

# DIPLOMA IN SCIENCE/ BACHELOR OF SCIENCE (6043)

**Approved Abbreviation:** DipSc/BSc

**Western Sydney University Program Code:** 6043

**AQF Level:** 7

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**CRICOS Code:** 096968E

## Program Status:

This program applies to students who commenced in 2022 or later.

Students should follow the program structure for the session start date relevant to the year they commenced.

For Commencement Year 2020 to 2021 - please refer to:

6043.1 Diploma in Science/Bachelor of Science (<http://handbook.westernsydney.edu.au/hbook/course.aspx?course=6043.1>)

Science asks questions about how the natural world works and the impact of humans at its interface. It does so in a systematic, yet rigorously creative way based on inquiry and evidence. A Bachelor of Science will prepare you to take part in this process of inquiry, by both contributing to it and by using scientific knowledge to solve current problems in broad settings. Students will learn core concepts and skills 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 this degree and select from a range of scientific disciplines with the option of expanding learning into other areas outside of science.

Students choosing MT3031 Environmental Health testamur major must complete a compulsory work placement.

All students must complete 60 credit points of study at Level 3 to meet course requirements. Depending on the major selected, students may need to select at least 10 credit points of elective study at Level 3 to meet this requirement.

Students need to note that different majors are offered on different campuses, and not all majors will be offered at every campus.

The first year of this program is delivered by Western Sydney University The College as an agent of Western Sydney University via extended face-to-face hours in smaller learning environments. A Diploma in Science exit point is also available at the end of the first year of the program.

For more information on Western Sydney University, The College, please refer to their web site.

Western Sydney University, The College (<https://www.westernsydney.edu.au/future/study/application-pathways/the-college.html>)

## Early Exit

Students may exit this program on completion of 90 credit points with a 7084 Diploma in Science (exit only) (<https://hbook.westernsydney.edu.au/archives/2023-2024/programs/diploma-science/>)

[hbook.westernsydney.edu.au/archives/2023-2024/programs/diploma-science/](https://hbook.westernsydney.edu.au/archives/2023-2024/programs/diploma-science/))

## Study Mode

Three years full-time or six years part-time

## Program Advice

For program advice during your first year of study, please contact The College: College Program Enquiries (<https://directory.westernsydney.edu.au/search/contains/adminapp/>)

For program advice during your second and subsequent years, please contact: [science@westernsydney.edu.au](mailto:science@westernsydney.edu.au)

Prospective students should visit the following websites for general enquiries about this program.

Enquire about this program (<https://enquiry.westernsydney.edu.au/courseenquiry/>) | Local Admission (<https://www.westernsydney.edu.au/future/>) | International Admission (<https://www.westernsydney.edu.au/international/home/apply/admissions/>) |

## Location

Campus	Attendance	Mode	Advice
The College - Nirimba Education Precinct <sup>1</sup>	Full Time	Internal	See above
Campbelltown Campus <sup>2</sup>	Full Time	Internal	See above
Campbelltown Campus	Part Time	Internal	See above
Hawkesbury Campus <sup>2</sup>	Full Time	Internal	See above
Hawkesbury Campus	Part Time	Internal	See above
Parramatta Campus - Victoria Road <sup>2</sup>	Full Time	Internal	See above
Parramatta Campus - Victoria Road	Part Time	Internal	See above

<sup>1</sup> Students will study at WSU The College Nirimba campus in their first year of study.

<sup>2</sup> From second year onwards, students will study at either Campbelltown, Hawkesbury or Parramatta (Victoria Rd) campus.

## Work Integrated Learning

Western Sydney University seeks to enhance student learning experiences by enabling students to engage in the culture, expectations and practices of their profession or discipline. This program includes a placement or other community-based unpaid practical experience opportunities.

Students who select T076 Environmental Health testamur major must complete a compulsory work placement. Please contact the Program Advisor listed above for information.

Work integrated learning is a component of many subjects in the core of the course and testamur majors. Additionally, students will be allocated to or, depending on the testamur major selected, may choose one of three specific work integrated learning subjects.

The first of these, *Complex Case Studies in Science*, is designed to provide students with opportunities for personal development,

industry and civic engagement and to develop career readiness. The subject assures that students can critically analyse and logically argue complex scientific issues whilst taking into account multiple competing perspectives and builds on employability and communication skills developed in earlier subjects.

Complex Forensic Studies is the second specific work integrated learning subject. Students in MT 3022 Forensic Science will undertake Complex Forensic Studies which assures similar skills to those in Complex Case Studies but in a specific forensic science context.

In the third specific work integrated learning subject, *Work Internship for Science Professionals*, students undertake an industry placement. This subject is compulsory for students studying MT3031 Environmental Health to meet accreditation requirements. The placement will allow students to observe and develop professional skills and behaviour and integrate theoretical and practical science knowledge and conventions into a real-world setting. Student placements are unpaid and are undertaken in accordance with the requirements of Western Sydney University's Placement Policy (<https://policies.westernsydney.edu.au/document/view.current.php?id=308>). Students who are in relevant employment may apply for this experience to be recognised for advanced standing purposes. Students should consult the Credit for Prior Learning Policy (<https://policies.westernsydney.edu.au/document/view.current.php?id=176>).

Placement Policy (<https://policies.westernsydney.edu.au/document/view.current.php?id=308>)

Advanced Standing Policy (<https://policies.westernsydney.edu.au/document/view.current.php?id=176>)

## Admission

For more information on applying please see link to The College admission pages below.

[https://www.westernsydney.edu.au/thecollege/how\\_to\\_apply](https://www.westernsydney.edu.au/thecollege/how_to_apply) ([https://www.westernsydney.edu.au/thecollege/how\\_to\\_apply/](https://www.westernsydney.edu.au/thecollege/how_to_apply/))

Domestic students are required to have:

- Completed an English unit in the NSW Higher School Certificate, **or**
- Competency in English at IELTS academic 6.0 equivalent (unless a native speaker) **or**
- Passed The College English test with 70% or higher **or**
- Passed The College Foundation Studies Academic English subject at C grade level or higher.

Students are also assumed to have completed some study in Mathematics and Science at a senior high school level or equivalent.

Met other entry requirements such as:

- An ATAR identified prior to the offer of a place, **or**
- Completed The College Foundation Studies program with a Grade Point Average of 5.5 or higher.

International students must satisfy one of the following language requirements:

- IELTS 6.0 with a minimum 5.5 in each sub band **or**
- Completed the College EAP 4 program with a 50% pass **or**
- Passed The College English test at IELTS academic 6.0 equivalent **or**
- Passed The College Foundation Studies Academic English subject 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 College Foundation Studies program with a Grade Point Average of 5.5 or higher.

## Program Structure

Qualification for this award requires the completion of 250 credit points which includes: 90 credit points of core subjects, 80 credit points taken as a Science major plus 80 credit points of elective subjects.

An exception to this is MT3031 Environmental Health specialisation, students must complete 80 credit points of core subjects plus 120 credit points of Environmental Health subjects plus 40 credit points of elective subjects..

Students must complete at least 60 credit points at level 3 or above. Depending on the major selected, students may need to select at least 10 credit points of elective study at Level 3 to meet this requirement.

Subjects are 10 credit points each unless otherwise indicated.

### Year One - College Subjects

Standard 3 term (90 credit points)

Subject	Title	Credit Points
<b>Preparatory Subject</b>		
CHEM 0001	Chemistry (WSTC Prep)	10
<b>Eight University Level Subjects</b>		
BIOS 1014	Cell Biology (WSTC)	10
CHEM 1013	Essential Chemistry (WSTC)	10
NATS 1020	Scientific Literacy (WSTC)	10
CHEM 1009	Introductory Chemistry (WSTC)	10
BIOS 1003	Biodiversity (WSTC)	10
Select three of the following (depending on the testamur major chosen):		30
NATS 1029	Human Anatomy and Physiology 1 (WSTC)	
PROC 1007	Introduction to Food Science (WSTC)	
NATS 1030	Human Anatomy and Physiology 2 (WSTC)	
ENVL 1007	Environmental Health Issues and Solutions (WSTC)	
NATS 1026	Digital Forensic Photography (WSTC)	
BIOS 1038	Anatomy and Physiology in Health (WSTC)	
BIOS 1034	Management of Aquatic Environments (WSTC)	
If selecting a math subject, you may choose only one of the following:		
MATH 1027	Quantitative Thinking (WSTC)	
MATH 1004	Biometry (WSTC)	
<b>Total Credit Points</b>		<b>90</b>

Students may exit at this point and graduate with the Diploma in Science following a passing grade in all of the above subjects. Students who progress to Year Two may also be awarded the Diploma if they gain a passing grade in all of the above subjects.

Students must pass all College Preparatory subjects before progressing to the Year Two subjects.

Students must pass at least 70 credit points of University level subjects in Year One before progressing to the Year Two subjects.

## Years 2 and 3

### Western Sydney University Subjects

160 credit points as per the rules of the Bachelor of Science (3754)

#### Core Subjects

Students are allocated core subjects from the following areas depending on the specialisation chosen. Students should consult the sequence of subjects identified for each specialisation.

Subject	Title	Credit Points
Select one of the following:		10
MATH 2001	Advanced Calculus	
BIOS 2042	Biochemistry	
NATS 2019	Forensic and Environmental Analysis	
NATS 2042	Science Research Methods	
CHEM 2001	Analytical Chemistry	
PUBH 2010	Epidemiology	
Select one of the following:		10
NATS 3044	Complex Case Studies in Science	
NATS 3008	Complex Forensic Studies	
NATS 3045	Work Internship for Science Professionals	
Select one of the following:		10
NATS 3027	Laboratory Quality Management	
NATS 3015	Field Project 1	
BIOS 3012	Conservation Biology	
NATS 3040	Topics in Medical Science	
Note: Students are allocated a core subject from these areas depending on the major chosen. Students should consult the sequence of subjects identified for each major		
<b>Total Credit Points</b>		<b>30</b>

#### Majors

Students are required to complete eight major core subjects from one of the following testamur majors.

Students selecting MT3031 Environmental Health are required to complete twelve major core subjects.

Students may only select one testamur major

Agrifood, Testamur Major (T123) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/agrifood-ug-testamur-major/>)

Animal Science, Testamur Major (T054) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/animal-science-ug-testamur-major/>)

Applied Physics, Testamur Major (T078) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/applied-physics-ug-testamur-major/>)

Biology, Testamur Major (T053) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/biology-ug-testamur-major/>)

Chemistry, Testamur Major (T026) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/chemistry-ug-testamur-major/>)

Environmental Health, Testamur Major (T076) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/environmental-health-ug-testamur-major/>)

Forensic Science, Testamur Major (T049) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/forensic-science-ug-testamur-major/>)

Innovative Foods, Testamur Major (T124) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/innovative-foods-ug-testamur-major/>)

Sustainable Environmental Futures, Testamur Major (T120) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/sustainable-environmental-futures-ug-testamur-major/>)

Zoology, Testamur Major (T029) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/zoology-ug-testamur-major/>)

#### Electives Subjects

Students may use their elective subjects to complete a second major (80 credit points) or one or more sub-majors (40 credit points each) from the same or another discipline area, or up to 80 credit points from the wide range of subjects offered by Western Sydney University.

Students may complete a second testamur major chosen from the list below

Agrifood, Testamur Major (T123) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/agrifood-ug-testamur-major/>)

Anatomy and Physiology, Testamur Major (T084) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/anatomy-physiology-ug-testamur-major/>)

Animal Science, Testamur Major (T054) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/animal-science-ug-testamur-major/>)

Applied Physics, Testamur Major (T078) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/applied-physics-ug-testamur-major/>)

Biology, Testamur Major (T053) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/biology-ug-testamur-major/>)

Biomedical Science, Testamur Major (T086) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/biomedical-science-ug-testamur-major/>)

Chemistry, Testamur Major (T026) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/chemistry-ug-testamur-major/>)

Environmental Health, Testamur Major (T076) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/environmental-health-ug-testamur-major/>)

Forensic Science, Testamur Major (T049) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/forensic-science-ug-testamur-major/>)

Human Nutrition, Testamur Major (T125) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/human-nutrition-ug-testamur-major/>)

Innovative Foods, Testamur Major (T124) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/innovative-foods-ug-testamur-major/>)

Sustainable Environmental Futures, Testamur Major (T120) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/sustainable-environmental-futures-ug-testamur-major/>)

Zoology, Testamur Major (T029) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/zoology-ug-testamur-major/>)

NOTE: Students must seek advice from their Academic Program Advisor before selecting a second testamur major (or major) to ensure course requirements are met

#### Suggested minors

Environmental Health, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/environmental-health-minor/>)

Infectious Diseases, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/infectious-diseases-minor/>)

Microbiology, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/microbiology-minor/>)

Students taking a pathway to teaching minor must first seek academic advice before selecting electives or minors.

Enrolment in elective subjects is subject to meeting any required criteria for individual subjects, such as co-requisites and pre-requisites.

Students should note that either BIOS 1014 Cell Biology (WSTC) or CHEM 1013 Essential Chemistry (WSTC) (depending on testamur major chosen) will be considered an elective subject.