelor of Natural Science at UWS with up to one year equivalent of advanced standing.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode
One year full-time (three sessions)

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission
The aim of the course is to prepare students for tertiary study in Science. The Diploma is accredited by the University, as principal, to enable its agent, UWSCollege, to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students entering this Diploma are required to have:

- Completed an English unit in the NSW Higher School Certificate, OR
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Students are also assumed to have completed some study in Mathematics and Science at senior high school level or its equivalent.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Science) OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher.

International students entering the Diploma must satisfy one of the following language requirements:

- IELTS 6.0 with a minimum 5.5 in each sub band OR
- Completed the UWSCollege EAP 4 course with a 50% pass OR
- Passed the UWSCollege English test at IELTS 6.0 equivalent OR
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher for which advanced standing can be applied for.

Students are also assumed to have completed some study in Mathematics and Science at senior high school level or its equivalent.

Academic Entry Requirements vary according to country of origin. However, in general:

- Completion of Year 12 or its equivalent is the minimum entry requirement OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 5.5 or higher

Special Requirements

All students must complete Tertiary Study Skills with UWSCollege prior to completion of the Diploma.

Course Structure

Students must pass the following units

700095.1 Biodiversity (UWSC)
700125.1 Cell Biology (UWSC)
700122.1 Essential Chemistry 2 (UWSC)
700124.1 Scientific Literacy (UWSC)
700123.1 Quantitative Thinking (UWSC)

Students must PASS one of the following two units:

700121.2 Essential Chemistry 1 (UWSC)
700155.1 Introductory Chemistry (UWSC)

Students must pass two of the following four units (dependent upon which UWS degree they wish to enter upon successful completion of their studies ie Bachelor of Science, Bachelor of Natural Science or Bachelor of Medical Science)

700099.1 Resource Sustainability (UWSC)
700096.2 Integrated Science (UWSC)
700097.1 Introduction to Anatomy (UWSC)
700098.1 Introduction to Physiology (UWSC)

Students must complete the following two Foundation level units for which no advanced standing will be granted in the UWS degree program

700043.2 Chemistry (UWSCFS)
700146.2 Mathematics 2 (UWSCFS)

Students must also pass with a Satisfactory grade the following non-award unit

700173.1 Tertiary Study Skills in Science (UWSC)

Diploma in Science Fast Track

7009.4

Students should follow the course structure for the course version relevant to the year they commenced. This version applies to students whose commencement year in this course is 2014 or later.

This course is designed to engage students in, and further prepare students for, tertiary study in science. It presents students with first year level Bachelor of Science units and aims to produce students who are fully prepared for study beyond the first year of the B Science degree. It is delivered in a smaller, more supportive learning environment than usually found in first year undergraduate programs. Students who successfully complete the Diploma in Science Fast Track will articulate into Bachelor of Science or Bachelor of Medical Science or Bachelor of Natural Science at UWS with up to one year equivalent of advanced standing.

For more information on UWSCollege, please refer to the UWSCollege web site.

Study Mode

Eight months full-time (two sessions)

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Lithgow site	Full Time	Internal
Lithgow site	Part Time	Internal
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission

The aim of the course is to prepare students for tertiary study in Science. The Diploma is accredited by the University, as principal, to enable its agent, UWSCollege, to produce students who are fully prepared for study beyond the first year of a tertiary award.

Local students entering this Diploma are required to have:

- Completed an English unit in the NSW Higher School Certificate, Or
- Competency in English at IELTS 6.0 equivalent (unless a native speaker) Or

- Passed the UWSCollege English test at IELTS 6.0 equivalent Or
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher.

Students are also assumed to have completed some study in Mathematics and Science at senior high school level or its equivalent.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place (the ATAR will be set each year at a level below that for admission for the Bachelor of Science) OR
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 6.0 or higher.

International students entering the Diploma must satisfy one of the following language requirements:

- IELTS 6.0 with a minimum 5.5 in each sub band OR
- Completed the UWSCollege EAP 4 course with a 50% pass Or
- Passed the UWSCollege English test at IELTS 6.0 equivalent Or
- Passed the UWSCollege Foundation Studies Academic English unit at C grade level or higher.

Students are also assumed to have completed some study in Mathematics and Science at senior high school level or its equivalent.

Academic Entry Requirements vary according to country of origin. However, in general:

- Completion of Year 12 or its equivalent is the minimum entry requirement Or
- Completed the UWSCollege Foundation Studies course with a Grade Point Average of 6.0 or higher.

Special Requirements

All students must complete Tertiary Study Skills with UWSCollege prior to completion of the diploma.

Course Structure

Students must pass the following units

700095.1 Biodiversity (UWSC)
700125.1 Cell Biology (UWSC)
700122.1 Essential Chemistry 2 (UWSC)
700124.1 Scientific Literacy (UWSC)
700123.1 Quantitative Thinking (UWSC)

Students must also pass one of the following two units

700121.2 Essential Chemistry 1 (UWSC)
700155.1 Introductory Chemistry (UWSC)

Students must pass two of the following four units (dependent upon which UWS degree they wish to enter upon successful completion of their studies ie Bachelor of Science, Bachelor of Natural Science or Bachelor of Medical Science)

700099.1 Resource Sustainability (UWSC)
700096.2 Integrated Science (UWSC)
700097.1 Introduction to Anatomy (UWSC)
700098.1 Introduction to Physiology (UWSC)

Students must also pass the following non-award unit. This unit does not count as credit towards the Diploma.

700173.1 Tertiary Study Skills in Science (UWSC)

Diploma in Science Extended

7070.1

This course is designed to engage students in, and further prepare students for, tertiary study in science. It presents students with first year level Bachelor of Science units and aims to produce students who are fully prepared for study beyond the first year of the Bachelor of Science degree. Students who successfully complete the Diploma in Science will articulate into Bachelor of Science or Bachelor of Medical Science or Bachelor of Natural Science at UWS with up to one year equivalent of advanced standing (80 Credit Points). The inclusion of additional preparatory units is designed to assist students in the transition to study at University level.

Study Mode

One and a half years full-time (4 terms) or three years part-time (8 terms).

Location

Campus	Attendance	Mode
UWSC - Nirimba Education Precinct	Full Time	Internal
UWSC - Nirimba Education Precinct	Part Time	Internal

Admission

Recent School Leavers:

Completion of Year 12 with specified ATAR to be determined year by year.

International Students:

IELTS 5.5 with minimum 5.0 in each sub band; or equivalent results from UWSC English Language Program or UWSC English Entrance Test; and completion of year 11 or equivalent with specified results.

Non-Credentialed Students:

Australian Citizens and Permanent Residents either aged 18 years or over or completed Year 11 equivalent.

Course Structure

Students are categorised into three Pathways. See individual links below for detailed course structure.

Local Recent School Leaver

A7009.1 UWSCollege Science Extended Local Recent School Leavers

International Students

A7010.1 UWSCollege Science Extended International Students

Non-credentialed Applicants

A7011.1 UWSCollege Science Extended Non-Credentialed Applicants

Specialisations

UWSCollege Admission Pathway - UWSCollege Science Extended Local Recent School Leavers

A7009.1

Location

Campus	Mode
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7070 Diploma in Science Extended or 7080 Bachelor of Science Extended (UWSC First Year Program) to complete this specialisation.

Local Recent School Leaver

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700198.1 Academic Communication 1 (UWSCFS)
700230.1 Academic Skills for Science (UWSCFS)
700231.1 Fundamentals of Science (UWSCFS)
700232.1 Focus on Biology (UWSCFS)

Students must attempt/complete the following preparatory units for which no advanced standing will be granted in the UWS degree program

700146.2 Mathematics 2 (UWSCFS)
700043.2 Chemistry (UWSCFS)

Students must pass the following University level units

700095.1 Biodiversity (UWSC)
700125.1 Cell Biology (UWSC)
700122.1 Essential Chemistry 2 (UWSC)
700124.1 Scientific Literacy (UWSC)
700123.1 Quantitative Thinking (UWSC)

Students must pass one of the following two University level units

700121.2 Essential Chemistry 1 (UWSC)
700155.1 Introductory Chemistry (UWSC)

Students must pass two of the following four University level units (dependent upon which UWS degree they wish to enter upon successful completion of their studies i.e. Bachelor of Science, Bachelor of Natural Science or Bachelor of Medical Science)

700099.1 Resource Sustainability (UWSC)
700096.2 Integrated Science (UWSC)
700097.1 Introduction to Anatomy (UWSC)
700098.1 Introduction to Physiology (UWSC)

Students must pass the following preparatory units prior to enrolling in the University level units

700198.1 Academic Communication 1 (UWSCFS)
700230.1 Academic Skills for Science (UWSCFS)
700231.1 Fundamentals of Science (UWSCFS)
700232.1 Focus on Biology (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Science Extended International Students

A7010.1

Location

Campus	Mode
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7070 Diploma in Science Extended or 7080 Bachelor of Science Extended (UWSC First Year Program) to complete this specialisation.

International Students

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700207.1 English for Tertiary Study 1 (UWSCFS)
700230.1 Academic Skills for Science (UWSCFS)
700231.1 Fundamentals of Science (UWSCFS)
700232.1 Focus on Biology (UWSCFS)

Students must attempt/complete the following preparatory units for which no advanced standing will be granted in the UWS degree program

700146.2 Mathematics 2 (UWSCFS)
700043.2 Chemistry (UWSCFS)

Students must pass the following University level units

700095.1 Biodiversity (UWSC)
700125.1 Cell Biology (UWSC)
700122.1 Essential Chemistry 2 (UWSC)
700124.1 Scientific Literacy (UWSC)
700123.1 Quantitative Thinking (UWSC)

Students must pass one of the following two University level units

700121.2 Essential Chemistry 1 (UWSC)
700155.1 Introductory Chemistry (UWSC)

Students must pass two of the following four University level units (dependent upon which UWS degree they wish to enter upon successful completion of their studies i.e. Bachelor of Science, Bachelor of Natural Science or Bachelor of Medical Science)

700099.1 Resource Sustainability (UWSC)

700096.2 Integrated Science (UWSC)
700097.1 Introduction to Anatomy (UWSC)
700098.1 Introduction to Physiology (UWSC)

Students must pass the following preparatory units prior to enrolling in the University level units

700207.1 English for Tertiary Study 1 (UWSCFS)
700230.1 Academic Skills for Science (UWSCFS)
700231.1 Fundamentals of Science (UWSCFS)
700232.1 Focus on Biology (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Science Extended Non-Credentialed Applicants

A7011.1

Location

Campus	Mode
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7070 Diploma in Science Extended or 7080 Bachelor of Science Extended (UWSC First Year Program) to complete this specialisation.

Non-credentialed Applicants

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700209.1 Introduction to Academic Communication 1 (UWSCFS)
700230.1 Academic Skills for Science (UWSCFS)
700231.1 Fundamentals of Science (UWSCFS)
700232.1 Focus on Biology (UWSCFS)

Students must attempt/complete the following preparatory units for which no advanced standing will be granted in the UWS degree program

700146.2 Mathematics 2 (UWSCFS)
700043.2 Chemistry (UWSCFS)

Students must pass the following University level units

700095.1 Biodiversity (UWSC)
700125.1 Cell Biology (UWSC)
700122.1 Essential Chemistry 2 (UWSC)
700124.1 Scientific Literacy (UWSC)
700123.1 Quantitative Thinking (UWSC)

Students must pass one of the following two University level units

700121.2 Essential Chemistry 1 (UWSC)
700155.1 Introductory Chemistry (UWSC)

Students must pass two of the following four University level units (dependent upon which UWS degree they wish to enter upon successful completion of their studies i.e. Bachelor of Science, Bachelor of Natural Science or Bachelor of Medical Science)

700099.1 Resource Sustainability (UWSC)
700096.2 Integrated Science (UWSC)
700097.1 Introduction to Anatomy (UWSC)
700098.1 Introduction to Physiology (UWSC)

Students must pass the following preparatory units prior to enrolling in the University level units

700209.1 Introduction to Academic Communication 1 (UWSCFS)
700230.1 Academic Skills for Science (UWSCFS)
700231.1 Fundamentals of Science (UWSCFS)
700232.1 Focus on Biology (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Health Science Extended Local Recent School Leaver

A7012.1

Location

Campus	Mode
Lithgow site	Internal
Penrith Campus	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7068 Diploma in Health Science Extended or 7078 Bachelor of Health Science Extended (UWSC First Year Program) to complete this specialisation.

Local Recent School Leaver

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700198.1 Academic Communication 1 (UWSCFS)
700225.1 Academic Skills for Health Science (UWSCFS)
700226.1 Health Care Environments (UWSCFS)
700227.1 Literacy in Health Science (UWSCFS)
700199.1 Academic Communication 2 (UWSCFS)
700190.1 Fundamentals of Health Science (UWSCFS)

Students must pass the following University level units, which will allow students to enter the second year of the Bachelor of Health Science course at UWS with 80 credit points advanced standing.

700067.1 Professional Health Competencies (UWSC)
700066.1 Population Health and Society (UWSC)
700062.2 Communication in Health (UWSC)
700060.1 Psychology and Health (UWSC)

700061.1 Introduction to Human Biology (UWSC)
700064.1 Foundations of Research and Evidence-Based Practice (UWSC)
700065.2 Approaches to Health Promotion (UWSC)
700075.1 Professional Pathways in Health Science (UWSC)

Students must pass the following preparatory units prior to enrolling in the University level units

700198.1 Academic Communication 1 (UWSCFS)
700225.1 Academic Skills for Health Science (UWSCFS)
700226.1 Health Care Environments (UWSCFS)
700227.1 Literacy in Health Science (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Health Science Extended International Students

A7013.1

Location

Campus	Mode
Lithgow site	Internal
Penrith Campus	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7068 Diploma in Health Science Extended or 7078 Bachelor of Health Science Extended (UWSC First Year Program) to complete this specialisation.

International Students

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700207.1 English for Tertiary Study 1 (UWSCFS)
700225.1 Academic Skills for Health Science (UWSCFS)
700226.1 Health Care Environments (UWSCFS)
700208.1 English for Tertiary Study 2 (UWSCFS)
700190.1 Fundamentals of Health Science (UWSCFS)

Students must pass the following University level units, which will allow students to enter the second year of the Bachelor of Health Science course at UWS with 80 credit points advanced standing.

700067.1 Professional Health Competencies (UWSC)
700066.1 Population Health and Society (UWSC)
700062.2 Communication in Health (UWSC)
700060.1 Psychology and Health (UWSC)
700061.1 Introduction to Human Biology (UWSC)
700064.1 Foundations of Research and Evidence-Based Practice (UWSC)
700065.2 Approaches to Health Promotion (UWSC)
700075.1 Professional Pathways in Health Science (UWSC)

Students must pass the following preparatory units prior to enrolling in the University level units

700207.1 English for Tertiary Study 1 (UWSCFS)
700225.1 Academic Skills for Health Science (UWSCFS)
700226.1 Health Care Environments (UWSCFS)
700227.1 Literacy in Health Science (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Health Science Extended Non-Credentialed Applicants

A7014.1

Location

Campus	Mode
Lithgow site	Internal
Penrith Campus	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7068 Diploma in Health Science Extended OR 7078 Bachelor of Health Science Extended (UWSC First Year Program) to complete this specialisation.

Non-credential Applicants

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700209.1 Introduction to Academic Communication 1 (UWSCFS)
700225.1 Academic Skills for Health Science (UWSCFS)
700226.1 Health Care Environments (UWSCFS)
700227.1 Literacy in Health Science (UWSCFS)
700210.1 Introduction to Academic Communication 2 (UWSCFS)
700190.1 Fundamentals of Health Science (UWSCFS)

Students must pass the following University level units, which will allow students to enter the second year of the Bachelor of Health Science course at UWS with 80 credit points advanced standing.

700067.1 Professional Health Competencies (UWSC)
700066.1 Population Health and Society (UWSC)
700062.2 Communication in Health (UWSC)
700060.1 Psychology and Health (UWSC)
700061.1 Introduction to Human Biology (UWSC)
700064.1 Foundations of Research and Evidence-Based Practice (UWSC)
700065.2 Approaches to Health Promotion (UWSC)
700075.1 Professional Pathways in Health Science (UWSC)

Students must pass the followingpreparatory units prior to enrolling in the University level units

700209.1	Introduction to Academic Communication 1 (UWSCFS)
700225.1	Academic Skills for Health Science (UWSCFS)
700226.1	Health Care Environments (UWSCFS)
700227.1	Literacy in Health Science (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Health Science (PDHPEP) Extended Local Recent School Leavers

A7015.1

Location

Campus	Mode
Lithgow site	Internal
Penrith Campus	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Local Recent School Leaver

Students must be enrolled in 7069 Diploma in Health Science (Personal Development, Health and Physical Education Pathway) Extended or 7079 Bachelor of Health Science (PDHPEP) Extended (UWSC First Year Program) to complete this specialisation.

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700198.1	Academic Communication 1 (UWSCFS)
700225.1	Academic Skills for Health Science (UWSCFS)
700226.1	Health Care Environments (UWSCFS)
700227.1	Literacy in Health Science (UWSCFS)
700199.1	Academic Communication 2 (UWSCFS)
700190.1	Fundamentals of Health Science (UWSCFS)

Students must pass the following University level units, which will allow students to enter the second year of the Bachelor of Health Science (PDHPE) course at UWS with 80 credit points advanced standing.

700067.1	Professional Health Competencies (UWSC)
700066.1	Population Health and Society (UWSC)
700062.2	Communication in Health (UWSC)
700060.1	Psychology and Health (UWSC)
700061.1	Introduction to Human Biology (UWSC)
700064.1	Foundations of Research and Evidence-Based Practice (UWSC)
700065.2	Approaches to Health Promotion (UWSC)
700073.1	Fundamentals of Exercise Science (UWSC)

Students must pass the following preparatory units prior to enrolling in the University level units

700198.1	Academic Communication 1 (UWSCFS)
700225.1	Academic Skills for Health Science (UWSCFS)
700226.1	Health Care Environments (UWSCFS)
700227.1	Literacy in Health Science (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Health Science (PDHPEP) Extended International Students

A7016.1

Location

Campus	Mode
Lithgow site	Internal
Penrith Campus	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7069 Diploma in Health Science (Personal Development, Health and Physical Education Pathway) Extended or 7079 Bachelor of Health Science (PDHPEP) Extended (UWSC First Year Program) to complete this specialisation.

International Students

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700207.1	English for Tertiary Study 1 (UWSCFS)
700225.1	Academic Skills for Health Science (UWSCFS)
700226.1	Health Care Environments (UWSCFS)
700227.1	Literacy in Health Science (UWSCFS)
700208.1	English for Tertiary Study 2 (UWSCFS)
700190.1	Fundamentals of Health Science (UWSCFS)

Students must pass the following University level units, which will allow students to enter the second year of the Bachelor of Health Science (PDHPE) course at UWS with 80 credit points advanced standing.

700067.1	Professional Health Competencies (UWSC)
700066.1	Population Health and Society (UWSC)
700062.2	Communication in Health (UWSC)
700060.1	Psychology and Health (UWSC)
700061.1	Introduction to Human Biology (UWSC)
700064.1	Foundations of Research and Evidence-Based Practice (UWSC)
700065.2	Approaches to Health Promotion (UWSC)
700073.1	Fundamentals of Exercise Science (UWSC)

Students must pass the following preparatory units prior to enrolling in the University level units

700207.1	English for Tertiary Study 1 (UWSCFS)
700225.1	Academic Skills for Health Science (UWSCFS)
700226.1	Health Care Environments (UWSCFS)
700227.1	Literacy in Health Science (UWSCFS)

UWSCollege Admission Pathway - UWSCollege Health Science (PDHPEP) Extended Non-Credentialed Applicants

A7017.1

Location

Campus	Mode
Lithgow site	Internal
Penrith Campus	Internal
UWSC - Nirimba Education Precinct	Internal

Specialisation Structure

Students must be enrolled in 7069 Diploma in Health Science (Personal Development, Health and Physical Education Pathway) Extended or 7079 Bachelor of Health Science (PDHPEP) Extended (UWSC First Year Program) to complete this specialisation.

Non-credential Applicants

Students must pass the following preparatory units for which no advanced standing will be granted in the UWS degree program

700209.1	Introduction to Academic Communication 1 (UWSCFS)
700225.1	Academic Skills for Health Science (UWSCFS)
700226.1	Health Care Environments (UWSCFS)
700227.1	Literacy in Health Science (UWSCFS)
700210.1	Introduction to Academic Communication 2 (UWSCFS)
700190.1	Fundamentals of Health Science (UWSCFS)

Students must pass the following University level units, which will allow students to enter the second year of the Bachelor of Health Science (PDHPE) course at UWS with 80 credit points advanced standing.

700067.1	Professional Health Competencies (UWSC)
700066.1	Population Health and Society (UWSC)
700062.2	Communication in Health (UWSC)
700060.1	Psychology and Health (UWSC)
700061.1	Introduction to Human Biology (UWSC)
700064.1	Foundations of Research and Evidence-Based Practice (UWSC)
700065.2	Approaches to Health Promotion (UWSC)
700073.1	Fundamentals of Exercise Science (UWSC)

Students must pass the following preparatory units prior to enrolling in the University level units

700209.1	Introduction to Academic Communication 1 (UWSCFS)
700225.1	Academic Skills for Health Science (UWSCFS)
700226.1	Health Care Environments (UWSCFS)
700227.1	Literacy in Health Science (UWSCFS)

Key Program - General Program

KP3026.1

Specialisation Structure

Students completing the Bachelor of Science (Advanced Science) General will complete the following course structure.

Qualifying for this award requires successful completion of 240 credit points within the following rules.

Level 1

Six level 1 science core units must be completed by including the following

- at least one mathematics or statistics unit
- one academic skills unit
- at least four other science foundation units from the unit set structure below, which must come from a further two science disciplines out of the following: Biology, Chemistry, Computer Science or Physics

Levels 2 and 3

- at least thirteen more science units must be selected from the unit set structure below; three of these must be Advanced Science Project units
- at least one Major specialisation must be completed
- at least 60 credit points must be taken at level 3, of which at least 40 credit points must be for science units taken from the unit set structure below
- 300924 Science Research Project must be completed as the capstone unit

Students must complete at least one of the following majors:

- Hawkesbury: Marine Biology, Biochemistry and Molecular Biology, Climate Change, Conservation Biology, Environmental Consulting, Forensic Science, Microbiology, General Biology, Nutrition and Physiology, Zoology. Please note: the Mathematics major cannot be completed on Hawkesbury campus.
- Parramatta: Biochemistry and Molecular Biology, Chemistry, General Biology, Mathematics
- Campbelltown: Biochemistry and Molecular Biology, Chemistry, General Biology, Mathematics

Hawkesbury Campus

Year 1

Autumn session

Non-mathematics majors: choose at least one appropriate mathematics or statistics unit in your first year: Students

cannot do a mathematics major on the Hawkesbury campus.

300811.1 Scientific Literacy

Choose three of

300800.2 Essential Chemistry 1

Or

300808.2 Introductory Chemistry
300802.1 Biodiversity
300828.1 Physics 1
300831.2 Quantitative Thinking

External offering only

200263.5 Biometry
300830.2 Analysis of Change

Spring session

Choose at least two of

300803.1 Essential Chemistry 2
300816.1 Cell Biology
300818.1 Introduction to Physiology
200263.5 Biometry
300830.2 Analysis of Change
300831.2 Quantitative Thinking

And two electives

Year 2

Autumn session

300937.1 Advanced Science Project A

Choose at least three of

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1
300845.1 Genetics
300865.1 Plant Physiology
300837.1 Climate Change Science
300843.1 Forensic and Environmental Analysis
300876.1 Organic Chemistry
300931.1 Integrated Science
300980.1 Principles of Evolution

Spring session

300938.1 Advanced Science Project B

Choose at least three of

300848.1 Metabolism
300896.1 Microbiology 2
300817.1 Molecular Biology
300838.1 Comparative Physiology
300839.1 Ecology
300979.1 Principles of Zoology
300979.1 Principles of Zoology
300876.1 Organic Chemistry
300959.1 Mangamai'bangawarra: Indigenous Science

Year 3

Autumn session

300910.1 Advanced Science Project C

Choose at least two of

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology
300921.1 Plant Health and Biosecurity
300919.1 Occupational Health and Safety
300857.1 Environmental Geochemistry
300866.1 Analytical Microbiology
300851.1 Advanced Physiology
300978.1 Marine and Aquatic Ecology
300856.1 Ecosystem Carbon Accounting

And one Level 3 elective

Spring session

300924.1 Science Research Project

Choose at least two of

300905.1 Advanced Immunology
300927.2 Molecular Medicine
300855.1 Conservation Biology
300826.1 Medical Microbiology
300861.1 Vertebrate Biodiversity
300918.1 Invertebrate Biology
300909.1 Biological Adaptation to Climate Change
300883.1 Laboratory Quality Management

And one Level 3 elective

Parramatta Campus

Year 1

Autumn session

Non-mathematics majors: choose at least one appropriate mathematics or statistics unit in your first year

300811.1 Scientific Literacy

Choose three of

300800.2 Essential Chemistry 1

Or

300808.2 Introductory Chemistry
300802.1 Biodiversity
300828.1 Physics 1
300580.2 Programming Fundamentals
300831.2 Quantitative Thinking
300830.2 Analysis of Change
300672.2 Mathematics 1A
200025.2 Discrete Mathematics

External offering only

200263.5 Biometry

Spring session

Choose at least two of

300803.1 Essential Chemistry 2

300816.1 Cell Biology
300818.1 Introduction to Physiology
300829.1 Physics 2
300580.2 Programming Fundamentals
200263.5 Biometry
300672.2 Mathematics 1A
300673.2 Mathematics 1B

External offering only

300830.2 Analysis of Change
300831.2 Quantitative Thinking

And two electives

Year 2

Autumn session

300937.1 Advanced Science Project A

Choose at least three of

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1
300845.1 Genetics
300865.1 Plant Physiology
300837.1 Climate Change Science
300843.1 Forensic and Environmental Analysis
300876.1 Organic Chemistry
300931.1 Integrated Science
300980.1 Principles of Evolution

Spring session

300938.1 Advanced Science Project B

Choose at least three of

300848.1 Metabolism
300896.1 Microbiology 2
300817.1 Molecular Biology
300847.2 Immunology
300838.1 Comparative Physiology
300839.1 Ecology
300899.1 Inorganic Chemistry
300849.2 Physical Chemistry
200030.4 Differential Equations
301032.1 Making Sense of Data
301033.1 Introduction to Data Science

Year 3

Autumn session

300910.1 Advanced Science Project C

Choose at least two of

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology
300851.1 Advanced Physiology
300907.1 Advanced Inorganic Chemistry
300926.1 Advanced Physical Chemistry
300857.1 Environmental Geochemistry
200193.2 Abstract Algebra
200023.3 Analysis
301034.1 Predictive Modelling

And one Level 3 elective

Spring session

Choose at least one Capstone unit

300924.1 Science Research Project
200045.3 Quantitative Project

Choose at least two of

300905.1 Advanced Immunology
300826.1 Medical Microbiology
300855.1 Conservation Biology
300925.1 Advanced Analytical Chemistry
300906.1 Advanced Organic Chemistry
301035.1 Environmental Informatics
200022.3 Mathematical Modelling

And one Level 3 elective

Campbelltown Campus

Year 1

Autumn session

Non-mathematics majors: choose at least one mathematics or statistics unit in your first year

300811.1 Scientific Literacy

Choose three of

300800.2 Essential Chemistry 1

Or

300808.2 Introductory Chemistry
300802.1 Biodiversity
300828.1 Physics 1
300580.2 Programming Fundamentals
300830.2 Analysis of Change
300831.2 Quantitative Thinking
200263.5 Biometry
300672.2 Mathematics 1A
200025.2 Discrete Mathematics

Spring session

Choose at least two of

300803.1 Essential Chemistry 2
300816.1 Cell Biology
300818.1 Introduction to Physiology
300829.1 Physics 2
300580.2 Programming Fundamentals
300672.2 Mathematics 1A
300673.2 Mathematics 1B
200263.5 Biometry
300830.2 Analysis of Change
300831.2 Quantitative Thinking

And two electives

Year 2

Autumn session

300937.1 Advanced Science Project A

Choose at least three of

300936.1 Functional Proteins and Genes

300833.1 Microbiology 1
300845.1 Genetics
300865.1 Plant Physiology
300876.1 Organic Chemistry
300832.1 Analytical Chemistry
300931.1 Integrated Science
200027.2 Linear Algebra
200028.3 Advanced Calculus

Spring Session

300938.1 Advanced Science Project B

Choose at least three of

300848.1 Metabolism
300896.1 Microbiology 2
300817.1 Molecular Biology
300838.1 Comparative Physiology
300847.2 Immunology
300839.1 Ecology
300899.1 Inorganic Chemistry
300849.2 Physical Chemistry
200030.4 Differential Equations
301032.1 Making Sense of Data
301033.1 Introduction to Data Science

Year 3

Autumn session

300910.1 Advanced Science Project C

Choose at least two of

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology
300819.1 Topics in Physiology
300851.1 Advanced Physiology
300907.1 Advanced Inorganic Chemistry
300912.1 Molecular Pharmacokinetics
200193.2 Abstract Algebra
301034.1 Predictive Modelling
200023.3 Analysis

And one Level 3 elective

Spring session

Choose one Capstone unit

300924.1 Science Research Project
200045.3 Quantitative Project

Choose at least two of

300905.1 Advanced Immunology
300826.1 Medical Microbiology
300927.2 Molecular Medicine
300925.1 Advanced Analytical Chemistry
300906.1 Advanced Organic Chemistry
301035.1 Environmental Informatics
200022.3 Mathematical Modelling

And one Level 3 elective

Key Program - Nanotechnology

KT3065.1

This key program is available to students who commenced prior to 2013

Location

Campus	Mode
Campbelltown Campus	Internal

Specialisation Structure

Students completing the Bachelor of Medical Science (Advanced) Nanotechnology will complete the following course structure.

Year 1

Autumn session

300828.1 Physics 1
300811.1 Scientific Literacy
300800.2 Essential Chemistry 1
300672.2 Mathematics 1A

Spring session

300827.1 Nanotechnology
300803.1 Essential Chemistry 2
300829.1 Physics 2
300673.2 Mathematics 1B

Year 2

Autumn session

300930.1 Classical Physics and Advanced Technologies
300849.2 Physical Chemistry
300899.1 Inorganic Chemistry
300937.1 Advanced Science Project A

Spring session

300818.1 Introduction to Physiology
300816.1 Cell Biology
300923.1 Quantum Physics
300938.1 Advanced Science Project B

Year 3

Autumn session

300890.1 Biodevices
300936.1 Functional Proteins and Genes
300819.1 Topics in Physiology
300910.1 Advanced Science Project C

Spring session

300893.1 Topics in Medical Science
300895.1 Nanochemistry
300889.1 Pathological Basis of Disease

300892.1 Medical Science Project

Key Program - Animal Science

KT3097.1

Specialisation Structure

Students completing the Bachelor of Natural Science (Advanced) (Animal Science) will complete the following course structure.

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300807.1 Human Animal Interactions
300813.1 Wildlife Studies

Spring session

300810.1 Resource Sustainability
300801.1 Animal Science

Choose one of

300672.2 Mathematics 1A
200263.5 Biometry

And one elective

Year 2

Autumn session

300931.1 Integrated Science
300834.1 Animal Health and Welfare
300853.1 Animal Nutrition and Feeding
300937.1 Advanced Science Project A

Spring session

300932.1 Natural Science Research Methods
300835.1 Animal Reproduction
300938.1 Advanced Science Project B

Choose one of

300836.1 Botany
300838.1 Comparative Physiology

Year 3

Autumn session

300913.1 Field Project 1
300878.1 Animal Behaviour
300854.1 Animal Production
300910.1 Advanced Science Project C

Spring session

300914.1 Field Project 2
300861.1 Vertebrate Biodiversity

And two electives

Key Program - Environmental Management

KT3098.1

Specialisation Structure

Students completing the Bachelor of Natural Science (Advanced) (Environmental Management) will complete the following course structure.

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300813.1 Wildlife Studies
300824.1 Management of Aquatic Environments

Spring session

300810.1 Resource Sustainability
300814.1 Water Quality Assessment and Management
300812.1 Understanding Landscape

Choose one of

300672.2 Mathematics 1A
200263.5 Biometry

Year 2

Autumn session

300931.1 Integrated Science
101878.1 Indigenous Landscapes
300840.1 Environmental Planning and Climate Change
300937.1 Advanced Science Project A

Spring session

300932.1 Natural Science Research Methods
300875.1 Landuse and the Environment
300841.1 Environmental Regulation and Policy
300938.1 Advanced Science Project B

Year 3

Autumn session

300913.1 Field Project 1
300858.1 Environmental Risk Management
300910.1 Advanced Science Project C

And one elective

Spring session

300914.1 Field Project 2
300860.1 Urban Environment
300870.1 Water in the Landscape

And one elective

Key Program - Sustainable Agriculture and Food Security

KT3099.1

Specialisation Structure

Students completing the Bachelor of Natural Science (Advanced) (Sustainable Agriculture and Food Security) will complete the following course structure.

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300804.1 Feeding the Planet
300808.2 Introductory Chemistry

Spring session

300810.1 Resource Sustainability
300815.1 Crop Production
300805.1 Food Science 1

Choose one of

300672.2 Mathematics 1A
200263.5 Biometry

Year 2

Autumn session

300931.1 Integrated Science
300863.1 Agronomy
300937.1 Advanced Science Project A

Choose one of

300853.1 Animal Nutrition and Feeding
300865.1 Plant Physiology

Spring session

300932.1 Natural Science Research Methods
300823.1 Soils
300875.1 Landuse and the Environment
300938.1 Advanced Science Project B

Year 3

Autumn session

300913.1 Field Project 1
300869.1 Postharvest
300921.1 Plant Health and Biosecurity
300910.1 Advanced Science Project C

Spring session

300914.1 Field Project 2
300870.1 Water in the Landscape
300917.1 Global Nutrition, Food and Community

And one elective

Key Program - Biological Science

KT3128.1

The biological sciences are diverse, fascinating, rapidly changing, and essential to our understanding of living systems at scales ranging from the molecular to the global. They play a vital role in our understanding of the environment, as well as animals, plants and micro-organisms, and are essential to a wide range of contemporary industries. A Bachelor of Science (Biological Science) offers a solid foundation in the basic sciences, including biology, microbiology, biochemistry and environmental science. You will be equipped to enter government, industry or research-based employment in this area (e.g. biotechnology companies, pathology, quality assurance, university and hospital laboratories, scientific sales and government agencies).

Specialisation Structure

Students completing the Bachelor of Science (Advanced Science) (Biological Science) will complete the following course structure.

Note: At least 60 credit points must be at Level 3 or above

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300800.2 Essential Chemistry 1

Or

300808.2 Introductory Chemistry

Choose one of

300672.2 Mathematics 1A
200263.5 Biometry
300830.2 Analysis of Change
300831.2 Quantitative Thinking

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300818.1 Introduction to Physiology

And one elective

Year 2

Autumn session

300937.1 Advanced Science Project A
300936.1 Functional Proteins and Genes
300833.1 Microbiology 1

Choose one of

300845.1 Genetics

Hawkesbury campus only

300980.1 Principles of Evolution

Spring session

300938.1 Advanced Science Project B
300817.1 Molecular Biology

Choose two more Level 2 science units from the list below

300848.1 Metabolism
300896.1 Microbiology 2
300838.1 Comparative Physiology
300847.2 Immunology
300839.1 Ecology
300876.1 Organic Chemistry
300832.1 Analytical Chemistry
301032.1 Making Sense of Data
301033.1 Introduction to Data Science
300959.1 Mangamai'bangawarra: Indigenous Science

Hawkesbury only

300979.1 Principles of Zoology
300836.1 Botany

Year 3

Autumn session

300910.1 Advanced Science Project C

And one Level 3 elective unit

Hawkesbury Campus

Choose at least two of

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology
300921.1 Plant Health and Biosecurity
300865.1 Plant Physiology
300837.1 Climate Change Science
300856.1 Ecosystem Carbon Accounting
300919.1 Occupational Health and Safety
300866.1 Analytical Microbiology
300851.1 Advanced Physiology
300978.1 Marine and Aquatic Ecology

Parramatta Campus

Choose at least two of

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology
300851.1 Advanced Physiology
300865.1 Plant Physiology

Campbelltown Campus

Choose at least two of

300820.1 Genes, Genomics and Human Health
300850.1 Advanced Cell Biology
300819.1 Topics in Physiology
300851.1 Advanced Physiology

Spring session

Capstone unit

300924.1 Science Research Project

And one Level 3 elective unit

Hawkesbury Campus

Choose at least two of

300905.1 Advanced Immunology
300826.1 Medical Microbiology
300861.1 Vertebrate Biodiversity
300918.1 Invertebrate Biology
300927.2 Molecular Medicine
300855.1 Conservation Biology
300909.1 Biological Adaptation to Climate Change
300883.1 Laboratory Quality Management

Parramatta Campus

Choose at least two of

300905.1 Advanced Immunology
300826.1 Medical Microbiology
300927.2 Molecular Medicine

Campbelltown Campus

Choose at least two of

300905.1 Advanced Immunology
300826.1 Medical Microbiology
300927.2 Molecular Medicine

Key Program - Chemistry

KT3129.1

A Bachelor of Science (Chemistry) will prepare you to take part in a process of inquiry, by both contributing to it and by using scientific knowledge to solve current problems. The Chemistry program provides a strong background in the key topic areas of contemporary chemistry, including aspects of chemical theory in analytical, inorganic, organic and physical chemistry, with a strong emphasis on practical laboratory skills, and applications in contemporary research, industry and the environment. A research project is available to students in the final year of the degree preparing you for a professional career in a wide range of chemistry based industries.

Specialisation Structure

Students completing the Bachelor of Science (Advanced Science) (Chemistry) will complete the following course structure.

Year 1

Autumn session

300800.2 Essential Chemistry 1

300811.1 Scientific Literacy
300828.1 Physics 1

Choose one of

300802.1 Biodiversity
300831.2 Quantitative Thinking
300830.2 Analysis of Change
200263.5 Biometry
200025.2 Discrete Mathematics
300580.2 Programming Fundamentals

Spring session

300803.1 Essential Chemistry 2
300672.2 Mathematics 1A

Or

300830.2 Analysis of Change

Choose one of

300816.1 Cell Biology
300818.1 Introduction to Physiology
300829.1 Physics 2
300673.2 Mathematics 1B
200263.5 Biometry
300580.2 Programming Fundamentals

And one elective

Year 2

Autumn session

300937.1 Advanced Science Project A
300876.1 Organic Chemistry
300832.1 Analytical Chemistry

Choose at least one of

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1
300845.1 Genetics
300865.1 Plant Physiology
300931.1 Integrated Science
200027.2 Linear Algebra
200028.3 Advanced Calculus

Spring session

300938.1 Advanced Science Project B
300899.1 Inorganic Chemistry
300849.2 Physical Chemistry

Choose at least one of

300848.1 Metabolism
300896.1 Microbiology 2
300817.1 Molecular Biology
300847.2 Immunology
300838.1 Comparative Physiology
300839.1 Ecology
200030.4 Differential Equations
301032.1 Making Sense of Data
301033.1 Introduction to Data Science
300959.1 Mangamai'bangawarra: Indigenous Science

Year 3

Autumn session

300910.1 Advanced Science Project C
300907.1 Advanced Inorganic Chemistry

Choose one of

300926.1 Advanced Physical Chemistry
300912.1 Molecular Pharmacokinetics

And one Level 3 elective

Spring session

Capstone Unit

300924.1 Science Research Project

And

300925.1 Advanced Analytical Chemistry
300906.1 Advanced Organic Chemistry

And one elective

Key Program - Environmental Science

KT3130.1

Solving the world's environmental problems will require professionals who are trained in the sciences underlying these issues and who understand the wider human and social contexts of the challenges faced. A Bachelor of Science (Environmental Science) will open up a wide range of career opportunities for those with environmental, conservation and ecological interests. A solid grounding in the underlying science is essential for people intending to work in this field, who will need to integrate knowledge across a range of disciplines, to devise solutions spanning the scientific and social issues involved. Some of the key areas in this degree include conservation biology, environmental analysis, regulation and policy, environmental chemistry, climate change science, microbiological and spatial data analysis, environmental geochemistry, biodiversity and adaptation, and ecology including aquatic ecology. There are a range of majors (climate change and environmental management) and sub-majors (sustainability) offered in Science that can add diversity and/or focus to your degree. There are also a range of sub-majors from other disciplines such as the arts, business, humanities and social sciences to choose from, although these may require cross campus study and are subject to availability and timetabling.

Specialisation Structure

Students completing the Bachelor of Science (Advanced Science) (Environmental Science) will complete the following course structure.

Year 1

Autumn session

300802.1 Biodiversity

300811.1 Scientific Literacy
300824.1 Management of Aquatic Environments
300800.2 Essential Chemistry 1

Or

300808.2 Introductory Chemistry

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
101646.2 Analysis of Spatial Data
300810.1 Resource Sustainability

Year 2

Autumn session

300937.1 Advanced Science Project A
300837.1 Climate Change Science
300813.1 Wildlife Studies

Choose one of

300672.2 Mathematics 1A
200263.5 Biometry
300830.2 Analysis of Change
300831.2 Quantitative Thinking

Spring session

300938.1 Advanced Science Project B
300839.1 Ecology
300841.1 Environmental Regulation and Policy

Choose one of

300836.1 Botany
300861.1 Vertebrate Biodiversity

Year 3

Autumn session

300910.1 Advanced Science Project C
300978.1 Marine and Aquatic Ecology
300857.1 Environmental Geochemistry

Choose one of

300833.1 Microbiology 1
300856.1 Ecosystem Carbon Accounting

Spring session

Capstone Unit

300924.1 Science Research Project
300855.1 Conservation Biology
300909.1 Biological Adaptation to Climate Change

Choose one of

300918.1 Invertebrate Biology
300861.1 Vertebrate Biodiversity

Key Program - Forensic Science

KT3131.1

This is a three year program that produces scientists who have a good background in the biological and chemical sciences, coupled with specialised expertise in forensic science, including methods of forensic analysis, crime scene investigation, forensic photography, forensic investigation, crime and criminal justice and complex case. Students may opt to further specialise in forensic biology, chemistry or microbiology by selecting additional electives or studies in a related or unrelated discipline. Career opportunities include forensic scientists, crime scene investigators, private investigators and consultants, police officers, drug analysts, researchers and academics, and specialised forensic science practitioners. The main employers of forensic scientists are State and Federal police services, State and Commonwealth Government Health Departments and analytical chemical laboratories. Graduates will be versatile with a wide skills base with (depending on their choice of electives) potential for employment in analytical chemistry and microbiology, quality control and assurance, biochemistry and molecular biology, scientific research, education and the chemical industry.

Specialisation Structure

Students completing the Bachelor of Science (Advanced Science) (Forensic Science) will complete the following course structure.

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300806.1 Forensic Science
300800.2 Essential Chemistry 1

Or

300808.2 Introductory Chemistry

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300874.2 Digital Forensic Photography

Choose one of

300831.2 Quantitative Thinking
300830.2 Analysis of Change
200263.5 Biometry
300672.2 Mathematics 1A

Year 2

Autumn session

300937.1 Advanced Science Project A
300843.1 Forensic and Environmental Analysis
300845.1 Genetics

300825.2 Introduction to Anatomy

Spring session

300938.1 Advanced Science Project B
300873.2 Crime Scene Investigation
300817.1 Molecular Biology
401171.1 Imaging Science

Year 3

Autumn session

300910.1 Advanced Science Project C
300981.1 Environmental Forensic Investigations
300868.1 Forensic Chemistry
300882.1 Forensic Archaeology

Spring session

Capstone unit

300924.1 Science Research Project
300911.1 Complex Forensic Studies
401170.1 Forensic Biology

Choose one of

300877.1 Toxicology
101567.4 Evidence, Investigations and Police Intelligence
300918.1 Invertebrate Biology

Key Program - Nutrition and Food Science

KT3132.1

Healthy eating is a vital part of good health. There is more to healthy eating than you realise. A Bachelor of Science (Nutrition and Food Science) will prepare you for the future by developing the skills and knowledge to solve future challenges in nutrition and health, food quality and security. The majors will allow further specialisation in your studies in Nutrition and Food Science and allow a wide range of careers in community nutrition and health promotion ensuring healthy diets and lifestyles for good health. The program has strong industry and community links, well-equipped facilities including food processing pilot plant and modern kitchen facilities. A major in Human Nutrition investigates healthy eating as a vital part of maintaining good health and health promotion. The major covers specialised studies in applied and community nutrition, metabolism and human physiology, preparing students for careers in community nutrition, health promotion and education, or work in a range of food and nutrition related businesses, including new product development of healthy foods A major in Food Science explores the science behind food, its preparation, manufacture, storage and preservation. The major covers specialised topics in food processing, quality assurance, product development, postharvest, packaging, microbiological and chemical analysis of foods preparing you for a wide range of careers in the food and beverage related industries, including food product development, quality assurance, food regulations, research and development, plus management of fresh food supply. A major in Food Technology Secondary Teaching brings together food science and nutrition with education studies to meet the graduate requirements for teaching food technology. The major includes specialised studies in food processing, food product development, nutrition, contemporary food issues, and growing crops for school garden projects. It will also address issues in the food marketplace relevant to the Australian food industry and prepare you to teach biology, chemistry or design and technology as additional first or second teaching areas, or design and technology depending on electives selected.

Specialisation Structure

Students completing the Bachelor of Science (Advanced Science) (Nutrition and Food Science) will complete the following course structure.

Note: At least 60 credit points must be at Level 3 or above. (Some students may need to take an elective as a Level 3 unit)

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300800.2 Essential Chemistry 1

Or

300808.2 Introductory Chemistry

Choose one of

300672.2 Mathematics 1A
200263.5 Biometry
300830.2 Analysis of Change
300831.2 Quantitative Thinking

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300805.1 Food Science 1
300937.1 Advanced Science Project A

Students in the Human Nutrition Major (Advanced) complete the following as their fourth unit:

300818.1 Introduction to Physiology

Note: 300937 - Advanced Science Project A is situated in Semester 2 for administrative purposes only. This unit will be completed at an appropriate time in Semester 3 or 5 after consultation with the Director of Academic Programs.

Year 2

Autumn session

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1
300842.2 Food Science 2
300933.1 Nutrition and Health 1
300937.1 Advanced Science Project A

300937 - Advanced Project A: enrol in this unit as a fifth unit in Year 2 Autumn semester; attend Workshop in

Autumn mid-semester break and complete literature review by end of July.

Spring session

300938.1 Advanced Science Project B
300879.1 Experimental Foods

Human Nutrition Major (Advanced)

300934.1 Nutrition and Health 2
300848.1 Metabolism

Food Science Major (Advanced)

300859.1 Food Safety
300869.1 Postharvest

Year 3

Autumn session

300910.1 Advanced Science Project C
300922.1 Quality Assurance and Food Analysis

Human Nutrition Major (Advanced)

300851.1 Advanced Physiology

Students in the Human Nutrition Major may wish to complete an optional extra unit in this semester: choose one of

300819.1 Topics in Physiology
300928.1 Consumer Issues in Nutrition

Food Science Major (Advanced)

300871.1 Culinary Science

Choose one of

300866.1 Analytical Microbiology
300843.1 Forensic and Environmental Analysis

Spring session

Capstone Unit

300924.1 Science Research Project
300915.1 Food Product Development

Human Nutrition Major (Advanced)

300908.1 Applied Nutrition
300917.1 Global Nutrition, Food and Community

Food Science Major (Advanced)

300904.1 Advanced Food Science and Technology
300883.1 Laboratory Quality Management

All students must satisfactorily complete the unit 300655 - Approved Industrial Experience (10 weeks), comprising a minimum of ten weeks Approved Industrial Experience.

300655.2 Approved Industrial Experience

Key Program - Mathematical Sciences

KT3133.1

A Bachelor of Science (Mathematical Science) provides you with a strong background in key analytical techniques that have contemporary applications such as the treatment and interpretation of data and the modelling of real-world problems such as global warming. You will develop skills that allow you to model and solve real world problems using mathematical techniques and have the opportunity to specialise in mathematics, statistics or a combination of both. This will provide you with a wide range of career options in commercial and government institutions, which require highly-skilled problem-solvers. There are also a range of majors (e.g. biology, chemistry) and sub-majors offered in Science that can add diversity and/or focus to your degree. There are also a range of sub-majors from other disciplines such as the arts, business, humanities and social sciences to choose from, although these may require cross campus study and are subject to availability and timetabling.

Specialisation Structure

Students completing the Bachelor of Science (Advanced Science) (Mathematical Sciences) will complete the following course structure.

Year 1

Autumn session

300672.2 Mathematics 1A
300811.1 Scientific Literacy
200025.2 Discrete Mathematics

Choose one of

300802.1 Biodiversity
300828.1 Physics 1
300800.2 Essential Chemistry 1
300808.2 Introductory Chemistry

Spring session

300673.2 Mathematics 1B
200263.5 Biometry

Choose one Information Technology unit, except: 300134 Introduction to Information Technology

And one elective

Year 2

Autumn session

300937.1 Advanced Science Project A
200027.2 Linear Algebra
200028.3 Advanced Calculus
300580.2 Programming Fundamentals

Spring session

300938.1 Advanced Science Project B
200030.4 Differential Equations

Choose one of

301032.1 Making Sense of Data
301033.1 Introduction to Data Science

Choose one of

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300829.1 Physics 2

Year 3

Autumn session

300910.1 Advanced Science Project C
200193.2 Abstract Algebra
301034.1 Predictive Modelling
200023.3 Analysis

Spring session

Capstone Unit

200045.3 Quantitative Project
301035.1 Environmental Informatics
200022.3 Mathematical Modelling

And one elective

Key Program - Zoology

KT3134.1

A Bachelor of Science (Zoology) recognises the increased demand for scientific knowledge of how to conserve, protect and care for animals, including native wildlife, and companion and production animals. It will enable you to develop an in-depth scientific understanding of how animals function and interact with their environment; from their ecology and evolution; to physiology and biochemistry of tissues and major organs systems, as well as the structure and function of biomolecules and cells. The key learning and research areas embodied in this degree are ecology, evolution, physiology, growth, reproduction, genetics, and conservation biology. On-campus animal facilities include those for reptiles, small marsupials, small rodents, horses, sheep and cattle, as well as over 1,000ha of native, rural and aquatic habitats.

Specialisation Structure

Students completing the Bachelor of Science (Advanced Science) (Zoology) will complete the following course structure.

Note: At least 60 credit points must be at Level 3 or above.

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300813.1 Wildlife Studies
300800.2 Essential Chemistry 1

Or

300808.2 Introductory Chemistry

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300801.1 Animal Science

Choose one of

300672.2 Mathematics 1A
200263.5 Biometry
300830.2 Analysis of Change
300831.2 Quantitative Thinking

Year 2

Autumn session

300937.1 Advanced Science Project A
300834.1 Animal Health and Welfare
300936.1 Functional Proteins and Genes
300980.1 Principles of Evolution

Spring session

300938.1 Advanced Science Project B
300838.1 Comparative Physiology
300839.1 Ecology
300979.1 Principles of Zoology

Year 3

Autumn session

300910.1 Advanced Science Project C
300878.1 Animal Behaviour
300978.1 Marine and Aquatic Ecology

And one elective

Spring session

300924.1 Science Research Project
300855.1 Conservation Biology
300909.1 Biological Adaptation to Climate Change

Choose one of

300918.1 Invertebrate Biology
300861.1 Vertebrate Biodiversity

Key Program - Health Promotion

KT4000.1

Health Promotion extends beyond raising awareness of healthcare issues to developing and implementing strategies for communities, individuals and policy-makers to improve their health and wellbeing. Health Promotion graduates help communities and individuals to change their behaviour, working with employers, not-for-profit foundations, disability councils, the public health sector, community health centres, youth centres, schools and local government. Health promotion projects are as diverse as

injury prevention, skin cancer prevention, HIV/AIDS awareness and community development. The program combines studies of health politics and planning, health promotion practice, injury prevention, public health with a comprehensive foundation of the health sciences to develop the professional competencies important for ethical and safe practice and high quality care and the skills to work in multidisciplinary teams. Evidence-based practice is one of the most important trends in healthcare today and a strong feature of the program. There is room for electives in particular areas of interest opening up a richer experience of university life or a double major in two of the areas of Health Promotion, Health Services Management or Therapeutic Recreation.

Location

Campus	Mode
Campbelltown Campus	Internal

Specialisation Structure

Qualification for this Key Program requires the successful completion of 240 credit points including the units listed in the recommended sequence below.

Full-time - Start Year Intake

Year 1

Autumn session

400870.2 Population Health and Society
300361.3 Introduction to Human Biology
400783.2 Professional Pathways in Health Science
400871.2 Professional Health Competencies

Spring session

101614.2 Psychology and Health
400863.2 Foundations of Research and Evidence-Based Practice
400732.2 Communication in Health

And one elective

Recommended elective

400277.4 Health Services Management

Year 2

Autumn session

400867.2 Approaches to Health Promotion
400864.3 Research Methods (Quantitative and Qualitative)
400866.3 Culture, Diversity and Health

And one elective

Recommended elective

400244.2 Introduction to Leisure and Recreation Theory

Spring session

400966.2 Health Politics, Policy and Planning
400286.3 Injury Prevention
400285.2 Public Health

And one elective

Year 3

Autumn session

400275.2 Health Planning Project
400784.2 Health Promotion Practice 1

And two electives

Spring session

400785.2 Health Promotion Practice 2
400249.2 Ethical and Legal Issues in Health Care
400786.2 Professional Transition Project

And one elective

Full-time - Mid Year Intake

Year 1

Spring session

101614.2 Psychology and Health
400863.2 Foundations of Research and Evidence-Based Practice
400732.2 Communication in Health

And one elective

Recommended elective

400277.4 Health Services Management

Year 2

Autumn session

300361.3 Introduction to Human Biology
400783.2 Professional Pathways in Health Science
400871.2 Professional Health Competencies

And one elective

Spring session

400966.2 Health Politics, Policy and Planning
400286.3 Injury Prevention
400285.2 Public Health

And one elective

Year 3

Autumn session

400867.2 Approaches to Health Promotion
400870.2 Population Health and Society
400864.3 Research Methods (Quantitative and Qualitative)
400866.3 Culture, Diversity and Health

Spring session

400785.2 Health Promotion Practice 2
400249.2 Ethical and Legal Issues in Health Care
400786.2 Professional Transition Project

And one elective

Year 4

Autumn session

400275.2 Health Planning Project
400784.2 Health Promotion Practice 1

And two electives

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Health Services Management

KT4001.1

Health Services Management plays a vital role in society, in ensuring that public investment in health is well spent, and that private healthcare businesses deliver effective, efficient services. It puts management studies in the distinctive context of the health sector to integrate clinical understanding, management skills and knowledge of the health care system and policy development. Health Services Management graduates are in demand to work in quality improvement, financial management and occupational health and safety. Two areas of growth are in mental health services and the aged care sector. Graduates will be skilled in managing and responding to rapid changes within the health care system and in areas that deal with policy initiative, development and evaluation. The program combines studies of managing people, resources and finances with a comprehensive foundation of the health sciences to develop the professional competencies important for ethical and safe practice and high quality care and the skills to work in multidisciplinary teams. Evidence-based practice is one of the most important trends in healthcare today and a strong feature of the program. There is room for electives in particular areas of interest opening up a richer experience of university life or a double major in two of the areas of Health Promotion, Health Services Management or Therapeutic Recreation.

Location

Campus	Mode
Campbelltown Campus	Internal

Specialisation Structure

Professional Accreditation

The Bachelor of Health Science (Health Service Management) has Professional Accreditation with the Australasian College of Health Service Management.

Qualification for this Key Program requires the successful completion of 240 credit points including the units listed in the recommended sequence below.

Full-time - Start Year Intake

Year 1

Autumn session

400870.2 Population Health and Society
300361.3 Introduction to Human Biology
400783.2 Professional Pathways in Health Science
400871.2 Professional Health Competencies

Spring session

101614.2 Psychology and Health
400277.4 Health Services Management
400863.2 Foundations of Research and Evidence-Based Practice
400732.2 Communication in Health

Year 2

Autumn session

400867.2 Approaches to Health Promotion
400864.3 Research Methods (Quantitative and Qualitative)
400866.3 Culture, Diversity and Health

And one elective

Recommended elective

400244.2 Introduction to Leisure and Recreation Theory

Spring session

400966.2 Health Politics, Policy and Planning
400788.3 Health Services Workforce Management

And two electives

Year 3

Autumn session

400275.2 Health Planning Project
400787.2 Health Services Management Practice

And two electives

Spring session

400279.3 Health Services Financial Management
400249.2 Ethical and Legal Issues in Health Care
400786.2 Professional Transition Project

And one elective

Full-time - Mid Year Intake

Year 1

Spring session

101614.2 Psychology and Health
400277.4 Health Services Management

400863.2 Foundations of Research and Evidence-Based Practice
400732.2 Communication in Health

Year 2

Autumn session

400870.2 Population Health and Society
300361.3 Introduction to Human Biology
400783.2 Professional Pathways in Health Science
400871.2 Professional Health Competencies

Spring session

400966.2 Health Politics, Policy and Planning
400788.3 Health Services Workforce Management

And two electives

Year 3

Autumn session

400867.2 Approaches to Health Promotion
400864.3 Research Methods (Quantitative and Qualitative)
400866.3 Culture, Diversity and Health

And one elective

Recommended elective

400244.2 Introduction to Leisure and Recreation Theory

Spring session

400279.3 Health Services Financial Management
400249.2 Ethical and Legal Issues in Health Care
400786.2 Professional Transition Project

And one elective

Year 4

Autumn session

400275.2 Health Planning Project
400787.2 Health Services Management Practice

And two electives

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Key Program - Therapeutic Recreation

KT4002.1

Therapeutic Recreation is the link between leisure and health improvement, using recreation as a way to improve quality of life. Therapeutic Recreation graduates work with patients to use leisure activities to improve health and life quality, for example in rehabilitation centres and psychiatric units, special schools, day care centres. aged care facilities, or in local government or community settings. The program combines theory and practice in learning, education programming, aged care, disability and mental health with a comprehensive foundation of the health sciences to develop the professional competencies important for ethical and safe practice and high quality care and the skills to work in multidisciplinary teams. Evidence-based practice is one of the most important trends in healthcare today and a strong feature of the program. There is room for electives in particular areas of interest opening up a richer experience of university life or a double major in two of the areas of Health Promotion, Health Services Management or Therapeutic Recreation.

Location

Campus	Mode
Campbelltown Campus	Internal

Specialisation Structure

Professional Accreditation

Accreditation from the Diversional Therapy Association of Australia (for Therapeutic Recreation Key Program) has been granted.

Qualification for this Key Program requires the successful completion of 240 credit points including the units listed in the recommended sequence below.

Recommended Sequence

Full-time - Start Year Intake

Year 1

Autumn session

400870.2 Population Health and Society
300361.3 Introduction to Human Biology
400783.2 Professional Pathways in Health Science
400871.2 Professional Health Competencies

Spring session

101614.2 Psychology and Health
400863.2 Foundations of Research and Evidence-Based Practice
400732.2 Communication in Health

And one elective

Recommended elective

400277.4 Health Services Management

Year 2

Autumn session

400867.2 Approaches to Health Promotion
400244.2 Introduction to Leisure and Recreation Theory

400864.3 Research Methods (Quantitative and Qualitative)
400866.3 Culture, Diversity and Health

Spring session

400968.2 Professional Practice in Aged Care and Disability
400246.3 Workplace Learning 1 (Therapeutic Recreation)

And two electives

Year 3

Autumn session

400789.3 Leisure Education Programming and Mental Health
400252.2 Workplace Learning 2 (Community Placement)

And two electives

Spring session

400786.2 Professional Transition Project
400249.2 Ethical and Legal Issues in Health Care
400254.2 Therapeutic Recreation Professional Project

And one elective

Full-time - Mid Year Intake

Year 1

Spring session

101614.2 Psychology and Health
400863.2 Foundations of Research and Evidence-Based Practice
400732.2 Communication in Health

And one elective

Recommended elective

400277.4 Health Services Management

Year 2

Autumn session

300361.3 Introduction to Human Biology
400244.2 Introduction to Leisure and Recreation Theory
400783.2 Professional Pathways in Health Science
400871.2 Professional Health Competencies

Spring session

400968.2 Professional Practice in Aged Care and Disability
400246.3 Workplace Learning 1 (Therapeutic Recreation)

And two electives

Year 3

Autumn session

400867.2 Approaches to Health Promotion
400870.2 Population Health and Society
400864.3 Research Methods (Quantitative and Qualitative)
400866.3 Culture, Diversity and Health

Spring session

400786.2 Professional Transition Project
400249.2 Ethical and Legal Issues in Health Care
400254.2 Therapeutic Recreation Professional Project

And one elective

Year 4

Autumn session

400789.3 Leisure Education Programming and Mental Health
400252.2 Workplace Learning 2 (Community Placement)

And two electives

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Major - Aquatic Biology

M3046.1

Aquatic and marine environments play vital roles in providing food, water, recreation and other ecosystem services to human society, as well as providing habitat for important species that make up global biodiversity. This major will equip students with the background knowledge and training to work in aquatic and marine environments, to learn skills in inquiry and problem solving, so that they can contribute beneficially to management and/or conservation of waterways and oceans and the biodiversity within them.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

Students must complete the following eight units

Level 1

300802.1 Biodiversity
300824.1 Management of Aquatic Environments

Level 2

300838.1 Comparative Physiology
300839.1 Ecology
300877.1 Toxicology

Level 3

300929.1 Aquatic Ecology
300918.1 Invertebrate Biology
300870.1 Water in the Landscape

Major - Chemistry

M3047.1

This major will give students a solid grounding in chemistry as a scientific discipline; units can be selected to specialise in inorganic, organic, analytical or physical chemistry. Completion of the major will also qualify students as secondary school chemistry teachers.

Location

Campus	Mode
Campbelltown Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

Students must complete eight units as follows

Level 1

300800.2 Essential Chemistry 1
300803.1 Essential Chemistry 2

Level 2

Choose three of

300876.1 Organic Chemistry
300899.1 Inorganic Chemistry
300849.2 Physical Chemistry

*Students may only choose one unit 300832 - Analytical Chemistry or 300843 - Forensic and Environmental Analysis

300832.1 Analytical Chemistry
300843.1 Forensic and Environmental Analysis

Level 3

Choose one of the following capstone units

300924.1 Science Research Project
300883.1 Laboratory Quality Management

And choose two of

300925.1 Advanced Analytical Chemistry
300907.1 Advanced Inorganic Chemistry
300906.1 Advanced Organic Chemistry
300926.1 Advanced Physical Chemistry
300891.1 Advanced Medicinal Chemistry
300920.1 Pharmacological Chemistry

Major - Conservation Biology

M3049.1

Conservation biology has emerged as a field of study from a synthesis of the ecological, demographic, genetic and societal risks faced by small natural populations. This major equips students with skills in fundamental biology, in the ecology of populations and communities, in population genetics and in the legal conservation framework to enable them to work in this area.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

Students must complete eight units as follows. Five units must be from the Level 1 and 2 pools, with no more than three units at Level 1. Students must also complete three units at Level 3.

Level 1

300802.1 Biodiversity
300816.1 Cell Biology
300813.1 Wildlife Studies
300824.1 Management of Aquatic Environments

Level 2

300839.1 Ecology
300845.1 Genetics
300836.1 Botany

Level 3

Students must complete

300855.1 Conservation Biology

And choose two of

300929.1 Aquatic Ecology
300918.1 Invertebrate Biology
300861.1 Vertebrate Biodiversity

Major - Forensic Science

M3051.1

This major gives a systematic introduction to the principles and practice of forensic science, emphasising the importance of maintaining the integrity of physical evidence during its recovery and analysis. The major is designed to complement a science-based degree, but it may also be taken by students who are studying a different discipline or profession. It includes the relevant pre-requisites for the Level 2 and 3 units, and the forensic content and principles are sequenced through the curriculum. This major in may be complemented by units from other disciplines such as

the biological sciences, statistics, policing, criminology and law. Students who are interested in the analysis of DNA evidence may take Functional Genes and Proteins and Molecular Biology, or equivalent units. Other relevant science units include Biometry, Botany, Genetics, Introduction to Anatomy and Histology, Invertebrate Biology, Ecology and Physics 1.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

This major is only available to students enrolled in 3675 Bachelor of Science and to students in 3562 Bachelor of Science (Advanced Science) who are undertaking the Forensic Science program. This major is not available to students enrolled in the course 3589 Bachelor of Science (Forensic Science).

Students must complete eight units as follows

Level 1

300800.2 Essential Chemistry 1
300803.1 Essential Chemistry 2
300806.1 Forensic Science

Level 2

300843.1 Forensic and Environmental Analysis
300935.2 Evidence and Crime Scene Management

Level 3

300882.1 Forensic Archaeology
300868.1 Forensic Chemistry
300883.1 Laboratory Quality Management

Major - General Biology

M3052.1

The major in General Biology gives students a broad training in biology, with the opportunity to select a program that ranges across the scale from macro- to micro- to molecular level processes. Completion of the major meets the requirements for secondary school biology teaching (post-graduate study is required to qualify as a teacher).

Location

Campus	Mode
Campbelltown Campus	Internal
Hawkesbury Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

Students must complete a maximum of three units from Level 1 and at least three units from Level 3.

Students must complete eight units as follows

Level 1

300802.1 Biodiversity
300816.1 Cell Biology

Choose six of the following units, including at least three at Level 3.

Level 1

300800.2 Essential Chemistry 1
300803.1 Essential Chemistry 2

Level 2

300936.1 Functional Proteins and Genes
300848.1 Metabolism
300817.1 Molecular Biology
300847.2 Immunology
300845.1 Genetics
300833.1 Microbiology 1
300896.1 Microbiology 2
300838.1 Comparative Physiology
300839.1 Ecology
300865.1 Plant Physiology
300836.1 Botany

Level 3

300851.1 Advanced Physiology
300866.1 Analytical Microbiology
300850.1 Advanced Cell Biology
300819.1 Topics in Physiology
300855.1 Conservation Biology
300905.1 Advanced Immunology
300820.1 Genes, Genomics and Human Health
300826.1 Medical Microbiology
300927.2 Molecular Medicine
300929.1 Aquatic Ecology
300861.1 Vertebrate Biodiversity
300918.1 Invertebrate Biology
300924.1 Science Research Project
300883.1 Laboratory Quality Management
300919.1 Occupational Health and Safety

Major - Mathematics

M3054.1

This major covers topics in the traditional areas of calculus and algebra. Single and multivariable calculus are covered, as well as topics in linear algebra, analysis and mathematical modelling. This major is available to all UWS students and may meet the NSW Institute of Teachers accreditation requirements for teaching Mathematics as a first subject in NSW state high schools.

Location

Campus	Mode
Campbelltown Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

Students must complete eight units as follows

Level 1

300672.2 Mathematics 1A
300673.2 Mathematics 1B
200025.2 Discrete Mathematics

Level 2

Choose two units from the level 2 units below

200030.4 Differential Equations
200028.3 Advanced Calculus
200027.2 Linear Algebra

Level 3

200193.2 Abstract Algebra
200022.3 Mathematical Modelling
200023.3 Analysis

Major - Microbiology

M3055.1

Microorganisms impact on all aspects of our lives. A microbiology major will equip students with the skills and knowledge of microbiology and molecular microbiology relevant to employment in research laboratories and industries including biotechnology companies, medical and environmental laboratories, food, wine and pharmaceutical companies, quality assurance and scientific sales. The major, which includes the study of bacteria, fungi, protists and viruses and their roles in medicine, industry and the environment, will also provide a foundation for research at Honours and postgraduate levels. (Students from Parramatta and Campbelltown will have to travel to Hawkesbury to complete some of the units in the major).

Location

Campus	Mode
Campbelltown Campus	Internal
Hawkesbury Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

Students must complete eight units, including three units at Level 3

Note: Students undertaking this major at Parramatta and Campbelltown campus need to travel to Hawkesbury to complete one or two Level 3 units.

Level 2

300936.1 Functional Proteins and Genes
300833.1 Microbiology 1
300896.1 Microbiology 2
300817.1 Molecular Biology
300847.2 Immunology

Level 3

Choose three of

300866.1 Analytical Microbiology
300826.1 Medical Microbiology
300905.1 Advanced Immunology
300883.1 Laboratory Quality Management

Major - Zoology

M3056.1

This major trains students in how to best care for and protect our animals, by covering scientific knowledge of native wildlife, companion animals, and production animals. This major will allow students to develop scientific understanding of how animals function and interact with their environment; from their ecology and evolution; to physiology and biochemistry of tissues and major organ systems, as well as down to structure and function of biomolecules and cells. On-campus animal facilities include those for reptiles, small marsupials, small rodents, horses, sheep and cattle, as well as over 1000ha of native, rural and aquatic habitat.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

Students must complete eight units as follows

Level 1

Choose two of

300802.1 Biodiversity
300816.1 Cell Biology
300813.1 Wildlife Studies

Level 2

300838.1 Comparative Physiology

Choose two of

300839.1 Ecology
300845.1 Genetics
300853.1 Animal Nutrition and Feeding
300835.1 Animal Reproduction

Level 3

300909.1 Biological Adaptation to Climate Change

Choose two of

300929.1 Aquatic Ecology
300918.1 Invertebrate Biology
300861.1 Vertebrate Biodiversity
300878.1 Animal Behaviour

Major - Food Science & Technology

M3057.1

A major in Food Science and Technology explores the science behind food, its preparation and manufacture. The program covers specialised topics in food processing, quality assurance, new product development, postharvest, packaging, microbiological and chemical analysis of foods. The program aims to develop in depth scientific understanding of processes involved in food manufacture and requirements to produce safe, nutritious and palatable food. The major prepares students for a wide range of careers in the food and beverage related industries, including food product development, quality assurance, food regulations, research and development, plus management of fresh food supply. Students seeking to be secondary Food Technology teachers are advised to also select a Sub-major in Education Studies in preparation for Master of Teaching in their fourth year of study. This program will satisfy the requirements of the NSW Institute of Teachers for first teaching areas of 'Food Technology' and 'Biology', with further teaching areas possible in 'chemistry', 'physics', or 'design and technology' depending on the electives selected.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

Standard Food Science and Technology Major

Students must complete eight units as follows

300904.1 Advanced Food Science and Technology
300871.1 Culinary Science
300915.1 Food Product Development
300859.1 Food Safety
300883.1 Laboratory Quality Management
300869.1 Postharvest
300922.1 Quality Assurance and Food Analysis

And choose one of

300866.1 Analytical Microbiology
300843.1 Forensic and Environmental Analysis

Food Science and Technology Major for Students undertaking the Education Studies Sub Major

Students must complete eight units as follows, plus be enrolled in the Education Studies Sub Major

300805.1 Food Science 1
300842.2 Food Science 2
300859.1 Food Safety
300869.1 Postharvest
300922.1 Quality Assurance and Food Analysis
300871.1 Culinary Science
300915.1 Food Product Development
300904.1 Advanced Food Science and Technology

Major - Human Nutrition

M3059.1

A major in Human Nutrition investigates healthy eating as a vital part of good health. This major offers a human nutrition specialisation for students enrolled in the Nutrition and Food Science degree. The major covers nutrition and health, with specialised studies in community nutrition, public health nutrition, human physiology, health promotion and food studies. The program aims to develop understanding of human nutrition as it applies to the various stages of life, as well as examining the development of Australian dietary practices and diet related disorders. Students will explore the role of community food systems; developing strategies for social research methods and applications in public health nutrition and health promotion. The major prepares students for careers in community nutrition, health promotion and education, or work in a range of food and nutrition related businesses, including new product development of healthy foods. Those students' seeking postgraduate studies in dietetics with the objective of becoming an accredited practising dietician should select a double major of 'Nutrition and Physiology' with the 'Human Nutrition' major and complete further studies in metabolism and advanced physiology.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

Students must complete eight units as follows

Year 2

Autumn session

300933.1 Nutrition and Health 1
300936.1 Functional Proteins and Genes

Spring session

300934.1 Nutrition and Health 2
300818.1 Introduction to Physiology

Year 3

Autumn session

300928.1 Consumer Issues in Nutrition
300871.1 Culinary Science

Spring session

300908.1 Applied Nutrition
300917.1 Global Nutrition, Food and Community

Major - Medicinal Chemistry

M3060.1

Location

Campus	Mode
Campbelltown Campus	Internal

Specialisation Structure

Note - At least 60 credit points must be at Level 3 or above (two electives/Schedule C units must be at least a Level 3 unit)

Year 2

Autumn session

300936.1 Functional Proteins and Genes
300876.1 Organic Chemistry

Please note that in 2015, 300876.1 is only on offer in Spring.

One Schedule C Unit

And one elective

Spring session

300848.1 Metabolism
300889.1 Pathological Basis of Disease

One Schedule C Unit

And one elective

Year 3

Autumn session

300891.1 Advanced Medicinal Chemistry

One Schedule C Unit

And two electives

Spring session

300893.1 Topics in Medical Science
300920.1 Pharmacological Chemistry
300906.1 Advanced Organic Chemistry

And one Schdule C Unit

Schedule C Units

Choose four of

300907.1 Advanced Inorganic Chemistry
300899.1 Inorganic Chemistry
300925.1 Advanced Analytical Chemistry

Please note that in 2015, 300899.1 Inorganic Chemistry is only on offer in Autumn.

300832.1 Analytical Chemistry
300912.1 Molecular Pharmacokinetics
300849.2 Physical Chemistry

Please note that in 2015, 300849.2 Physical Chemistry is only on offer in Autumn.

Mid Year Intake

Note - At least 60 credit points must be at Level 3 or above (two electives/Schedule C units must be at least a Level 3 unit)

Year 1

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300818.1 Introduction to Physiology
300811.1 Scientific Literacy

Autumn session

300802.1 Biodiversity
300825.2 Introduction to Anatomy

Choose one of

300800.2 Essential Chemistry 1
300808.2 Introductory Chemistry

Choose one of

300830.2 Analysis of Change
300831.2 Quantitative Thinking
300672.2 Mathematics 1A
200263.5 Biometry

Year 2

Spring session

300889.1 Pathological Basis of Disease

Two Schedule C Unit

And one elective

Autumn session

300936.1 Functional Proteins and Genes
300876.1 Organic Chemistry

And two electives

Year 3

Spring session

300848.1 Metabolism
300893.1 Topics in Medical Science
300920.1 Pharmacological Chemistry
300906.1 Advanced Organic Chemistry

Autumn session

300891.1 Advanced Medicinal Chemistry

Two Schedule C Unit

And one elective

Schedule C Units

300832.1 Analytical Chemistry

300925.1 Advanced Analytical Chemistry
300899.1 Inorganic Chemistry
300849.2 Physical Chemistry
300907.1 Advanced Inorganic Chemistry
300912.1 Molecular Pharmacokinetics

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Major - Anatomy and Physiology

M3061.1

Location

Campus	Mode
Campbelltown Campus	Internal

Specialisation Structure

Note - At least 60 credit points must be at Level 3 or above (two electives/Schedule B units must be at least a Level 3 unit)

Year 2

Autumn session

300936.1 Functional Proteins and Genes
300894.1 Anatomy of the Thorax and Abdomen

One Schedule B Unit

And one elective

Spring session

300848.1 Metabolism
300889.1 Pathological Basis of Disease
300884.1 Pharmacology

And one elective

Year 3

Autumn session

300819.1 Topics in Physiology
300851.1 Advanced Physiology

One Schedule B Unit

And one elective

Spring session

300754.3 Neuroanatomy
300893.1 Topics in Medical Science

One Schedule B Unit

And one elective

Schedule B Units

Choose three of

300905.1 Advanced Immunology
300898.2 Appendicular Skeleton
300817.1 Molecular Biology
300897.1 Anatomy of the Head and Neck
300838.1 Comparative Physiology
300927.2 Molecular Medicine
300845.1 Genetics
300820.1 Genes, Genomics and Human Health

Mid Year Intake

Year 1

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300818.1 Introduction to Physiology
300811.1 Scientific Literacy

Autumn session

300936.1 Functional Proteins and Genes
300825.2 Introduction to Anatomy

Choose one of

300800.2 Essential Chemistry 1
300808.2 Introductory Chemistry

Choose one of

300830.2 Analysis of Change
300831.2 Quantitative Thinking
300672.2 Mathematics 1A
200263.5 Biometry

Year 2

Spring session

300848.1 Metabolism
300889.1 Pathological Basis of Disease
300884.1 Pharmacology

One Schedule B Unit

Autumn session

300802.1 Biodiversity
300894.1 Anatomy of the Thorax and Abdomen

One Schedule B Unit

And one elective

Year 3

Spring session

300893.1 Topics in Medical Science
300754.3 Neuroanatomy

One Schedule B Unit

And one elective

Autumn session

300819.1 Topics in Physiology
300851.1 Advanced Physiology

One Schedule B Unit
And one elective

Schedule B Units

Choose three of

300905.1 Advanced Immunology
300898.2 Appendicular Skeleton
300817.1 Molecular Biology
300897.1 Anatomy of the Head and Neck
300838.1 Comparative Physiology
300927.2 Molecular Medicine
300845.1 Genetics
300820.1 Genes, Genomics and Human Health

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Major - Biomedical Science

M3062.1

Location

Campus	Mode
Campbelltown Campus	Internal
Hawkesbury Campus	Internal

Specialisation Structure

Note - At least 60 credit points must be at Level 3 or above (five electives/ Schedule A units must be at least a Level 3 unit)

Year 2

Autumn session

300936.1 Functional Proteins and Genes

Two Schedule A Units
And one elective

Spring session

300848.1 Metabolism
300889.1 Pathological Basis of Disease

One Schedule A Unit
And one elective

Year 3

Autumn session

Three Schedule A Units
And one elective

Spring session

300893.1 Topics in Medical Science

Two Schedule A Units
And one elective

Schedule A Units

Choose eight of

300833.1 Microbiology 1
300896.1 Microbiology 2
300845.1 Genetics
300820.1 Genes, Genomics and Human Health
300826.1 Medical Microbiology
300905.1 Advanced Immunology
300817.1 Molecular Biology
300850.1 Advanced Cell Biology
300866.1 Analytical Microbiology
300927.2 Molecular Medicine
300847.2 Immunology

Mid Year Intake

Note - At least 60 credit points must be at Level 3 or above (five electives/ Schedule A units must be at least a Level 3 unit)

Year 1

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300818.1 Introduction to Physiology
300811.1 Scientific Literacy

Autumn session

300802.1 Biodiversity
300825.2 Introduction to Anatomy

Choose one of

300800.2 Essential Chemistry 1
300808.2 Introductory Chemistry

Choose one of

300830.2 Analysis of Change
300831.2 Quantitative Thinking
300672.2 Mathematics 1A
200263.5 Biometry

Year 2

Spring session

300889.1 Pathological Basis of Disease

Three Schedule A Units

Autumn session

300936.1 Functional Proteins and Genes

Two Schedule A Units
And one elective

Year 3

Spring session

300848.1 Metabolism
300893.1 Topics in Medical Science

Two Schedule A Units

Autumn session

Four Schedule A Units

Schedule A Units

Choose eight of

300833.1 Microbiology 1
300896.1 Microbiology 2
300845.1 Genetics
300820.1 Genes, Genomics and Human Health
300905.1 Advanced Immunology
300817.1 Molecular Biology
300850.1 Advanced Cell Biology
300866.1 Analytical Microbiology
300847.2 Immunology
300927.2 Molecular Medicine
300826.1 Medical Microbiology

Mid Year Intake - Alternate pattern

Note - At least 60 credit points must be at Level 3 or above (five electives/ Schedule A units must be at least a Level 3 unit)

Year 1

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300818.1 Introduction to Physiology
300811.1 Scientific Literacy

Autumn session

300936.1 Functional Proteins and Genes
300825.2 Introduction to Anatomy

Choose one of

300800.2 Essential Chemistry 1
300808.2 Introductory Chemistry

Choose one of

300830.2 Analysis of Change
300831.2 Quantitative Thinking
300672.2 Mathematics 1A
200263.5 Biometry

Year 2

Spring session

300848.1 Metabolism
300889.1 Pathological Basis of Disease

One Schedule A Unit
And one elective

Autumn session

300802.1 Biodiversity

Two Schedule A Units
And one elective

Year 3

Spring session

300893.1 Topics in Medical Science

Three Schedule A Units

Autumn session

Two Schedule A Units
And two electives

Schedule A Units

Choose eight of

300833.1 Microbiology 1
300896.1 Microbiology 2
300845.1 Genetics
300820.1 Genes, Genomics and Human Health
300905.1 Advanced Immunology
300817.1 Molecular Biology
300850.1 Advanced Cell Biology
300866.1 Analytical Microbiology
300847.2 Immunology
300927.2 Molecular Medicine
300826.1 Medical Microbiology

Sub-major elective spaces

Elective units may be used toward obtaining an additional approved sub-major (40 credit points).

UWS offers sub-majors in a range of areas including Sustainability and Indigenous Studies.

Students can apply for an elective major or sub-major via MySR.

Major - Medicinal Chemistry

M3063.1

Location

Campus	Mode
Campbelltown Campus	Internal

Specialisation Structure

Students completing the Bachelor of Medical Science (Advanced) with a major in Medicinal Chemistry will complete the following course structure.

Note: At least 60 credit points must be at Level 3 or above (one Schedule C unit must be at least a Level 3 unit)

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300800.2 Essential Chemistry 1
300825.2 Introduction to Anatomy

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300818.1 Introduction to Physiology
300672.2 Mathematics 1A

Year 2

Autumn session

300937.1 Advanced Science Project A
300936.1 Functional Proteins and Genes

And two Schedule C Units

Spring session

300938.1 Advanced Science Project B
300848.1 Metabolism
300889.1 Pathological Basis of Disease
300876.1 Organic Chemistry

Year 3

Autumn session

300910.1 Advanced Science Project C
300891.1 Advanced Medicinal Chemistry

And two Schedule C Units

Spring session

300893.1 Topics in Medical Science
300920.1 Pharmacological Chemistry
300906.1 Advanced Organic Chemistry
300892.1 Medical Science Project

Schedule C Units

Choose four of

300907.1 Advanced Inorganic Chemistry
300899.1 Inorganic Chemistry
300925.1 Advanced Analytical Chemistry
300832.1 Analytical Chemistry
300912.1 Molecular Pharmacokinetics
300849.2 Physical Chemistry

Note: Students wishing to take Analytical Chemistry will need to adjust their pattern of electives.

Major - Anatomy and Physiology

M3064.1

Location

Campus	Mode
Campbelltown Campus	Internal

Specialisation Structure

Students completing the Bachelor of Medical Science (Advanced) with a major in Anatomy and Physiology will complete the following course structure.

Note: At least 60 credit points must be at Level 3 or above (one Schedule B unit must be at least a Level 3 unit)

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300800.2 Essential Chemistry 1
300825.2 Introduction to Anatomy

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300818.1 Introduction to Physiology
300672.2 Mathematics 1A

Year 2

Autumn session

300937.1 Advanced Science Project A
300936.1 Functional Proteins and Genes
300894.1 Anatomy of the Thorax and Abdomen

And one Schedule B Unit

Spring session

300938.1 Advanced Science Project B
300848.1 Metabolism
300889.1 Pathological Basis of Disease
300884.1 Pharmacology

Year 3

Autumn session

300910.1 Advanced Science Project C
300819.1 Topics in Physiology
300851.1 Advanced Physiology

And one Schedule B Unit

Spring session

300892.1 Medical Science Project
300754.2 Neuroanatomy
300893.1 Topics in Medical Science

And one Schedule B Unit

Schedule B Units

Choose three of

300905.1 Advanced Immunology
300898.2 Appendicular Skeleton
300817.1 Molecular Biology
300897.1 Anatomy of the Head and Neck
300838.1 Comparative Physiology
300927.2 Molecular Medicine
300845.1 Genetics
300820.1 Genes, Genomics and Human Health

Major - Biomedical Science

M3065.1

Location

Campus	Mode
Campbelltown Campus	Internal
Hawkesbury Campus	Internal

Specialisation Structure

Students completing the Bachelor of Medical Science (Advanced) with a major in Biomedical Science will complete the following course structure.

Note: At least 60 credit points must be at Level 3 or above (four Schedule A units must be at least a Level 3 unit)

Year 1

Autumn session

300802.1 Biodiversity
300811.1 Scientific Literacy
300800.2 Essential Chemistry 1
300825.2 Introduction to Anatomy

Spring session

300816.1 Cell Biology
300803.1 Essential Chemistry 2
300818.1 Introduction to Physiology
300672.2 Mathematics 1A

Year 2

Autumn session

300937.1 Advanced Science Project A
300936.1 Functional Proteins and Genes

And two Schedule A Units

Spring session

300938.1 Advanced Science Project B
300848.1 Metabolism
300889.1 Pathological Basis of Disease

And one Schedule A Unit

Year 3

Autumn session

300910.1 Advanced Science Project C

And three Schedule A Units

Spring session

300892.1 Medical Science Project
300893.1 Topics in Medical Science

And two Schedule A Units

Schedule A Units

Choose eight of

300833.1 Microbiology 1
300896.1 Microbiology 2
300845.1 Genetics
300820.1 Genes, Genomics and Human Health
300826.1 Medical Microbiology
300905.1 Advanced Immunology
300817.1 Molecular Biology
300850.1 Advanced Cell Biology
300866.1 Analytical Microbiology
300927.2 Molecular Medicine
300847.2 Immunology

Major - Climate Change

M3078.1

A factual understanding of climate, the components that go to make it up, and how climate has varied in the past, is essential for any person working in the climate change area. This unit will introduce students to the concept of climate, our understanding of how it works, and how it has changed through time. Topics in basic atmospheric science will give students a critical understanding of current environmental concerns and debates about the greenhouse effect and climate change, and the science behind greenhouse gas accounting. Students will be introduced to current atmosphere-related research at UWS and elsewhere.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

Students must complete eight units as follows

Level 1

300802.1 Biodiversity

Choose one of

300800.2 Essential Chemistry 1
300808.2 Introductory Chemistry

Level 2

300837.1 Climate Change Science
300839.1 Ecology

Choose one of

300865.1 Plant Physiology
300838.1 Comparative Physiology
300980.1 Principles of Evolution

Level 3

300909.1 Biological Adaptation to Climate Change
300856.1 Ecosystem Carbon Accounting

Choose one of

300857.1 Environmental Geochemistry
300855.1 Conservation Biology

Major - Conservation Biology

M3079.1

Conservation biology has emerged as a field of study from a synthesis of the ecological, demographic, genetic and societal risks faced by small natural populations. This major equips students with skills in fundamental biology, in the ecology of populations and communities, in population genetics and in the legal conservation framework to enable them to work in this area.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

Students must complete eight units; up to three of these units can come from level 1, and three must come from level 3.

Level 1

300802.1 Biodiversity
300816.1 Cell Biology
300813.1 Wildlife Studies
300824.1 Management of Aquatic Environments

Level 2

300839.1 Ecology
300845.1 Genetics
300836.1 Botany
300980.1 Principles of Evolution

Level 3

300855.1 Conservation Biology

And choose two of

300929.1 Aquatic Ecology
300909.1 Biological Adaptation to Climate Change
300861.1 Vertebrate Biodiversity

Major - General Biology

M3080.1

The major in General Biology gives students a broad training in biology, with the opportunity to select a program that ranges across the scale from macro- to micro- to molecular level processes. Completion of the major meets the requirements for secondary school biology teaching (post-graduate study is required to qualify as a teacher).

Location

Campus	Mode
Campbelltown Campus	Internal
Hawkesbury Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

Students must complete eight units as follows

Level 1

300802.1 Biodiversity
300816.1 Cell Biology

Choose six of the following units, including at least three units at Level 3.

Level 1

300800.2 Essential Chemistry 1
300803.1 Essential Chemistry 2

Level 2

300936.1 Functional Proteins and Genes
300848.1 Metabolism
300817.1 Molecular Biology
300847.2 Immunology
300845.1 Genetics
300833.1 Microbiology 1
300896.1 Microbiology 2
300838.1 Comparative Physiology
300839.1 Ecology
300865.1 Plant Physiology
300836.1 Botany
300980.1 Principles of Evolution
300979.1 Principles of Zoology

Level 3

300851.1 Advanced Physiology
300866.1 Analytical Microbiology
300850.1 Advanced Cell Biology
300819.1 Topics in Physiology
300855.1 Conservation Biology
300905.1 Advanced Immunology
300820.1 Genes, Genomics and Human Health
300826.1 Medical Microbiology
300927.2 Molecular Medicine

300929.1 Aquatic Ecology
300861.1 Vertebrate Biodiversity
300918.1 Invertebrate Biology
300924.1 Science Research Project
300883.1 Laboratory Quality Management
300919.1 Occupational Health and Safety

Major - Marine Biology

M3081.1

Marine environments play vital roles in providing food, water, recreation and other ecosystem services to human society, as well as providing habitat for important species that make up global biodiversity. This major will equip students with the background knowledge and training to work in marine environments, to learn skills in inquiry and problem solving, so that they can contribute beneficially to management and/or conservation of waterways and oceans and the biodiversity within them. .

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

Students must complete the following eight units

Level 1

300802.1 Biodiversity
300824.1 Management of Aquatic Environments

Level 2

Choose three of

300838.1 Comparative Physiology
300839.1 Ecology
300979.1 Principles of Zoology
300877.1 Toxicology

Level 3

300929.1 Aquatic Ecology
300909.1 Biological Adaptation to Climate Change

Choose one of

300861.1 Vertebrate Biodiversity
300924.1 Science Research Project
300870.1 Water in the Landscape

Major - Zoology

M3082.1

This major trains students in how to best care for and protect our animals, by covering scientific knowledge of native wildlife, companion animals, and production animals. This major will allow students to develop scientific understanding of how animals function and interact with their environment; from their ecology and evolution; to physiology and biochemistry of tissues and major organ systems, as well as structure and function of biomolecules and cells. On-campus animal facilities include those for reptiles, small marsupials, small rodents, horses, sheep and cattle, as well as over 1000ha of native, rural and aquatic habitats.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

Students must complete eight units as follows

Level 1

Choose two of

300802.1 Biodiversity
300816.1 Cell Biology
300813.1 Wildlife Studies

Level 2

300979.1 Principles of Zoology

Choose two of

300839.1 Ecology
300845.1 Genetics
300838.1 Comparative Physiology
300980.1 Principles of Evolution
300835.1 Animal Reproduction

Level 3

300909.1 Biological Adaptation to Climate Change

Choose two of

300929.1 Aquatic Ecology
300918.1 Invertebrate Biology
300861.1 Vertebrate Biodiversity
300878.1 Animal Behaviour

Major - Environmental Consulting

M3084.1

This major in Environmental Consulting prepares graduates for jobs in environmental consulting companies, government environmental offices, land and water management agencies or non-government organisations. The natural resources boom and growing human population in Australia have created a demand for environmental specialists to conduct and prepare environmental assessments and impact statements. This major will provide you with broad skills in fauna, flora and habitat assessments, as well as, policy and regulation associated with planning and development in Australia.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

Students must complete of the following eight units

Level 1

300813.1 Wildlife Studies
200571.4 Management Dynamics

Choose one of

300831.2 Quantitative Thinking
200263.5 Biometry

Level 2

300841.1 Environmental Regulation and Policy

Level 3

300858.1 Environmental Risk Management
300918.1 Invertebrate Biology
300861.1 Vertebrate Biodiversity

Choose one of

300924.1 Science Research Project
300914.1 Field Project 2

Major - Nutrition and Physiology

M3089.1

This major addresses the physiological and nutritional foundations for understanding the nature of food and the physiological and epidemiological relationships between food, nutrients and components of food and common diet-related diseases prevalent in Australia. The study of nutrition and human physiology incorporates knowledge of the human biology and biochemistry to understand how the body utilizes nutrients and related substances for optimal health throughout the lifecycle. This major is recommended for students seeking an in-depth understanding of diet-related health issues and are intending to work in allied or community health, education, or seeking postgraduate studies in nutrition, dietetics or public health.

Location

Campus	Mode
Bankstown Campus	External
Bankstown Campus	Internal
Campbelltown Campus	External
Campbelltown Campus	Internal
Hawkesbury Campus	Internal
Parramatta Campus	External
Parramatta Campus	Internal
Penrith Campus	External
Penrith Campus	Internal

Specialisation Structure

Students must complete the following units

Level 2

300936.1 Functional Proteins and Genes
300848.1 Metabolism
300933.1 Nutrition and Health 1
300934.1 Nutrition and Health 2

Level 3

300851.1 Advanced Physiology
300819.1 Topics in Physiology

Choose two of the following

300908.1 Applied Nutrition
300917.1 Global Nutrition, Food and Community
300928.1 Consumer Issues in Nutrition

Major - Biochemistry and Molecular Biology

M3090.1

This major will equip students with knowledge and skills in fundamental biology and chemistry, biochemistry and molecular biology to allow students to enter industrial or research-based employment in this area (biotech companies, pathology, quality assurance, university and hospital labs and scientific sales, government policy analysis). As this area has expanding knowledge and technologies, outcomes also include the ability to read, critique and evaluate emerging research with the view to becoming a life-long learner in the field. The outcomes of this major would support honours or masters level research in this area.

Location

Campus	Mode
Campbelltown Campus	Internal
Hawkesbury Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

Students must complete eight units as follows

Three units must be at Level 3

Level 1

300816.1 Cell Biology
300803.1 Essential Chemistry 2

Level 2

300936.1 Functional Proteins and Genes
300848.1 Metabolism

Choose one of the following

300817.1 Molecular Biology
300847.2 Immunology
300845.1 Genetics

Level 3

Choose three of the following

300927.2 Molecular Medicine
300820.1 Genes, Genomics and Human Health
300905.1 Advanced Immunology
300850.1 Advanced Cell Biology

Major - Therapeutic Recreation

M4000.1

Specialisation Structure

Students must complete the following eight units

400249.2 Ethical and Legal Issues in Health Care
400244.2 Introduction to Leisure and Recreation Theory
400789.3 Leisure Education Programming and Mental Health
400968.2 Professional Practice in Aged Care and Disability
400786.2 Professional Transition Project
400254.2 Therapeutic Recreation Professional Project
400246.3 Workplace Learning 1 (Therapeutic Recreation)
400252.2 Workplace Learning 2 (Community Placement)

Major - Health Promotion

M4001.1

Specialisation Structure

Students must complete the following eight units

400249.2 Ethical and Legal Issues in Health Care
400275.2 Health Planning Project
400966.2 Health Politics, Policy and Planning
400784.2 Health Promotion Practice 1
400785.2 Health Promotion Practice 2
400286.3 Injury Prevention
400786.2 Professional Transition Project
400285.2 Public Health

Major - Health Services Management

M4002.1

Specialisation Structure

Students must complete the following eight units

400249.2 Ethical and Legal Issues in Health Care
400275.2 Health Planning Project
400966.2 Health Politics, Policy and Planning
400279.3 Health Services Financial Management
400277.4 Health Services Management
400787.2 Health Services Management Practice
400788.3 Health Services Workforce Management
400786.2 Professional Transition Project

Sub-major - Education Studies

SM1067.1

The Education Studies sub-major comprises a foundation pool of units which addresses key issues in contemporary educational thinking and practice. Education has a key role to play in bridging the gap between social advantage and disadvantage, in transforming the lives of individuals and their families and building capacity within communities.

Location

Campus	Mode
Bankstown Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students must complete 40 credit points from the following units

101263.1 Education and Transformation
101663.2 Education for Sustainability
101661.2 Education in a Cosmopolitan Society
101874.3 Experiential Learning in Communities (ELC)
101259.3 Learning and Creativity
101662.1 Young People, Their Futures and Education

Sub-major - Education Studies

SM1100.1

The Education Studies Sub-major comprises units from the Learning in Context pool. These units are broadly structured for students to investigate and critique contemporary education issues and are available to all undergraduate students and compulsory for students in the Bachelor of Arts (Pathway to Teaching Secondary) and Bachelor of Science (Pathway to Teaching Secondary).

Location

Campus	Mode
Bankstown Campus	Internal
Parramatta Campus	Internal
Penrith Campus	Internal

Specialisation Structure

Students must complete 40 credit points from the following units

Learning in Context Pool

Level 1 units

102206.1 Experience-based Outdoor Education
101751.2 Contextualising Indigenous Australia (Day Mode)

If choosing a language unit, please choose only one of the following:

100056.2 Chinese 101
100057.2 Chinese 102
100085.2 Japanese 101
100086.2 Japanese 102

Level 2 units

101874.3 Experiential Learning in Communities (ELC)
101263.1 Education and Transformation
101663.2 Education for Sustainability
101259.3 Learning and Creativity
102048.1 Contemporary Childhoods

Level 3 units

101623.1 Ethical Futures
101661.2 Education in a Cosmopolitan Society
102207.1 The Brain and Learning
102210.1 Australia-Asia Education

Sub-major - Food Technology - Secondary Teaching

SM3038.1

The food technology sub-major brings together food science and nutrition with education studies to meet the graduate requirements for teaching in food technology as a second teaching area. This sub-major includes specialised studies in food processing, new food product development, nutrition, contemporary food issues, and the food marketplace relevant to the Australian food industry. The program has strong industry links, well-equipped facilities including food processing pilot plant and modern kitchen facilities.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

Students must complete four units as follows

Year 1

Spring session

300805.1 Food Science 1

Year 2

Autumn session

300842.2 Food Science 2

Choose two of

Year 2

Autumn session

300933.1 Nutrition and Health 1

Year 2

Spring session

300879.1 Experimental Foods

Year 3

Autumn session

300871.1 Culinary Science

Year 3

Spring session

300915.1 Food Product Development
300904.1 Advanced Food Science and Technology

Sub-major - Statistics

SM3039.1

This sub-major covers topics in statistics from an introductory level to exploring complex statistical techniques that are used to analyse and interpret data generated in many disciplines. Thus students contemplating honours in any discipline should seriously consider taking this sub-major as part of their undergraduate degree. It is open to all UWS students.

Location

Campus	Mode
Campbelltown Campus	Internal

Campus	Mode
Parramatta Campus	Internal

Specialisation Structure

The Statistics sub major is available to all UWS undergraduate students except those enrolled in the 3679 Bachelor of Science (Mathematical Science) course.

Students must complete four units as follows

200033.5 Applied Statistics
200037.4 Regression Analysis & Experimental Design
200038.3 Time Series and Forecasting

Choose one of

200263.5 Biometry
200032.5 Statistics for Business
300700.5 Statistical Decision Making

Sub-major - Biochemistry and Molecular Biology

SM3041.1

This sub-major will develop knowledge and skills in biochemistry and molecular biology important in industrial or research-based employment (biotech companies, pathology, quality assurance, university and hospital labs and scientific sales, government policy analysis). Students will read, critique and evaluate research so that they develop independent learning skills and the confidence needed to deal with the rapid expansion of content in this area of Biology.

Location

Campus	Mode
Campbelltown Campus	Internal
Hawkesbury Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

The Biochemistry and Molecular Biology sub major is available to all UWS undergraduate students except those enrolled in the Biochemistry and Molecular Biology Major.

Students must complete four units as follows

Level 2

300936.1 Functional Proteins and Genes
300848.1 Metabolism
300817.1 Molecular Biology

Level 3

Choose one of

300927.2 Molecular Medicine
300820.1 Genes, Genomics and Human Health

Sub-major - Conservation Biology

SM3042.1

Conservation biology has emerged as a field of study from a synthesis of the ecological, demographic, genetic and societal risks faced by small natural populations. This submajor equips students with skills in fundamental biology, in the ecology of populations and communities, in population genetics and in the legal conservation framework to enable them to work in this area.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

The Conservation Biology sub major is available to all UWS undergraduate students except those enrolled in the Conservation Biology Major

Students must complete four units as follows

Level 1

Choose one of

300802.1 Biodiversity
300813.1 Wildlife Studies

Level 2

300839.1 Ecology
300845.1 Genetics

Level 3

300855.1 Conservation Biology

Sub-major - Microbiology

SM3044.1

Microorganisms impact on all aspects of our lives. A microbiology submajor will equip students with the skills and knowledge of microbiology and molecular microbiology relevant to employment in research laboratories and industries including biotechnology companies, medical and environmental laboratories, food, wine and pharmaceutical companies, quality assurance and scientific sales.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

The Microbiology sub major is available to all UWS undergraduate students except those enrolled in the Microbiology Major.

Students must complete four units as follows

Level 2

300833.1 Microbiology 1
300896.1 Microbiology 2

Level 3

300866.1 Analytical Microbiology
300826.1 Medical Microbiology

Sub-major - Zoology

SM3045.1

This submajor will allow students to develop scientific understanding of how animals function and interact with their environment; from their ecology and evolution; to physiology and biochemistry of tissues and major organ systems, as well as down to structure and function of biomolecules and cells.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

The Zoology sub major is available to all UWS undergraduate students except those enrolled in the Zoology Major.

Students must complete four units as follows

Level 1

300813.1 Wildlife Studies

Level 2

300834.1 Animal Health and Welfare

Level 3

Choose two of

300878.1 Animal Behaviour
300855.1 Conservation Biology
300918.1 Invertebrate Biology
300861.1 Vertebrate Biodiversity

Sub-major - Sustainable Environmental Management

SM3046.1

Solution to environmental problems requires both a technical/scientific 'fix', and an agreed social implementation, or management 'fix'. This submajor covers the essentials of environmental management as an academic discipline, giving students knowledge and skills in the social, legislative and planning frameworks within which environmental practitioners must work to implement solutions to environmental problems.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

The Sustainable Environmental Management sub major is available to all UWS undergraduate students except those enrolled in the Environmental Management Major.

Students must complete four units as follows

Level 2

300840.1 Environmental Planning and Climate Change
300841.1 Environmental Regulation and Policy

Level 3

300858.1 Environmental Risk Management
300860.1 Urban Environment

Sub-major - Climate Change

SM3048.1

One of the major problems society faces is how to move to an economy and way of life that is sustainable for our planet. This submajor equips students with the skills to address the scientific issues behind global climate change; what makes it happen, and how we can reduce or mitigate its impacts on the earth and its biota.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

The Climate Change sub major is available to all UWS undergraduate students except those enrolled in the Climate Change Major.

Students must complete four units as follows

Level 2

300837.1 Climate Change Science
300840.1 Environmental Planning and Climate Change

Level 3

300909.1 Biological Adaptation to Climate Change
300856.1 Ecosystem Carbon Accounting

Sub-major - Immunology and Cell Biology

SM3049.1

This sub-major will equip students with knowledge and skills in immunology, cell and molecular biology to allow students to enter industrial or research-based employment in this area (biotech companies, pathology, quality assurance, university and hospital labs and scientific sales, government policy analysis). As this area has expanding knowledge and technologies, outcomes also include the ability to read, critique and evaluate emerging research with the view to becoming a life-long learner in the field.

Location

Campus	Mode
Campbelltown Campus	Internal
Hawkesbury Campus	Internal
Parramatta Campus	Internal

Specialisation Structure

Students must complete four units as follows

Level 2

300847.2 Immunology
300817.1 Molecular Biology

Level 3

300850.1 Advanced Cell Biology
300905.1 Advanced Immunology

Sub-major - Physics

SM3050.1

The physics sub-major is designed to provide the basic curriculum for students who have an interest in physics while intending to pursue a degree in some other field. The sub-major offers units that practicing physicists would normally be expected to have studied. Consequently, those who already have in mind a career in teaching,research, industry or education will graduate with a basic, solid preparation in Physics.

Location

Campus	Mode
Campbelltown Campus	Internal

Specialisation Structure

The Physics sub major is available to all UWS undergraduate students. These are core units from 3674 Bachelor of Medical Science (Nanotechnology).

Students must complete four units as follows

Level 1

300828.1 Physics 1
300829.1 Physics 2

Level 2

300930.1 Classical Physics and Advanced Technologies

Level 3

300923.1 Quantum Physics

Sub-major - Aquatic Environments

SM3062.1

Aquatic and marine environments play vital roles in providing food, water, recreation and other ecosystem services to human society, as well as providing habitat for important species that make up global biodiversity. This submajor will equip students with the background knowledge and training to work in aquatic and marine environments, assess water quality to learn skills in inquiry and problem solving and understand legislation on water, so that they can contribute beneficially to management and/ or conservation of waterways and oceans and the biodiversity within them.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

The Aquatic Environments sub major is available to all UWS undergraduate students except those enrolled in the Aquatic Biology Major

Students must complete the following four units

Level 1

300824.1 Management of Aquatic Environments
300814.1 Water Quality Assessment and Management

Level 3

300978.1 Marine and Aquatic Ecology
300929.1 Aquatic Ecology
300870.1 Water in the Landscape

Sub-major - Zoology

SM3063.1

This submajor will allow students to develop scientific understanding of how animals function and interact with their environment; from their ecology and evolution; to physiology and biochemistry of tissues and major organ

systems, as well as structure and function of biomolecules and cells.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

Students must complete four units as follows

Level 1

300813.1 Wildlife Studies

Level 2

300980.1 Principles of Evolution

Level 3

Choose two of

300878.1 Animal Behaviour
300855.1 Conservation Biology
300918.1 Invertebrate Biology
300861.1 Vertebrate Biodiversity

Sub-major - Environmental Forensics

SM3064.1

This sub-major in Environmental Forensics consolidates knowledge from the disciplines of Forensic Science and Environmental Science, to provide students with the capacity to performed forensic investigations into environmental incidents and spills. The sub-major strongly draws on Forensic Science concepts, including evidence integrity and continuity as well as the concept of identification, and applies them to environmental crime. After completion of the sub-major, students will be able to collect, analyse and interpret data, and will be able to describe how the legal context influences the manner in which all these sequential steps of an investigation are performed.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

Students must complete four units as follows

300806.1 Forensic Science
300843.1 Forensic and Environmental Analysis
300981.1 Environmental Forensic Investigations

Choose one of

300883.1 Laboratory Quality Management
300857.1 Environmental Geochemistry

Sub-major - Environmental Management

SM3079.1

Solution to environmental problems requires both a technical/scientific ‘fix’, and an agreed social implementation, or management 'fix'. This submajor covers environmental management as an academic discipline, giving students knowledge and skills in the social, legislative and planning frameworks within which environmental practitioners must work to implement solutions to environmental problems.

Location

Campus	Mode
Hawkesbury Campus	Internal

Specialisation Structure

Students must complete four units as follows

Level 2

Choose two of the following

300840.1 Environmental Planning and Climate Change
101878.1 Indigenous Landscapes
300875.1 Landuse and the Environment
300841.1 Environmental Regulation and Policy

Level 3

Choose two of the following

300858.1 Environmental Risk Management
300860.1 Urban Environment

GRADUATE RESEARCH SCHOOL

Bachelor of Research Studies/Master of Research

8083.1

The Bachelor of Research Studies/Master of Research is an internationally recognised qualification which will allow students to be globally mobile in advancing their research education, employment opportunities and pathways to further study. It is designed to increase students' preparedness for PhD studies and ultimately for research-orientated careers.

The first year comprises advanced Bachelor level studies exposing students to comprehensive research methodology and advanced disciplinary coursework. Students will develop a research proposal, improve their academic literacy skills and engage with issues associated with research ethics and integrity. In the second year students will undertake a supervised year of higher degree research and produce a Master's thesis. The second year also includes a series of workshops and seminars designed to enhance students' research and professional capabilities.

Further information about the Master of Research can be found on the Future Students Research Studies pages

Study Mode

Two years full-time or four years part-time

Location

Campus	Attendance	Mode
Bankstown Campus	Full Time	Internal
Bankstown Campus	Part Time	Internal
Campbelltown Campus	Full Time	Internal
Campbelltown Campus	Part Time	Internal
Hawkesbury Campus	Full Time	Internal
Hawkesbury Campus	Part Time	Internal
Parramatta Campus	Full Time	Internal
Parramatta Campus	Part Time	Internal
Penrith Campus	Full Time	Internal
Penrith Campus	Part Time	Internal

Admission

Admission is determined by the following criteria being met:

- A Bachelor's degree or a Master's degree (with a research component);

- Achievement of a threshold Admission Average Mark (AAM) equal to or above the minimum of 65; and

- A statement that outlines a tentative research area.

Additionally for International students an English proficiency requirement of IELTS 6.5 overall (minimum 6.0 in each band) or equivalent.

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and UWS

Further information for International students can be found on the UWS International website.

Course Structure

Year 1 of this course will also be studied by International students enrolled in 8084 Master of Research (High Cost) and 8085 Master of Research (Low Cost).

After completion of Year 1, domestic students will be transferred to either 8084 Master of Research (High Cost) or 8085 Master of Research (Low Cost), depending on their research discipline area.

Qualification for the award of Master of Research requires the successful completion of 160 credit points. All students will complete 80 credit points of coursework units and 80 credit points of higher degree by research.

All students must enrol in and complete the 40 credit points of prescribed Core units.

Core units

800166.1	Research Design 1: Theories of Enquiry
800167.1	Research Literacies
800168.1	Research Fields
800169.1	Research Design 2: Practices of Research

Students must also complete

- 40 credit points of discipline-specific Specialisation units (30 credit points within their discipline area and 10 credit points from the other area). The two specialisation discipline areas are Humanities, Arts and Social Sciences (HASS) and Science, Technology, Engineering and Mathematics (STEM), as shown below.

- 80 credit points of higher degree research.

Humanities, Arts and Social Sciences (HASS) Specialisation

Please note: units will be offered subject to demand and availability

102152.1	Social Ecology
102160.1	Education Policy, Practice and Global Knowledge Co-construction
102299.1	Text, Media and Memory
102298.1	The Cutting Edge: Advanced Studies in Humanities and Communication Arts
800174.1	Economies and Ecologies
102295.1	Space, Place and the Field
102158.1	Learning and Teaching in Challenging Contexts
800171.1	Learning and Processing Human Language
102179.1	Theories of the Social
102180.1	Translation from Theory and Research to Policy
102176.1	Theories of Difference and Diversity

Please be advised additional units will be added to this list once finalised

Science, Technology, Engineering & Mathematics (STEM) Specialisation

Please note: units will be offered subject to demand and availability

301024.1	Advanced Numerical Methods in Engineering
301002.1	Specialised Software Applications
301003.1	Sustainable Systems
200411.2	Advanced Topics in Mathematics
301044.1	Data Science
800171.1	Learning and Processing Human Language
800172.1	Quantitative Methods in Neuroscience
800173.1	Cognitive Science: Research and Application
401162.1	Experimental Design and Analysis (PG)
401085.1	Scholarship for Practice Change in Health Care
400975.1	Ethics in Health Research
800170.1	Ecosystems in a Changing World
301037.1	Scientific Informatics
401164.1	Transferable Research Skills
401076.1	Introduction to Epidemiology
400200.2	Applied Nursing Research

Please be advised additional units will be added to this list once finalised

Units

301024.1 Advanced Numerical Methods in Engineering

Credit Points 10 **Level** 7

Assumed Knowledge

Students should have prior knowledge of strain, stress and deflection analysis of simple structures as well as knowledge of energy principle for structural analysis.

Special Requirements

Students must be enrolled in a postgraduate course

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The finite element method is an essential tool for the analysis and design of machine parts and civil engineering structures. The objective of this unit is to introduce the principles of finite element method and the applications of one, two and three dimensional elements in solving various engineering problems.

200411.2 Advanced Topics in Mathematics

Credit Points 30 **Level** 5

Special Requirements

Students must be enrolled in a Bachelor Honours course, the Bachelor of Research Studies/Master of Research or the Master of Research.

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Advanced Topics in Mathematics is an integral part of the Bachelor of Science (Honours) course work program. It is structured in such a way that there are extensive links with the other components in the program (Honours Thesis). In undertaking and completing tasks associated with this component the student will be working toward the ultimate goal of completion of the Thesis document. Successful completion of the Advanced Topics in Mathematics Program will allow development of skills, knowledge and a way of thinking to assist in the learning of mathematics/ statistics, which will help in the production of the thesis. In this program students will be given the opportunity to present work in assignments and examinations.

400200.2 Applied Nursing Research

Credit Points 10 **Level** 7

Assumed Knowledge

A basic knowledge of research methods at undergraduate level or equivalent.

Special Requirements

Students must be enrolled in a postgraduate course.

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in 2015, this unit is replaced by 401167 - Applied Research in Health Care. Research is a necessary undertaking toward the continued development of nursing knowledge as well as personal professional development. The aim of this unit is to both broaden and deepen students' understanding of research methods and to extend their ability to discuss, appraise the work of others and participate in their own research.

800173.1 Cognitive Science: Research and Application

Credit Points 10 **Level** 7

Assumed Knowledge

Master of Research core units: Research Design 1, Research Literacies or equivalent

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Cognitive science is the interdisciplinary scientific investigation of the mind. Contemporary research in cognitive science conducted by members of the MARCS Institute forms the core of the unit. Research areas to be addressed: plasticity and learning; action and coordination; nonverbal communication; and ageing and cognition. Examples of research questions: Can learning be unconscious? What mechanisms enable interpersonal coordination as seen in music and dance ensembles? Why is it that music elicits strong emotions? How does attention influence perception? How does conditioning explain human preferences? Does social facilitation apply to humans interacting with robots? In what way does ageing impact upon decision making? Applications to the arts, education, health, aging, design, human-machine interaction and artificial intelligence will be discussed.

301044.1 Data Science

Credit Points 10 **Level** 7

Assumed Knowledge

Basic Statistics, Computer Programming

Prerequisite

301046.1 Big Data (PG)

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The explosion of data in the internet age opens up new possibilities for agencies and business to better serve and market to its customers. To take full advantage of these opportunities requires the ability to consolidate, manage and extract information from very large diverse data sets. In science, data sets are growing rapidly, with projects routinely generating terabytes of data. In this unit we examine the software tools and analytic methods that underpin a successful Data Science Project and gain experience in big data analytics.

800174.1 Economies and Ecologies

Credit Points 10 **Level** 7

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This unit examines how the economy is being reclaimed as a space of political decision in the Anthropocene, the new geological epoch in which human activity is having global impact on the Earth's ecosystems. It critically explores how different ways of thinking about economy shape the worlds we inhabit. It analyses contemporary examples of economic experimentation and human-non-human assemblages that are making 'other worlds' possible. It explores connections between ecological and economic thinking and asks how

our conception of the economy and subjectivity changes when we consider the needs of other species as well as our own.

800170.1 Ecosystems in a Changing World

Credit Points 10 **Level** 7

Assumed Knowledge

A Bachelor of Science in Biology, Environmental Science, or Agricultural Science, with some background in plant science and ecology.

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Natural and managed ecosystems on our planet are experiencing a rapidly changing environment as a consequence of changing patterns of land and resource use, loss of biodiversity, altered atmospheric composition and anthropogenic climate change. This unit will introduce students to ecosystem concepts in the context of ecological and evolutionary responses to global change. Students will obtain practical experience in quantitative analysis of carbon, nutrient, water and energy budgets, and explore the consequences of global change for ecosystem services and biodiversity over a range of spatial and temporal scales. Teaching will be led by HIE staff with expertise in ecosystem responses to environmental change, soil microbial contributions to ecosystem function and the impacts of environmental change on plants, animals and their interactions.

102160.1 Education Policy, Practice and Global Knowledge Co-construction

Credit Points 10 **Level** 7

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This unit examines a range of inter/national policies and practices informed by the new spirit of capitalism that are impacting on contemporary education, and what this means for local/global knowledge co-construction. Consideration is given to the use of international tests as benchmarks, identification of 'best practice' and claims about evidence-based research in the redesign of education in Australia and elsewhere. Students will develop capabilities to use a new generation of conceptual tools that will enable them to engage through corrective and transformative critiques with inter/nationally driven arguments for curriculum and pedagogical change in the early childhood and school sectors, vocational and higher education.

400975.1 Ethics in Health Research

Credit Points 10 **Level** 7

Special Requirements

Students must be enrolled in a postgraduate course.

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This unit equips students to explore ethical issues impacting on the conduct of research in the health setting. Students will critically explore ethical issues and their implications in health research, understand the process of gaining Human Research Ethics Approval for research, gain practical experience of developing an ethically sound research plan and application for human ethics approval.

401162.1 Experimental Design and Analysis (PG)

Credit Points 10 **Level** 7

Assumed Knowledge

Students are to have successfully completed an undergraduate degree in a related discipline

Special Requirements

The supervisor must be research active and have sufficient funding and resources for this project and students are expected to supply protective clothing appropriate for laboratory and/or fieldwork studies.

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This elective unit will develop research competencies for students in health, medical, biomedical and natural sciences, enabling these students to enhance their understanding of research by attaining specific research goal/s that will contribute to the completion of a confirmation of candidature (COC) as part of the Masters of Research. In consultation with their supervisory panel, students will be expected to design and execute a small or pilot research project and to then analyse and present results obtained in this project. The skills acquired in Experimental Design and Analysis will provide a firm foundation in the experimental and research methods required by the student for their research project in the second year of the Masters of Research. The skills acquired in this unit will be enhanced in the unit Advanced Research Skills.

401076.1 Introduction to Epidemiology

Credit Points 10 **Level** 7

Special Requirements

Students must be enrolled in a postgraduate course

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Epidemiology is the study of the distribution and determinants of disease and other health-related conditions in populations, and the application of this study to the control of health problems. Epidemiology encompasses a broad range of activities fundamental to the health sciences. The course is aimed to equip students with the ability to understand and critically appraise evidence from the health sciences used in the formulation of clinical interventions, assessments of population disease burden, and development of health policy. Students will be taught the fundamental concepts and principles of epidemiology and will be given the opportunities through exercises and tutorials to apply these concepts and principles to case studies from current epidemiological research and practice.

800171.1 Learning and Processing Human Language

Credit Points 10 **Level** 7

Assumed Knowledge

Master of Research core units: Research Design 1, Research Literacies or equivalent

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How do humans learn and process language, in its spoken, gestural, and written forms? This unit will equip students with theoretical foundations and practical understandings of how to read and conduct research in this area. Topics may include research areas such as language acquisition, language use and communication, word recognition, reading development and disorders, speech perception and production. In addition, a review of data collection and analysis techniques will be provided. The unit will include lecture and laboratory experimental work. The unit will be focused on research currently conducted by members of the MARCS Institute.

102158.1 Learning and Teaching in Challenging Contexts

Credit Points 10 **Level** 7

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This unit involves the study of pedagogy in contexts regarded as challenging. The main focus will usually be on the contexts of school and early childhood, but alternative sites of education will also be studied as appropriate. The definition of a challenging context will be considered with an emphasis on contexts of poverty. The unit explores engaging pedagogies and unit will investigate specific dilemmas for education. The unit will be structured around dilemmas and specific provocations.

800172.1 Quantitative Methods in Neuroscience

Credit Points 10 **Level** 7

Assumed Knowledge

Students should have at least background/undergraduate knowledge in one or more of the following: mathematics, biology, chemistry, physics, physiology, electronics or similar

.....

A multidisciplinary team will provide an introduction to several aspects of neuroscience including cellular, computational, behavioural and biomedical neuroscience. The program will provide a strong foundation in modern neuroscience for those wishing to pursue further independent research in the field. With a focus on real-world neuroscience research, topics include introductory biology, computational modelling, biosignal acquisition, signal processing and data mining. The unit will include lecture and laboratory work.

800166.1 Research Design 1: Theories of Enquiry

Credit Points 10 **Level** 5

Special Requirements

Students must be enrolled in 8083: Bachelor of Research Studies/Master of Research

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This unit is on offer at the Parramatta City campus. This unit examines research methodology, philosophies of social sciences and science, and considers how they inform research. The student will acquire advanced disciplinary understanding and awareness of how research is carried out. It seeks to develop students' understanding of the contexts in which quantitative, qualitative, critical inquiry, observation-driven investigations and practice based research can be undertaken and the abilities to analyse, conduct, and evaluate these forms of research. Upon completion of the unit the student will be able to demonstrate competence in method literacies as well as the application of research skills.

800169.1 Research Design 2: Practices of Research

Credit Points 10 **Level** 5

Prerequisite

800166.1 Research Design 1: Theories of Enquiry

Special Requirements

Students must be enrolled in 8083 Bachelor of Research Studies/Master of Research

.....

This unit is on offer at the Parramatta City campus. This unit builds upon Research Design 1: Theories of Enquiry and will focus on particular issues relating to the student's project area. As such this unit will further examine the steps involved in generating, analysing, and critically evaluating information, perspectives, theories and sources of data relevant to the student's disciplinary field. Students will broaden their understanding of the ethics of social and scientific research and this knowledge will underpin the design and development of a research proposal as well as the proposal's presentation.

800168.1 Research Fields

Credit Points 10 **Level** 5

Special Requirements

Students must be enrolled in course 8083 Bachelor of Research Studies/Master of Research

.....

This unit is on offer at the Parramatta City campus. Each School and Institute within the University has developed a specialist core unit designed to orient students to research in its relevant disciplines. These units interact with the three other core units within the Master of Research: Research Design 1: Theories of Enquiry, Research Literacies and Research Design 2: Practices of Research to provide students with opportunities to develop foundational skills and knowledge in the student's relevant area of research.

800167.1 Research Literacies

Credit Points 10 **Level** 5

Special Requirements

Students must be enrolled in 8083:Bachelor of Research Studies/Master of Research

.....

This unit is on offer at the Parramatta City campus. This unit aims to help students become effective communicators in academic and professional settings. It will further develop students' abilities in critical analysis, reading and writing. Upon completion of the unit candidates will have also developed the ability to translate their research knowledge

across a variety of settings both within and outside of the University sector.

401085.1 Scholarship for Practice Change in Health Care

Credit Points 10 **Level** 7

Equivalent Units

400807 - Transforming Nursing Practice

Special Requirements

Students must be enrolled in a postgraduate course, and havesuccessfully completed 60 credit points at Level 7. Students must have access to the internet and a computer.

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The transformation of practice in healthcare is facilitated when information about creative and innovative practice change and development is documented, disseminated and critiqued through professional channels such as peer reviewed journals, conference papers, discussion papers or project reports. In this unit students will be provided with an opportunity to produce a scholarly piece of work that will disseminate information about transforming practice and improving patient care. The unit aims to enhance scholarly communication skills, provide a vehicle for demonstrating leadership by informing the health professions of innovative solutions for practice change.

301037.1 Scientific Informatics

Credit Points 10 **Level** 7

Assumed Knowledge

Basic programming knowledge.

Special Requirements

All required equipment will be available through School of Computing, Engineering & Mathematics computer labs

.....

This unit aims to provide training for Research Masters in the computational techniques that are integral to much of modern scientific research. The unit includes a number of options of which 6 are to be selected. While these options are expected to be relevant to the student's research field, all of them are designed to provide transferable skills in this topic, and to use a common set of tools, building computing skills for the student's future.

102152.1 Social Ecology

Credit Points 10 **Level** 7

Equivalent Units

101654 - Researching Social Ecology

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This unit focuses on learning in the context of social-ecological understanding. It asserts that ecological sustainability is a consequence of the understanding and enactment of social-ecological relationships. In this regard 'social ecology' describes a field of understanding while 'sustainability' describes praxis in a social-ecological context. Both experience and the understanding of experience – learning- are subject matter. This study is undertaken through reference to ecological systems of understandings in the context of challenges to that understanding. It is grounded in reference to learning, change, creativity, culture, politics and the physical environment. The unit introduces key theorists and invites students to examine their personal relationship to social-ecological learning.

102295.1 Space, Place and the Field

Credit Points 10 **Level** 7

Assumed Knowledge

Undergraduate degree in the Social Sciences or equivalent.

Special Requirements

Students must be enrolled in a postgraduate course.

.....

This unit explores the relevance and application of the 'spatial turn' across social sciences and humanities disciplines. It examines various ways of thinking spatially, theorizing processes that shape urban space, and researching in place. Through concrete engagements with Sydney as a living laboratory it explores how the spatial turn adds to and counters dominant ways of thinking that privilege temporality or deep structure. Space, Place and the Field is analysed at varying scales, including from bodies to species, streets to cities, interpersonal to macro politics, drawing on the wealth of social, cultural, economic and environmental studies of Sydney.

301002.1 Specialised Software Applications

Credit Points 10 **Level** 7

Equivalent Units

300513 - Engineering Software Applications

Special Requirements

Students must be enrolled in a postgraduate course

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This unit offers several streams of practical applications in engineering and industrial design software. Students get to choose a software application stream depending on their key program. Lectures and assignments are delivered online and are enhanced by face to face contact with stream coordinators. Emphasis is placed on teaching students practical software applications skills relevant to industry needs.

301003.1 Sustainable Systems

Credit Points 10 **Level** 7

Special Requirements

Students must be enrolled in a postgraduate course

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This unit seeks to teach the essential tools available to achieve environmental sustainability in various engineering, construction, industrial design professional settings. The unit will particularly focus on the application of the tools and exploration of Australian regulatory and sustainable development practices.

102299.1 Text, Media and Memory

Credit Points 10 **Level** 7

Special Requirements

Student must be enrolled in the Bachelor of Research Studies/Master of Research or Master of Research.

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This unit explores how the digital environment is profoundly changing the way we write, record, communicate and remember. Students will be encouraged to think critically about the possibilities that digital resources and methods offer interdisciplinary humanities research, including the implications of using new media formats for compiling, storing and sharing cultural and social data. The unit begins by considering the influence of earlier media, such as photography and film, on literary, historical, communication and cultural studies, so that digital innovations can be understood in a broader context. Reflecting on examples drawn from around the world, with a focus on Australia, students survey the latest digital formats, genres and knowledge practices, ranging from the personal and experimental to the institutional. These are discussed in the context of contemporary issues in areas such as digital identity and privacy, interactivity and simulation, virtual environments and the semantic web, online communities and crowdsourcing, GIS, e-research and cyberinfrastructure.

102298.1 The Cutting Edge: Advanced Studies in Humanities and Communication Arts

Credit Points 10 **Level** 7

Special Requirements

Must be enrolled in the Bachelor of Research Studies/ Master of Research or Master of Research.

.....

The School of Humanities and Communication Arts teaches across a range of disciplines including Design, Music, Creative Arts, Communications and Media, Languages and Linguistics, Cultural and Social Analysis, Philosophy, Literary Studies, History and Political Thought, International Relations and Asian Studies, Indigenous Studies. This shell unit provides advanced academic training, advanced knowledge and intellectual development in the student's academic discipline by focusing on current debates in selected fields of study. The content of this unit will change according to fields of research represented in the cohort of each year, the issues of current concern in the discipline streams taught, and staff expertise. It will be taught in streamed, parallel seminars organised by broadly defined disciplinary grouping.

102176.1 Theories of Difference and Diversity

Credit Points 10 **Level** 7

Assumed Knowledge

Undergraduate degree in the Social Sciences or equivalent.

Special Requirements

Students must be enrolled in a postgraduate course.

.....

This unit will introduce students at post-graduate level to contemporary theories and concepts of difference and diversity. The unit will particularly examine feminism, post-structuralism, new materialism, queer theory and critical realism. It will also address specific concepts such as inequality, human rights, freedom and marginalisation. It will apply these theories and concepts to investigations of contemporary social issues and debates related to race, disability, ethnicity, sexuality, gender and other categories of individual identity and collective belonging. The unit will provide a strong theoretical base to the work that students have undertaken in the unit Theories for Critical Practice, and inform the work to be undertaken in the other units in this specialisation.

102179.1 Theories of the Social

Credit Points 10 **Level** 7

Assumed Knowledge

Undergraduate degree in the Social Sciences or equivalent.

Equivalent Units

101888 - Theories for Critical Practice, 400585 Theories of the Social

Special Requirements

Students must be enrolled in a postgraduate course.

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Social theories that inform and provide critical perspectives upon a range of disciplines and professions are examined in this unit. Students reflect upon and examine the relationships between theory, research, social practices within disciplinary areas and fields of practice by critiquing the deployment of such key constructs as: subjectivity, agency and identity; power and resistance; class, economy and consumption; social change; globalisation and nationhood; gender and sexuality; race and colonisation; governmentality and social discipline; mobilities and place. Students consider the social, political and discursive processes through which theories are made and applied, and how theories limit and create possibilities for research and practice.

401164.1 Transferable Research Skills

Credit Points 10 **Level** 7

Assumed Knowledge

Students will have completed an undergraduate degree in a related discipline area

Special Requirements

Active researcher on the graduate supervisory register is required to supervise students. Students will be required to supply appropriate protective clothing for laboratory or fieldwork training.

.....

This unit is an elective unit as part of the Master of Research and provides training in essential skills for research students in the health, medical, biomedical and natural sciences. Students will select two modules that will provide experience in advanced techniques and methodologies directly relevant to a specific area of

research. It is expected that this unit, together with the unit Experimental Design and Analysis, will provide students in the health, medical, biomedical and natural sciences with a solid foundation before commencing the research project in the second year of the Master of Research degree.

102180.1 Translation from Theory and Research to Policy

Credit Points 10 **Level** 7

Prerequisite

102175.1 Research in the Social Sciences AND **102179.1** Theories of the Social

Special Requirements

This unit is only available to Postgraduate students: the pre-requisite does not apply to students enrolled in 8083 Bachelor of Research Studies/Master of Research or 8084/8085 Master of Research.

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The focus of study in this unit is on policy-making and implementation and the place of theory and research in policy formation. In the first part of the unit students explore the nature of public policy – addressing constructs of policy and policy-making and approaches to analysing public policy. The political and social practices of policy-making and implementation in Australia are contextualised and examined at the local, national and global levels. The second part of the unit takes examples of policy-making in the field of social sciences and examines the role of theory and research in the problematisation of issues and identification of solutions. The identification of competing interests, relations of power and key players in understanding, analysing and responding to policy and its outcomes will be undertaken.

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