

# BACHELOR OF SCIENCE/ BACHELOR OF BUSINESS (4748)

**Approved Abbreviation:** BSc/BBus

**Western Sydney University Program Code:** 4748

**AQF Level:** 7

**CRICOS Code:** 089207E

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, please refer to: 4748.3 Bachelor of Science/Bachelor of Business (<http://handbook.westernsydney.edu.au/hbook/course.aspx?course=4748.3>)

For commencement year 2018, please refer to: 4748.2 Bachelor of Science/Bachelor of Business (<http://handbook.westernsydney.edu.au/hbook/course.aspx?course=4748.2>)

For commencement year 2016, please refer to: 4748.1 Bachelor of Science/Bachelor of Business (<http://handbook.westernsydney.edu.au/hbook/course.aspx?course=4748.1>)

The Bachelor of Science/Bachelor of Business double degree program allows graduates to span both the commercial and scientific worlds in a way that single degree graduates cannot. This double degree permits students to undertake multi-skilling, and offers diverse career paths providing high marketability in multiple areas of expertise. Graduates will have a solid grounding in a core science discipline from a range of majors including Biology, Data Science, Ecology, Zoology, Environmental Health, Mathematics, and Forensic Chemistry. This qualification in science is combined with one of the following majors from the Bachelor of Business: Applied Finance, Economics, Hospitality Management, Human Resource Management, International Business, Management, Marketing, and Sport Management. Graduates will be equipped to work as scientists with a good understanding of business principles and practices. Alternatively, as Business graduates, they will be well-prepared to work in science-based industries and institutions.

## Study Mode

Four years full-time

## Program Advice

Program Advice ([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
Campbelltown Campus	Full Time	Internal	See above
Hawkesbury Campus	Full Time	Internal	See above

Parramatta Campus -	Full Time	Internal	See above
Victoria Road			

## Accreditation

- Testamur Major T038 - Applied Finance satisfies the educational requirements for membership of the Financial Services Institute of Australasia (Finsia).
- Testamur Major T041 - Human Resource Management (including online) is accredited with the Australian Human Resources Institute (AHRI).
- Testamur Major T044 - Marketing satisfies the requirements of accreditation of Marketing subjects in accordance with the Australian Marketing Institute's Accreditation and Endorsement Program. On completion of an AMI Accredited program graduates are eligible for special graduate membership rates and credit towards becoming a Certified Practising Marketer (CPM) in a shorter duration of time. Specifically, graduates are eligible to apply for a reduction off the minimum five (5) years industry experience required before becoming a CPM.

## Association to Advance Collegiate Schools of Business (AACSB)

The business component of this program is accredited by the Association to Advance Collegiate Schools of Business (AACSB).

## 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.

There is a mandatory work component required for completion of this program. Please contact the Program Advisor listed above for information.

International students should also refer to the link below for more information and a link to the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS).

Work Integrated Learning (WIL) for international students ([https://www.westernsydney.edu.au/currentstudents/current\\_students/services\\_and\\_facilities/international\\_student\\_support/working\\_in\\_australia/work\\_integrated\\_learning/](https://www.westernsydney.edu.au/currentstudents/current_students/services_and_facilities/international_student_support/working_in_australia/work_integrated_learning/))

For the Science degree, work integrated learning is a component of many units in the core of the course and testamur majors. Students must study to a specific work integrated learning unit, Complex Case Studies in Science. This unit is designed to provide students with opportunities for personal development, industry and civic engagement and to develop career readiness. The unit 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 units.

## Admission

Eligibility for admission to the Bachelor Science/Bachelor of Business is based on the following requirements

- Bachelor of Science assumed knowledge: At least two units of Biology, Chemistry, Mathematics, Physics at HSC level.
- Bachelor of Business assumed knowledge: HSC Mathematics and any two units of HSC English.

Applications from Australian and New Zealand citizens and holders of permanent resident visas may be made via the Universities Admissions Centre (UAC) or directly through the Western Portal. Use the links below

to apply via UAC or Western Sydney University. Applications made directly to Western Sydney do not have an application fee.

<http://www.uac.edu.au/>  
<https://westernsydney.uac.edu.au/ws/>

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local 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 the University should also use the information provided on the UAC website.

International students currently completing an Australian Year 12 in or outside Australia, an International Baccalaureate in Australia or a New Zealand National Certificate of Educational Achievement (NCEA) level 3 must apply via UAC International.

<http://www.uac.edu.au/>

All other International applicants must apply directly to the University via the International Office.

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

International Office (<http://www.westernsydney.edu.au/international/>)

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 Western Sydney University.

## Program 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 with the selected testamur major, and a Bachelor of Business.

Students should note that core subjects will be allocated based on the Testamur Major chosen and as indicated in the relevant testamur major sequence.

To complete some of the components within this program, students may be required to travel between Western Sydney University campuses in order to complete their subjects.

## Science Component

Students should note that core subjects will be allocated based on the Testamur Major chosen and as indicated in the relevant testamur major sequence.

Subject	Title	Credit Points
<b>Bachelor of Science core units</b>		
Students are required to complete the following two Subjects		
CHEM 1008	Introductory Chemistry	10
NATS 1019	Scientific Literacy	10
<b>Foundation (depending on testamur major selected):</b>		
Select two of the following:		20
BIOS 1012	Cell Biology	
BIOS 1001	Biodiversity	
CHEM 1012	Essential Chemistry	
<b>Mathematics (depending on testamur major selected):</b>		
Select one of the following:		10

MATH 1026 Quantitative Thinking

MATH 1014 Mathematics 1A

MATH 1003 Biometry

### Analytical Science (depending on testamur major selected):

Select one of the following:

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

### Work Integrated Learning (depending on testamur major selected):

Select one of the following:

NATS 3044 Complex Case Studies in Science

NATS 3045 Work Internship for Science Professionals

NATS 3045 is only available to students in T076 Environmental Health

### Core Capstone (depending on testamur major selected):

Select one of the following:

NATS 3027 Laboratory Quality Management

NATS 3015 Field Project 1

BIOS 3012 Conservation Biology

NATS 3040 Topics in Medical Science

## Bachelor of Science Testamur Majors

Students must choose one of the following testamur majors:

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/>)

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/>)

Please note that not all Testamur Majors are available at all campuses.

## Business Component

Core Subjects (compulsory 40 credit points)

The four compulsory core subjects that provide students with essential business knowledge are:

**Mathematics (depending on testamur major selected):**

Select one of the following:

Subject	Title	Credit Points
LAWS 1001	Enterprise Law	10
BUSM 1010	Financing Enterprises	10
BUSM 1006	Enterprise Innovation and Markets	10
BUSM 1008	Enterprise Leadership	10
<b>Total Credit Points</b>		<b>40</b>

#### Professional Subjects (choose 40 credit points)

The professional subjects provide a focus on careers. Students are required to complete one subject from each of the four key focus areas: numeracy, career planning, innovation, and enterprise engagement, a total of 40 credit points. Students are advised to choose subjects that will support careers in one of three areas:

- Money (for majors in Applied Finance, Economics),
- Markets (for majors in Hospitality Management, International Business, Marketing, and Sport Management),
- Management (for majors in Human Resource Management, and Management).

The professional subjects that are recommended for each of the Bachelor of Business testamur majors are specified in the majors.

**Majors (choose 80 credit points from one primary Business major. These are testamur majors)**

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

#### Majors for Careers in Money

Applied Finance, Testamur Major (T038) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/applied-finance-ug-testamur-major/>)  
 Economics, Testamur Major (T039) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/economics-ug-testamur-major/>)

#### Majors for Careers in Markets

International Business, Testamur Major (T042) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/international-business-ug-testamur-major/>)  
 Marketing, Testamur Major (T044) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/marketing-ug-testamur-major/>)  
 Sport Management, Testamur Major (T045) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/sport-management-ug-testamur-major/>)

#### Majors for Careers in Management

Human Resource Management, Testamur Major (T041) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/human-resource-management-ug-testamur-major/>)  
 Management, Testamur Major (T043) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/management-ug-pg-testamur-major/>)

#### Majors for Careers in Business Analytics

Business Analytics, Testamur Major (T130) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/business-analytics-ug-testamur-major/>)

## Program 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 with the selected testamur major, and a Bachelor of Business.

Students should note that core subjects will be allocated based on the Testamur Major chosen and as indicated in the relevant testamur major sequence.

To complete some of the components within this program, students may be required to travel between Western Sydney University campuses in order to complete their subjects.

### Science Component

Students should note that core subjects will be allocated based on the Testamur Major chosen and as indicated in the relevant testamur major sequence.

Subject	Title	Credit Points
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#### Bachelor of Science core units

Students are required to complete the following two Subjects	
CHEM 1008	Introductory Chemistry
NATS 1019	Scientific Literacy

#### Foundation (depending on testamur major selected):

Select two of the following:	
BIOS 1012	Cell Biology
BIOS 1001	Biodiversity
CHEM 1012	Essential Chemistry

#### Mathematics (depending on testamur major selected):

Select one of the following:	
MATH 1026	Quantitative Thinking
MATH 1014	Mathematics 1A
MATH 1003	Biometry

#### Analytical Science (depending on testamur major selected):

Select one of the following:	
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

#### Work Integrated Learning (depending on testamur major selected):

Select one of the following:	
NATS 3044	Complex Case Studies in Science
NATS 3045	Work Internship for Science Professionals

NATS 3045 is only available to students in T076 Environmental Health

#### Core Capstone:

NATS 3055	Practicum 1	
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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/>)

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/>)

Please note that not all Testamur Majors are available at all campuses.

## Business Component

Core Subjects (compulsory 40 credit points)

The four compulsory core subjects that provide students with essential business knowledge are:

Subject	Title	Credit Points
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BUSM 1010	Financing Enterprises	10
BUSM 1006	Enterprise Innovation and Markets	10
BUSM 1008	Enterprise Leadership	10
<b>Total Credit Points</b>		<b>40</b>

Professional Subjects (choose 40 credit points)

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Majors (choose 80 credit points from one primary Business major. These are testamur majors)

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

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Applied Finance, Testamur Major (T038) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/applied-finance-ug-testamur-major/>)

Economics, Testamur Major (T039) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/economics-ug-testamur-major/>)

### Majors for Careers in Markets

International Business, Testamur Major (T042) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/international-business-ug-testamur-major/>)

Marketing, Testamur Major (T044) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/marketing-ug-testamur-major/>)

Sport Management, Testamur Major (T045) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/sport-management-ug-testamur-major/>)

### Majors for Careers in Management

Human Resource Management, Testamur Major (T041) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/human-resource-management-ug-testamur-major/>)

Management, Testamur Major (T043) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/management-ug-pg-testamur-major/>)

### Majors for Careers in Business Analytics

Business Analytics, Testamur Major (T130) (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/business-analytics-ug-testamur-major/>)

## Recommended Sequence

Use the links to each Bachelor of Business Major to see the Core, Professional and Major subjects required. Students should follow the recommended sequence below and not the recommended sequence listed under each Bachelor of Business Major.

This progression pattern is highly recommended. Students' progress through both degrees at the same pace, completing two subjects in each degree in each semester. Graduation after three years with either degree will be possible only if a student makes this decision at or before the end of Year 2 and amends their progression pattern as prescribed by an Academic Program Advisor.

To complete some of the components within this program, students may be required to travel between Western Sydney University campuses in order to complete their subjects.

Students choosing the Applied Physics testamur major should consult the Academic Program Advisor for advice regarding unit sequences.

### Full-time start-year intake

Course	Title	Credit Points
<b>Year 1</b>		
<b>Autumn session</b>		
Select B Bus core subject 1		10
Select B Bus core subject 2		10
BIOS 1001	Biodiversity	10
CHEM 1008	Introductory Chemistry	10
	<b>Credit Points</b>	<b>40</b>
<b>Spring session</b>		
Select B Bus core subject 3		10
Select B Bus core subject 4		10

Select one core Science Mathematics subject (depending on testamur major selected)	10	<b>Year 4</b>
MATH 1026 Quantitative Thinking		<b>Autumn session</b>
MATH 1014 Mathematics 1A		Select B Bus professional subject 3
MATH 1003 Biometry		Select B Bus major subject 7
Select one core Science Foundation subject (depending on testamur major selected)	10	Select two Science testamur major subjects (see the sequence provided with each testamur major).
BIOS 1012 Cell Biology		<b>Credit Points</b>
CHEM 1005 Essential Chemistry 2		40
<b>Credit Points</b>	40	
<b>Year 2</b>		
<b>Autumn session</b>		
Select B Bus professional subject 1	10	
Select B Bus major subject 1	10	
Select two core Science subjects comprising:		
One Analytical Science subject (depending on testamur major selected)	10	Select two Science testamur major subjects (see the sequence provided with each testamur major).
MATH 2001 Advanced Calculus		<b>Credit Points</b>
BIOS 2042 Biochemistry		40
NATS 2019 Forensic and Environmental Analysis		
NATS 2042 Science Research Methods		
CHEM 2001 Analytical Chemistry		<b>Total Credit Points</b>
PUBH 2010 Epidemiology		320
Select the following:		
NATS 1019 Scientific Literacy	10	
<b>Credit Points</b>	40	
<b>Spring session</b>		
Select B Bus professional subject 2	10	
Select B Bus major subject 2	10	
Select one core Science Work Integrated learning subject of the following:	10	
NATS 3045 Work Internship for Science Professionals		This progression pattern is highly recommended. Students' progress through both degrees at the same pace, completing two subjects in each degree in each semester. Graduation after three years with either degree will be possible only if a student makes this decision at or before the end of Year 2 and amends their progression pattern as prescribed by an Academic Program Advisor.
NATS 3044 Complex Case Studies in Science		
Select one Science testamur major subject (see sequence provided with each testamur major).	10	
<b>Credit Points</b>	40	
<b>Year 3</b>		
<b>Autumn session</b>		
Select B Bus major subject 3	10	To complete some of the components within this program, students may be required to travel between Western Sydney University campuses in order to complete their subjects.
Select B Bus major subject 4	10	
Select one Science capstone subject (depending on testamur major chosen)	10	Students choosing the Applied Physics testamur major should consult the Academic Program Advisor for advice regarding unit sequences.
NATS 3027 Laboratory Quality Management		
NATS 3015 Field Project 1		
BIOS 3012 Conservation Biology		
NATS 3040 Topics in Medical Science		
Select one Science testamur major subject (see sequence provided with each testamur major).	10	
<b>Credit Points</b>	40	
<b>Spring session</b>		
Select B Bus major subject 5	10	
Select B Bus major subject 6	10	
Select two Science testamur major subjects (see the sequence provided with each testamur major).	20	
<b>Credit Points</b>	40	
<b>Year 1</b>		
<b>Autumn session</b>		
Select B Bus core subject 1	10	
Select B Bus core subject 2	10	
BIOS 1001 Biodiversity		
CHEM 1008 Introductory Chemistry		
<b>Credit Points</b>	40	
<b>Spring session</b>		
Select B Bus core subject 3	10	
Select B Bus core subject 4	10	
Select one core Science Mathematics subject (depending on testamur major selected)	10	
MATH 1026 Quantitative Thinking		
MATH 1014 Mathematics 1A		
MATH 1003 Biometry		
Select one core Science Foundation subject (depending on testamur major selected)	10	
BIOS 1012 Cell Biology		
CHEM 1005 Essential Chemistry 2		
<b>Credit Points</b>	40	

**Year 2****Autumn session**

Select B Bus professional subject 1	10
Select B Bus major subject 1	10
Select two core Science subjects comprising:	
One Analytical Science subject (depending on testamur major selected)	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 the following:	
NATS 1019 Scientific Literacy	10
<b>Credit Points</b>	<b>40</b>

**Spring session**

Select B Bus professional subject 2	10
Select B Bus major subject 2	10
Select one core Science Work Integrated learning subject of the following:	
NATS 3045 Work Internship for Science Professionals	
NATS 3044 Complex Case Studies in Science	
Select one Science testamur major subject (see sequence provided with each testamur major).	10
<b>Credit Points</b>	<b>40</b>

**Year 3****Autumn session**

Select B Bus major subject 3	10
Select B Bus major subject 4	10
Select Science capstone subject	10
NATS 3055 Practicum 1	
Select one Science testamur major subject (see sequence provided with each testamur major).	
<b>Credit Points</b>	<b>40</b>

**Spring session**

Select B Bus major subject 5	10
Select B Bus major subject 6	10
Select two Science testamur major subjects (see the sequence provided with each testamur major).	
<b>Credit Points</b>	<b>40</b>

**Year 4****Autumn session**

Select B Bus professional subject 3	10
Select B Bus major subject 7	10
Select two Science testamur major subjects (see the sequence provided with each testamur major).	
<b>Credit Points</b>	<b>40</b>

**Spring session**

Select B Bus professional subject 4	10
Select B Bus major subject 8	10
Select two Science testamur major subjects (see the sequence provided with each testamur major).	
<b>Credit Points</b>	<b>40</b>

<b>Total Credit Points</b>	<b>320</b>
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