

# MASTER OF SCIENCE (3749)

**Approved Abbreviation:** MSc

**Western Sydney University Program Code:** 3749

**AQF Level:** 9

CRICOS Code: 098472B

This program applies to students who commenced in 2020 or later

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

For Commencement Year 2018 - 2019 - please refer to 3749.1 Master of Science (<http://handbook.westernsydney.edu.au/hbook/course.aspx?course=3749.1>)

The Master of Science is an advanced program that can be taken in a number of specialisations: Public Health Nutrition, Food Science, Greenhouse Horticulture or Agriculture. The program builds on students' professional experience and/or prior qualifications to develop advanced expertise and critical understanding in science and in these disciplines. The program is completed with a capstone unit that is designed to integrate the various themes that flow throughout the program and develop research skills in science. Depending on the majors, students may find employment at a senior level in a wide range of destinations, including federal, state and local government bodies, universities, research organisations, food and agriculture industries, private companies, health facilities, science-based industries, or private consultancies.

Students should note that travel to different campuses may be required depending on the specialisation chosen.

## Early Exits

Students may exit this program on completion of 40 credit points with a 3776 Graduate Certificate in Science (exit only) (<https://hbook.westernsydney.edu.au/archives/2021-2022/programs/graduate-certificate-science-exit-only/>) or on completion of 80 credit points with a 3777 Graduate Diploma in Science (exit only) (<https://hbook.westernsydney.edu.au/archives/2021-2022/programs/graduate-diploma-science-exit-only/>)

## Study Mode

Two years full-time or the equivalent part-time. Students will be required to attend the Hawkesbury campus for some learning experiences.

## 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    |
|-----------------------------------|------------|----------|-----------|
| Parramatta Campus - Victoria Road | Full Time  | Internal | See above |
| Parramatta Campus - Victoria Road | Part Time  | Internal | See above |

|            |           |          |           |
|------------|-----------|----------|-----------|
| Hawkesbury | Full Time | Internal | See above |
| Hawkesbury | Part Time | Internal | See above |

## Accreditation

On completion of this Program graduates with the Food Science Specialisation will be eligible for professional membership of the Australian Institute of Food Science and Technology. On completion of this Program graduates with the Public Health Nutrition Specialisation will be eligible to apply to be an Associate Nutritionist (Anutr) or a Registered Public Health Nutritionist (RPHNutr) if combined with three years of suitable work experience with the Nutrition Society of Australia and/or a Certified Public Health Nutritionist (cPHN) with the World Public Health Nutrition Association. Students may also be eligible to apply for professional membership of Public Health Association of Australia and Australian Health Promotion Association.

## 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 an optional work component available in this program. Please contact the Program Advisor listed above for information.

International students should be aware that if an elective is a requirement of the course but the work itself was not registered with CRICOS, students can still complete these electives but it would be counted towards the work limitation. For more details, refer to the 'Work Integrated Learning (WIL) for international students' website.

The course uses workplaces as a source of learning, with site excursions for some Specialisations. Some students may undertake an industry project as part of 301374 Professional Topic or 301361 Industry Project or 301362 Industry Project Extended. Students will be supervised on site visits by arrangement with the industry partner and overseen by an academic staff member.

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/))

## Admission

Applicants must have successfully completed an undergraduate degree, or higher, in natural or physical science, medical science, environmental studies, agriculture, horticulture, food science, food technology, nutrition or dietetics.

If you have completed relevant prior study or have relevant professional experience, you may be eligible for credit towards your Master of Science which can reduce the duration of your program. Applicants should consult the Director of Academic Programs for further information.

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.

<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.

## Special Requirements Prerequisites

Subject HLTH 7014 Professional Topic has enrolment restrictions: Student must have permission from the Subject Coordinator to enrol in the subject.

## Program Structure

Qualification for this award requires the successful completion of 160 credit points comprising:

20 credit points of core units and 20 credit points of research capstone units and 40 credit points of specialisation units and at least 40 credit points from Alternate Pool 1 and up to 40 credit points from Alternate Pool 2.

Please note that the full course structure is shown in each of the specialisation documents and handbook links.

### Core subjects

All students are required to complete the following two Subjects:

| Subject   | Title                                    | Credit Points |
|-----------|--|---------------|
| MATH 7016 | The Nature of Data                       | 10            |
| NATS 7055 | Experiment Design and Project Management | 10            |

### Research Capstone Pool

All students are required to complete 20 credit points from:

| Subject   | Title   | Credit Points |
|-----------|---|---------------|
| NATS 7033 | MSc Research Project                          | 20            |
| HORT 7004 | Industry Project                              | 10            |
| HORT 7005 | Industry Project (Extended)                   | 10            |
| NATS 7054 | Professional Topic                            | 10            |
| NATS 7057 | Research Preparation in Post Graduate Studies | 10            |

### Equivalent Research Capstone Pool Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in 2021 or earlier.

ENGR 7018 - Research Preparation in Post Graduate Studies, replaced by NATS 7057 (<https://hbook.westernsydney.edu.au/archives/2021-2022/search/?P=NATS%207057>) Research Preparation in Post Graduate Studies

## Major Testamurs

Students are required to complete four major core units from one of the following majors. Students may only select one Major

Agriculture, Testamur Major (T108) (<https://hbook.westernsydney.edu.au/archives/2021-2022/majors-minors/agriculture-pg-testamur-major/>)

Food Science, Testamur Major (T059) (<https://hbook.westernsydney.edu.au/archives/2021-2022/majors-minors/food-science-testamur-pg-major/>)

Greenhouse Horticulture, Testamur Major (T107) (<https://hbook.westernsydney.edu.au/archives/2021-2022/majors-minors/greenhouse-horticulture-pg-testamur-major/>)

Public Health Nutrition, Testamur Major (<https://hbook.westernsydney.edu.au/archives/2021-2022/majors-minors/public-health-nutrition-pg-testamur-major/>)

### Alternate Pool

Complete 80 credit points comprising:

at least 40 credit points from Alternate Pool 1 and up to 40 credit points from Alternate Pool 2.

### Graduate Diploma in Science (Exit only)

Qualification for this award requires the successful completion of 80 credit points comprising: 10 credit points of core units and 70 credit points of alternate units comprising at least 30 credit points from Alternate Pool 1 and up to 40 credit points from Alternate Pool 2.

### Core Subject

All students are required to complete the following core unit:

| Subject   | Title              | Credit Points |
|-----------|--------------------|---------------|
| MATH 7016 | The Nature of Data | 10            |

### Alternate Pool

Students are required to complete 70 credit points comprising: at least 30 credit points from Alternate Pool 1 and up to 40 credit points from Alternate Pool 2.

### Graduate Certificate in Science (Exit only)

Qualification for this award requires the successful completion of 40 credit points as follows: 10 credit points of core subjects and at least 10 credit points from Alternate Pool 1 and up to 20 credit points from Alternate Pool 2.

### Core Subject

All students are required to complete the following core unit:

| Subject   | Title              | Credit Points |
|-----------|--------------------|---------------|
| MATH 7016 | The Nature of Data | 10            |

### Alternate Pool

Students are required to complete 30 credit points as follows: Choose at least 10 credit points from Alternate Pool 1 and choose up to 20 credit points from Alternate Pool 2.

### Alternate Pool 1

| Subject   | Title                           | Credit Points |
|-----------|---------------------------------|---------------|
| NATS 7053 | MSc Research Project (extended) | 20            |
| HORT 7004 | Industry Project                | 10            |

|           |   |    |           |  |    |
|-----------|---|----|-----------|--|----|
| NATS 7054 | Professional Topic                                    | 10 | PUBH 7024 | Safety and Risk Management                             | 10 |
| NATS 7016 | Food Preservation and Packaging Technologies          | 10 | CIVL 7014 | Sustainable Systems                                    | 10 |
| NATS 7015 | Food Evaluation                                       | 10 | CIVL 7018 | Water Treatment and Distribution                       | 10 |
| NATS 7018 | Food Quality Management                               | 10 | CIVL 7008 | Advanced Waste Management                              | 10 |
| NATS 7017 | Food Product Design                                   | 10 | ENVL 7002 | Planning and Environmental Regulation                  | 10 |
| HLTH 7003 | Community and Public Health Nutrition                 | 10 | BUSM 7014 | Compliance Management                                  | 10 |
| HLTH 7011 | Nutritional Assessment Methods                        | 10 | BUSM 7078 | Project Management                                     | 10 |
| PUBH 7022 | Public Health, Policy and Society                     | 10 | BUSM 7011 | Business Operations and Logistics                      | 10 |
| HLTH 7010 | Nutrition Promotion                                   | 10 | BUSM 7092 | Supply Chain Management                                | 10 |
| HORT 7006 | Plant-Climate Interactions in Controlled Environments | 10 | MKTG 7033 | Customer Experience                                    | 10 |
| HORT 7001 | Advanced Greenhouse Technology                        | 10 | BUSM 7046 | Innovation for New Markets                             | 10 |
| HORT 7002 | Greenhouse Control Systems                            | 10 | BUSM 7048 | Innovation, Creativity and Foresight                   | 10 |
| HORT 7003 | Greenhouse Crop Production                            | 10 | BUSM 7043 | Industrial Relations and Workplace Change              | 10 |
| AGRI 7001 | Agricultural Biosecurity                              | 10 | BUSM 7024 | Developing Human Capital and Organisational Capability | 10 |
| AGRI 7002 | Agricultural Biotechnology                            | 10 | BUSM 7086 | Strategic Business Management                          | 10 |
| AGRI 7003 | Agricultural Technologies                             | 10 | PUBH 7011 | Health Advancement and Health Promotion                | 10 |
| AGRI 7004 | Livestock Production Systems                          | 10 | HLTH 7001 | A Global Perspective on Social Determinants of Health  | 10 |
| PHYS 7001 | A Cosmic Perspective                                  | 10 | HLTH 7015 | Qualitative Research Methodology in Health             | 10 |
| PHYS 7002 | Space Instrumentation, Technology and Communication   | 10 | HLTH 7006 | Health Services and Facilities Planning                | 10 |
| PHYS 7003 | Space Science, Planetary Science and Meteorology      | 10 | ARCH 7001 | Developing Sustainable Places                          | 10 |
| BIOS 7001 | Emerging Technologies for Biological Science          | 10 | POLI 7002 | Translation from Theory and Research to Policy         | 10 |
| AGEN 7002 | Ecosystems in a Changing World                        | 10 | PUBH 7020 | Policy, Power and Politics in Health Care Provision    | 10 |
| COMP 7006 | Data Science  | 10 | PUBH 7014 | Health and Socio-political Issues in Aged Care         | 10 |
| COMP 7023 | Predictive Analytics                                  | 10 | PUBH 7004 | Communicable Diseases                                  | 10 |
| COMP 7024 | Programming for Data Science                          | 10 | HLTH 7007 | Health Workforce Planning                              | 10 |
| COMP 7025 | Social Media Intelligence                             | 10 | HLTH 7002 | Building Organisational Capacity in Health Care        | 10 |
| COMP 7016 | Visualisation   | 10 | PUBH 7028 | Surveillance and Disaster Planning                     | 10 |
|           |   |    | PUBH 7015 | Introduction to Clinical Epidemiology                  | 10 |
|           |   |    | PUBH 7006 | Data Management and Programming for Epidemiology       | 10 |
|           |   |    | PUBH 7010 | Epidemiology of Non-Communicable Diseases              | 10 |
|           |   |    | PUBH 7005 | Controversies in Epidemiology                          | 10 |
|           |   |    | PUBH 7002 | Analytic Approaches in Epidemiology                    | 10 |
|           |   |    | PUBH 7025 | Statistical Methods in Epidemiology                    | 10 |

## Equivalent Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in 2021 or earlier.

MATH 7011 Predictive Analytics, replaced by COMP 7023 Predictive Analytics

MATH 7012 Programming for Data Science, replaced by COMP 7024 Programming for Data Science

MATH 7014 Social Media Intelligence, replaced by COMP 7025 Social Media Intelligence

## Alternate Pool 2

This pool comprises units from other fields that add breadth to your studies.

| Subject   | Title  | Credit Points |
|-----------|--|---------------|
| ACCT 7015 | Financial Reports for Decision Making          | 10            |
| BUSM 7099 | Understanding Contemporary Organisations       | 10            |
| MKTG 7019 | Marketing Systems                              | 10            |
| BUSM 7018 | Contemporary People Management                 | 10            |
| ECON 7001 | Economics                                      | 10            |
| BUSM 7040 | Governance, Ethics and Social Entrepreneurship | 10            |
| BUSM 7086 | Strategic Business Management                  | 10            |
| PUBH 7016 | Introduction to Epidemiology                   | 10            |
| NURS 7022 | Ethics in Health Research                      | 10            |
| ENGR 7017 | Professional Practice and Communication        | 10            |
| PUBH 7019 | Occupational Health Management                 | 10            |

Please note that the availability of Alternate Subjects may vary from year to year. New subjects may become available and some others discontinued. The most recent version of program Master of Science indicates which units are offered in the course. The School will publish information on which units are available in a session

## Replaced Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in 2020 or earlier.

MATH 7013 Scientific Informatics