

Handbook 2020

Coursecode

M1248

MASTER OF BIOSECURITY

Murdoch University

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Cancellation of Courses, Majors, Minors and Units

The University reserves the right to cancel, without notice, any course, major, minor or unit if the number of students enrolled falls below limits set by the University or in other unforeseen circumstances.

Alternative Formats

Handbook home page:

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This publication can also be provided in alternative formats by contacting the Equity and Social Inclusion Office at Murdoch University

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Group	Course	Offerings
Graduate Coursework Degrees and Professional Doctorates		
Biosecurity	Master of Biosecurity (MBiosec)	<ul style="list-style-type: none"> • Murdoch campus (internal) • Murdoch campus (external)

BIOSECURITY

MASTER OF BIOSECURITY (Mbiosec)

Agricultural Sciences

Master of Biosecurity (Mbiosec)

Course Codes: M1248

Restriction: All graduate courses are subject to restriction.

Duration: 1.5 years full-time or part-time equivalent

Availability:

- Murdoch campus (internal)
 Murdoch campus (external)

Biosecurity is a growing field of activity for many professionals involved in agriculture, the environment and international and domestic trade. This growth is driven by the need to maintain agricultural and environmental integrity in a world where, due to ever increasing levels of trade and human movement, exotic organisms pose major and ongoing threats. Biosecurity is central to the management of these threats, with a continuum of activities involving risk analysis, quarantine and surveillance to stop the entry of exotic organisms, rapid emergency response in the event of an exotic incursion, and then the management of pest and disease organisms if they permanently establish and impact on trade.

This course has been developed in consultation with representatives from Canada, United States, New Zealand and Australia. Students graduating from the course can do so with the knowledge that their degree will meet the highest level of industry requirement. This course requires students to undertake work-based training through a compulsory work-based placement as part of their studies.

Employment Prospects:

Graduates will be able to pursue careers in biosecurity, quarantine and pest management, acting in technical, research and administrative roles, with organisations such as the State Departments of Agriculture, State and Federal Biosecurity Agencies, Plant or Animal Health Australia and private industry, or their international counterparts.

Admission Requirements (Onshore):

Completion of an AQF level 7 qualification, in the plant, food, ecological, environmental or animal sciences or an equivalent field as determined by the Academic Chair, or the Graduate Certificate or Graduate Diploma in Plant Biosecurity.

Special Requirements:

Internet access is required for all students.

Main Research Areas:

Detection, diagnostics, risk analysis, risk mitigation, communication

Course Structure - 36 credit points

Core Units - 24 credit points

BIO629 Biosecurity Masters Research Dissertation - 12 points
MURDOCH: H-internal, H-external, S1-internal, S1-external, S2-internal, S2-external, Y-internal, Y-external

BIO639 Global Biosecurity - 3 points
MURDOCH: S1-internal, S1-external

VET657 Risk Analysis from Farm to Fork - 3 points
MURDOCH: S1-external

MCM605 International Strategic Communication and Culture - 3 points
MURDOCH: S2-internal

OR

OTH546 Community Engagement (Charles Darwin University

SBI401) - 3 points equivalent

MURDOCH: S2-external

VLS683 Advanced Research Methods for Scientists - 3 points
MURDOCH: S1S-internal, S1S-external, S2N3-internal, S2N3-external

Specified Electives - 12 credit points

Select from the following:

VET641 Principles of Epidemiology - 3 points
MURDOCH: S2-internal, S2-external

VET640 Infectious and Emerging Diseases - 3 points
MURDOCH: S2-external

BIO537 Plant Biosecurity: Detection and Diagnostics - 3 points
MURDOCH: S1-external

BIO606 Aquatic Biosecurity - 3 points
Not available this year

VET699 Epidemiological Studies: Design and Analysis - 3 points

VET603 One Health: Wildlife Perspectives - 3 points
MURDOCH: S1-internal, S1-external

VET655 One Health Management and Leadership - 3 points

ENV616 Environmental Policy for the 21st Century - 3 points
MURDOCH: S1-internal (quota of 30 places), S1-external (quota of 10 places)

BIO607 Invasive and Pest Species Management - 3 points
MURDOCH: S2-internal, S2-external

OTH541 Biosecurity Plant Pests - Invertebrates (University of Queensland) - 3 points equivalent
MURDOCH: S1-external

OTH542 Biosecurity Plant Pests - Pathogens (La Trobe University BOT5BPP) - 3 points equivalent
MURDOCH: S2-external

PREREQUISITES

Advanced Research Methods for Scientists (VLS683)

Enrolment in Honours or a graduate-level (AQF level 9) course or Bachelor Environmental Science.

Aquatic Biosecurity (BIO606)

Enrolment in Masters-level course.

Biosecurity Masters Research Dissertation (BIO629)

Enrolment in the Master of Plant Biosecurity or Master of Biosecurity.

Biosecurity Plant Pests - Invertebrates (University of Queensland) (OTH541)

Enrolment in the Graduate Certificate in Plant Biosecurity, Graduate Diploma in Plant Biosecurity or Master of Plant Biosecurity.

Biosecurity Plant Pests - Pathogens (La Trobe University BOT5BPP) (OTH542)

Enrolment in the Graduate Certificate in Plant Biosecurity, Graduate Diploma in Plant Biosecurity or Master of Plant Biosecurity.

Community Engagement (Charles Darwin University SBI401) (OTH546)

Enrolment in the Graduate Certificate or Graduate Diploma in Plant Biosecurity or Master of Plant Biosecurity or Master of Biosecurity.

Environmental Policy for the 21st Century (ENV616)

Enrolment in Master-level qualification or Graduate Diploma in Energy and the Environment.

Epidemiological Studies: Design and Analysis (VET699)

Enrolment in Master of Veterinary Studies (Veterinary Surveillance),

Master of Veterinary Studies (Conservation Medicine), Doctor of Veterinary Medical Science, Master of Veterinary Clinical Studies, Master of Biosecurity or permission of the Academic Chair.
Successful completion of, or concurrent enrolment in, VET641 Principles of Epidemiology.

Global Biosecurity (BIO639)

Enrolment in a graduate-level course.

Infectious and Emerging Diseases (VET640)

Enrolment in Master of Veterinary Studies in Veterinary Surveillance, Master of Biosecurity, Master of Veterinary Studies in Conservation Medicine or permission of the Academic Chair.

International Strategic Communication and Culture (MCM605)

Enrolment in graduate course of study.

Invasive and Pest Species Management (BIO607)

Enrolment in Master of Biosecurity.

One Health Management and Leadership (VET655)

Enrolment in Master of Health Policy and Leadership or Master of Health Administration, Policy and Leadership.

One Health: Wildlife Perspectives (VET603)

Students must be enrolled in the following:
Master of Wildlife Health and Conservation (M1232) or the Master of Veterinary Studies in Conservation Medicine (M1122).

Plant Biosecurity: Detection and Diagnostics (BIO537)

Enrolment in a graduate-level course. Students who wish to enrol in this unit as 'not for award' will be considered on a case by case basis.

Principles of Epidemiology (VET641)

Enrolment in Masters of Veterinary Studies (Veterinary Surveillance), Master of Veterinary Studies (Conservation Medicine), Doctor of Veterinary Medical Science, Master of Veterinary Clinical Studies, Master of Biosecurity or permission of the Academic Chair.

Risk Analysis from Farm to Fork (VET657)

Enrolment in Graduate Certificate of Plant Biosecurity or Master of Biosecurity or permission of the Academic Chair.