Sustainable Forests

Year and Campus:	2014
Coordinator:	Dr Chris Weston, Department of Forest Ecosystem Science, MSLE
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Overview:	Sustainable Forests is offered as a major field of study in the Master of Environment degree. Forest landscapes and ecosystems have a massive impact on all our lives as evidenced by the 2009 bush fires in Victoria. The Sustainable Forests major looks at issues related to management of carbon, water, fire and biodiversity at landscape scales in relation to forests with a view to making them more sustainable. We study the challenges of fire management, the role of forests in climate change management, environmental policy and timber and non-timber production. Students in this specialisation will understand: biological, economic, social and environmental factors that impact on forests; the development of forest and natural resource management enterprises both in Australia and internationally; and carbon sequestration and water resource management. Students can expect to develop skills in forest ecosystem sciences; sustainable forest management; and the design, conduct and analysis of forestry research. Suitable for professionals and aspiring entrants to the forest and natural resource management sectors, we will prepare you for middle and upper management positions within the forest and natural resource management and provide a pathway to further study.

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:
	  # Exercise well developed judgement, adaptability and responsibility as a practitioner in an environmental discipline or professional field
	  # Plan and execute a substantial project in an area of environmental research or practice
	The Sustainable Forests major will prepare professionals and aspiring entrants to the forest and natural resource management sectors for management positions within the forest and natural resource management sectors by:
	# Developing knowledge, skills, understanding and competence in the area of forest ecosystem sciences;
	# Developing a thorough approach to forest sciences and sustainable forest management through an understanding of the biological, economic, social and environmental factors which shape the development of forest and natural resource management enterprises both in Australia and internationally, including climate change science and water resource management;

	# Increasing knowledge and analytical capabilities appropriate to forest and ecosystem science and related specialist disciplines; # Developing competence in the design, conduct and analysis of research questions and experimental work, particularly for those students interested in pursuing a research career; Extending scholarly and critical attitudes in forest and natural resource management disciplines.
Structure & Available Subjects:	Students will be required to complete the two core subjects, plus choose three subjects from the compulsory specialisation subject list. Students must also take at least 25 points of subjects from the compulsory capstone subjects – these subjects enable students to complete an independent project related to sustainable forest management. Students must also undertake electives to make up the balance of the award. The selection of electives is made in consultation with the Sustainable Forests major coordinator. A full list of subjects available within this specialisation can be found at **http://environment.unimelb.edu.au/courses/streams/sustainable_forests (http://environment.unimelb.edu.au/courses/streams/sustainable_forests)**
Subject Options:	**Core Subjects** Students must complete the following core subjects:

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

Compulsory Specialisation Subjects

Students must complete at least three of the following compulsory specialisation subjects:

Subject	Study Period Commencement:	Credit Points:
FRST90015 Forest Ecosystems	February	12.50
FRST90020 Silviculture & Forest Dynamics	July	12.50
FRST90021 Sustainable Forest Management	June	12.50
FRST90022 Forests and Water	September	12.50
FRST90026 Bushfire & Biodiversity	March	12.50
FRST90032 Forests, Carbon and Climate Change	June	12.50

Compulsory Capstone Experience Subject

Students must complete the following Capstone Subject:

Subject	Study Period Commencement:	Credit Points:
FRST90035 Forest Internship Project	Year Long	25

Elective Subjects

Students must make up the balance of the award from the list of elective subjects below:

Subject	Study Period Commencement:	Credit Points:
FRST90019 Forest Assessment and Monitoring	May	12.50
FRST90034 Ecological Restoration	September	12.50
ABPL90009 Participation and Negotiation	July	12.50
ATOC90002 Climate Affairs	Semester 2	12.50

	BIOL90002 Biometry	July	12.50
	BOTA90005 Flora of Victoria	February	12.50
	CVEN90019 Sustainable Water Resources Systems	Semester 2	12.50
	ECON90016 Environmental Economics and Strategy	Semester 1	12.50
	EDUC90006 Environmental Education	Semester 1	12.50
	ENST70001 Environmental Research Proj (50 Long)	Semester 1, Semester 2	25
	ENST90005 Environmental Policy	Semester 2	12.50
	ENST90006 Environmental Research Review (12.5)	Semester 1, Semester 2	12.50
	ENST90007 Environmental Research Project (25)	Semester 1, Semester 2	25
	ENST90016 Environmental Research Project (50)	Semester 1, Semester 2	50
	EVSC90014 Environmental Risk Assessment	November	12.50
	EVSC90020 Environmental Modelling	Semester 1	12.50
	FRST90016 Trees in a Changing Climate	November	12.50
	FRST90025 Bushfire & Climate	March	12.50
	FRST90030 Forests in the Asia Pacific Region	November	12.50
	FRST90031 Timber, Sustainable & Renewable Material	October	12.50
	GEOM90008 Foundations of Spatial Information	Semester 1	12.50
	HPSC90010 Environment and Knowledge	Not offered 2014	12.50
	LAWS70068 Environmental Law	September	12.50
	NRMT90004 Conservation Genetics	Not offered 2014	12.50
	ENST90024 Environmental Research Project - 25 Long	Semester 1, Semester 2	12.50
	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
	ENST90019 Contemporary Environmental Issues B	Semester 2	12.50
Related Course(s):	Master of Environment		