Conservation and Restoration

Year and Campus:	2016
Coordinator:	Professor Roger Cousens, Faculty of Science Dr Jasmin Hufschmid, Faculty of Veterinary and Agricultural Science
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Overview:	Conservation and Restoration is offered as a major field of study in the Master of Environment degree. Biodiversity loss is one of the key environmental challenges globally. Sustainable societies depend on successful conservation and restoration of this diversity, at genetic, species, community and landscape scales. Students will explore the biophysical and social factors shaping endeavours to conserve and restore wildlife and vegetation. They will develop skills for planning and managing biodiversity at species, community and landscape scales. The cross-faculty teaching program ensures students have a sound understanding of the ecological principles underpinning conservation and restoration, and an appreciation of the political and community dimensions of establishing and implementing these plans. The major is suitable for people with undergraduate studies and/or professional work experience in life sciences, forestry, natural resource management, agriculture, parks and wildlife management, and environmental engineering. It is also an appropriate major for government and industry professionals working in conservation and development who are looking to upgrade or link their skills to environmental management. Graduates can expect to find employment in regulatory agencies, local and state government authorities, environmental consulting companies, and industries with international interests in developing economies

Learning Outcomes:	Students who complete the Master of Environment will have:
	# Knowledge to undertake professional practice in environment or sustainability, including:
	  # Specialised knowledge in an environmental discipline or field of practice, including knowledge of recent developments in this field
	  # Knowledge of the cross-disciplinary nature of environmental issues and professional practice to promote sustainable futures
	  # Knowledge of research principles and methods applicable to specialist field of environmental inquiry
	# Skills for collaborative and creative problem solving in environmental practice, including:
	  # Ability to critically analyse and synthesise environmental knowledge
	  # Ability to envision environmental change and propose pathways to realise this change
	  # Ability to communicate complex environmental knowledge and research effectively to a range of audiences
	  # Ability to work effectively in cross-disciplinary teams
	  # Technical skills for professional practice and research in field of specialisation
	# Demonstrated capacity to:
	Upon successful completion of the Conservation and Restoration specialisation, students will be able to:
	# Analyse the biophysical and social factors influencing ecosystem and species functioning at genetic, species, community and landscape scales.
	# Propose strategies and plans for conserving and restoring ecosystems
	# Collaborate with professionals from across disciplines and sectors to develop, implement and evaluate conservation and restoration plans

Structure & Available Subjects:	Students will be required to complete the two core subjects, plus choose three subjects from the compulsory specialisation subject list. Students in the 200 point pathway must also take at least 12.5 points of subjects from the compulsory capstone subjects – these subjects enable students to complete an independent project related to professional practices in ecosystem and species management. Students in the 100 point pathway will not normally be required to complete this component. Students must also undertake electives to make up the balance of the

award. The selection of electives is made in consultation with the Conservation and Restoration major coordinator. A full list of subjects available within this specialisation can be found here:

http://environment.unimelb.edu.au/courses/streams/conservation_restoration_and_landscape_management (http://environment.unimelb.edu.au/courses/streams/conservation_restoration_and_landscape_management)

Subject Options:

Core subjects

Students must complete the following core subjects:

Subject	Study Period Commencement:	Credit Points:
MULT90004 Sustainability Governance and Leadership	March, July	12.50
MULT90005 Interdisciplinarity and the Environment	Semester 2	12.50

Compulsory Specialisation Subjects

Students must complete three of the following subjects:

Subject	Study Period Commencement:	Credit Points:
FRST90034 Ecological Restoration	September	12.50
GEOG90003 Integrated River & Catchment Management	Semester 1	12.50
NRMT90002 Management of Plant and Animal Invasions	Semester 2	12.50
VETS90016 Wildlife Management	Semester 1	12.50

Compulsory Capstone Experience

Students must complete at least 12.5 points from the following compulsory capstone subjects - please note that if you select either a 25 or 50 point subject that spreads across two semesters you must enrol into the subject in both semesters (your student centre will be able to assist with this). Students completing the 100 point pathway will normally be exempt from this requirement.

Subject	Study Period Commencement:	Credit Points:
ENST90006 Environmental Research Review (12.5)	Semester 1, Semester 2	12.50
ENST90007 Environmental Research Project (25)	Semester 1, Semester 2	25
ENST90024 Environmental Research Project - 25 Long	Semester 1, Semester 2	12.50
ENST90016 Environmental Research Project (50)	Semester 1, Semester 2	50
ENST70001 Environmental Research Proj (50 Long)	Semester 1, Semester 2	25
ENST90025 Environmental Industry Research (25)	Semester 1, Semester 2	25
ENST90026 Environmental Industry Research: 25 Long	Semester 1, Semester 2	12.50
ENST90020 Environmental Industry Research (50)	Semester 1, Semester 2	50
ENST70002 Environmental Industry Research: 50 Long	Semester 1, Semester 2	25
DEVT90002 Internship in Development	January, Semester 1, Semester 2	12.50
DEVT90008 International Internship in Development	January, Semester 1, Semester 2	25
FRST90035 Forest Internship Project	Year Long	25

Elective Subjects

Students should make up the balance of the award with electives. Subjects in the list below are recommended. Other subjects may be taken with the approval of stream coordinator.

Subject	Study Period Commencement:	Credit Points:
AGRI90066 Soil Science and Management	Semester 1	12.50
BIOL90002 Biometry	July	12.50
BOTA90005 Flora of Victoria	February	12.50
CHEM90007 Environmental Chemistry	Semester 1	12.50
ENST90002 Social Impact Assessment and Evaluation	Semester 2	12.50
ENST90005 Environmental Policy	Semester 2	12.50
EVSC90014 Environmental Risk Assessment	November	12.50
EVSC90015 Environmental Impact Assessment	Semester 1	12.50
GEOL90005 Hydrogeology/Environmental Geochemistry	Semester 1	12.50
GEOM90008 Foundations of Spatial Information	Semester 1	12.50
LAWS70068 Environmental Law	September	12.50
MAST40001 Research Philosophies and Statistics	Semester 1	12.50
MAST90007 Statistics for Research Workers	July	12.50
NRMT90004 Conservation Genetics	Not offered 2016	12.50
NRMT90007 Community Natural Resource Management	Semester 2	12.50
FRST90033 Farm Trees & Agroforestry	October	12.50
NRMT90014 Sustainable Landscapes	Semester 1	12.50
GEOG90021 Conservation and Cultural Environments	Semester 1	12.50
FRST90022 Forests and Water	September	12.50
ECON90016 Environmental Economics and Strategy	Semester 1	12.50
FRST90015 Forest Ecosystems	February	12.5
FRST90020 Silviculture & Forest Dynamics	May	12.5
FRST90021 Sustainable Forest Management	July	12.5
FRST90032 Forests, Carbon and Climate Change	June	12.5
FRST90016 Trees in a Changing Climate	October	12.5
FRST90019 Forest Assessment and Monitoring	May	12.5
FRST90030 Forests in the Asia Pacific Region	November	12.5
FRST90025 Bushfire & Climate	February	12.5
FRST90026 Bushfire & Biodiversity	April	12.5
FRST90031 Timber, Sustainable & Renewable Material	October	12.5

	DEVT90002 Internship in Development	January, Semester 1, Semester 2	12.5
	DEVT90008 International Internship in Development	January, Semester 1, Semester 2	25
	ENST70001 Environmental Research Proj (50 Long)	Semester 1, Semester 2	25
	ENST70002 Environmental Industry Research: 50 Long	Semester 1, Semester 2	25
	ENST90006 Environmental Research Review (12.5)	Semester 1, Semester 2	12.5
	ENST90007 Environmental Research Project (25)	Semester 1, Semester 2	25
	ENST90016 Environmental Research Project (50)	Semester 1, Semester 2	50
	ENST90020 Environmental Industry Research (50)	Semester 1, Semester 2	50
	ENST90024 Environmental Research Project - 25 Long	Semester 1, Semester 2	12.5
	ENST90025 Environmental Industry Research (25)	Semester 1, Semester 2	25
	ENST90026 Environmental Industry Research: 25 Long	Semester 1, Semester 2	12.5
	FRST90035 Forest Internship Project	Year Long	25
	FRST90034 Ecological Restoration	September	12.5
	GEOG90003 Integrated River & Catchment Management	Semester 1	12.5
	NRMT90002 Management of Plant and Animal Invasions	Semester 2	12.5
	VETS90016 Wildlife Management	Semester 1	12.5
	ENST90017 Environmental Policy Instruments	Semester 2	12.5
	ENST90032 Sustainability and Behaviour Change	Semester 1	12.5
	VETS50006 Epidemiology of Epidemics	February	12.5
	LING90002 Presenting Academic Discourse	Semester 1, Semester 2	12.5
	SCIE90017 Science and Technology Internship	Summer Term, Semester 1, Semester 2	12.5
Related Course(s):	Master of Environment Master of Environment		