MC-FRSTES Master of Forest Ecosystem Science

Year and Campus:	2014 - Creswick, Parkville
CRICOS Code:	061123F
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Graduate/Postgraduate
Duration & Credit Points:	200 credit points taken over 24 months full time. This course is available as full or part time.
Coordinator:	Dr Christopher Weston
Contact:	**Melbourne School of Land & Environment Student Centre** Ground Floor, Melbourne School of Land and Environment (building 142) *Current Student Enquiries* Phone: 13 MELB (13 6352) Email: **13MELB@unimelb.edu.au (mailto:13MELB@unimelb.edu.au)** **Future Student Enquiries (https://nexus.unimelb.edu.au/NexusEnquiryForm.aspx?f=16755909770&m=573578&l=0&programcode=K01&sub=RE:%20RE:%20Forest%20Ecosystem%20Science&enquirytype=2)**
Course Overview:	The Master of Forest Ecosystem Science (MFES) is a two year (full-time) or part-time equivalent coursework degree that prepares students for careers in the forest and natural resource management sectors. Acceleration is possible by taking subjects in the summer, winter and semester breaks, subject to the School approval. Features of the MFES: # Taught mainly in intensive two-week blocks with supplementary off-campus study, allowing for greater flexibility for part-time or remote study, or more rapid completion # Incorporates internships with the forest sector for advanced industry experience and establishment of key networks for future employment # Includes some Commonwealth Supported Places (HECS) and Australian Fee paying places # Financial support may be available through government student support schemes (Centrelink), and other government and industry scholarships # Encourages study abroad and student exchange nationally and internationally # Draws on the research strengths of the Department of Forest and Ecosystem Science and benefits from collaborations within the Melbourne School of Land and Environment, the Faculty of Science, and forest management and forest science educators nationally and internationally # Provides graduates with key networks in the forest and ecosystem management sectors nationally and internationally
Learning Outcomes:	*Upon completion of this course, students will* # be able to demonstrate emonstrate advanced skills and knowledge in the design and implementation of forest ecosystem management # have developed a thorough knowledge of forest systems as a basis for developing sustainable forest management practices, and be able to effectively communicate the future effects of climate change and its relevance to forest science disciplines # understand the biological, economic, social and environmental factors that shape the development of forest and natural resource management enterprises both in Australia and internationally, including recent developments in biodiversity conversation, climate change science and water resource management # have developed advanced knowledge and analytical capabilities that enable novel solutions in forest ecosystem management including planted and natural forest settings # be able to independently critically analyse, integrate and interpret forest science data generated through novel research as a basis for recommending sustainable forest management actions # be able to effectively communicate, to a range of audiences, the environmental and functional values of forest ecosystems in the maintenance of healthy and vibrant human communities

Course Structure & Available Subjects:

Students entering the 200-point Master of Forest Ecosystem Science (MFES) program must complete 125 points of core discipline subjects including at least 25 points of project and 75 points of elective subjects.

The structure of the MFES allows students the flexibility to develop their own interests from a wide selection of subjects whilst developing essential forest ecosystem science skills and knowledge. The program also allows students the freedom to complete up to 25% of their subjects at another university in Australia or internationally.

Subject Options:

Core Discipline Subjects

You should choose 8 subjects (100 points) from the core list below:

Subject	Study Period Commencement:	Credit Points:
FRST90015 Forest Ecosystems	February	12.50
FRST90017 Bushfire Planning & Management	March	12.50
FRST90019 Forest Assessment and Monitoring	May	12.50
FRST90020 Silviculture & Forest Dynamics	July	12.50
FRST90021 Sustainable Forest Management	June	12.50
FRST90022 Forests and Water	September	12.50
FRST90034 Ecological Restoration	September	12.50
FRST90030 Forests in the Asia Pacific Region	November	12.50
FRST90032 Forests, Carbon and Climate Change	June	12.50
FRST90033 Farm Trees & Agroforestry	October	12.50
FRST90041 Forest Operations	Not offered 2014	12.50
FRST90016 Trees in a Changing Climate	November	12.50
FRST90026 Bushfire & Biodiversity	March	12.50
FRST90031 Timber, Sustainable & Renewable Material	October	12.50
FRST90073 Forest Planning and Business Management	August	12.50
FRST90025 Bushfire & Climate	March	12.50

Research Subjects:

Students must take a minimum of 25 points of research, with a maximum of 50 points of research subjects below.

Subject	Study Period Commencement:	Credit Points:
FRST90035 Forest Internship Project	Year Long	25
AGRI90070 Minor Research Project	Semester 1, Semester 2	25
AGRI90064 Minor Research Project	Semester 1, Semester 2	12.50
AGRI90072 Major Research Project	Semester 1, Semester 2	50
AGRI90065 Major Research Project	Semester 1, Semester 2	25
FRST90077 Long Research Project B	Semester 2	25

Electives

The remainder of your subject choices should be from the elective list below:

Subject	Study Period Commencement:	Credit Points:
AGRI90013 Financial Management for Agribusiness	September	12.50
MAST90008 Research Philosophies & Statistics	Semester 1	12.50
NRMT90003 Social Research Methods	Semester 1	12.50
AGRI90075 Research Methods For Life Sciences	Semester 1	12.50
NRMT90017 Leadership	February	12.50
MGMT90018 Psychology of HR Practice	Semester 1, Semester 2	12.50
NRMT90021 Project Management	June	12.50
NRMT90019 Business Strategy	February	12.50
EVSC90021 Public Values, Contested Landscapes	Not offered 2014	12.50
NRMT90007 Community Natural Resource Management	Semester 2	12.50

Or approved electives from:

* the Office of Environmental Programs Subject List

* within the Melbourne School of Land & Environment

* the University Handbook

* from another University nationally or internationally (up to 25% of total course)

Please note: Students are eligible to undertake either FRST90035 OR FRST90036

Entry Requirements:

1.The Selection Committee will evaluate the applicant's ability to pursue the course successfully using the following criteria:

an undergraduate degree in a cognate discipline with at least H3 (65%) average in the final year or equivalent; or
an undergraduate degree in any area including at least 25 points in one or more of Chemistry, Biology, Mathematics or Statistics, or equivalent, and with at least H3 (65%) average in the final year; or
an undergraduate degree in any area and a Graduate Certificate in Environment with at least H3 (65%) average in the Certificate, or
a two#year associate degree or diploma in a relevant discipline, at least five years documented, relevant professional experience, and an appropriate level of performance on a test conducted by the Selection Committee to confirm generic skills necessary for successful study in the program

2. The Selection Committee may conduct interviews and tests and may call for referee reports and employer references to elucidate any of the matters referred to above.

Note: The requirement for at least H3 (65%) average in each case may be waived where the applicant can demonstrate significant professional development in a relevant area since graduation.

Core Participation Requirements:

The Melbourne School of Land and Environment (MSLE) welcomes applications from students with disabilities. It is University and School policy to take reasonable steps to make reasonable adjustments so as to enable the student's participation in the School's programs. MSLE contributes to the New Generation degrees and offers a broad range of programs across undergraduate and post-graduate levels many of which adopt a multi-disciplinary approach. Students of the School's courses must possess intellectual, ethical, and emotional capabilities required to participate in the full curriculum and to achieve the levels of competence required by the School. Candidates must have abilities and skills in observation; motor in relevant areas; communication; in conceptual, integrative, and quantitative dimensions; and in behavioural and social dimensions. Adjustments can be provided to minimise the impact of a disability, however students need to be able to participate in the program in an independent manner

	and with regard to their safety and the safety of others. I. Observation: In some contexts, the student must be able to observe demonstrations and experiments in the basic and applied sciences. More broadly, observation requires reading text, diagrams, maps, drawings and numerical data. The candidate should be able to observe details at a number of scales and record useful observations in discipline dependant contexts. II. Communication: A candidate should be able to communicate with fellow students, professional and academic staff, members of relevant professions and the public. A candidate must be able to communicate effectively and sensitively. Communication includes not only speech but also reading and writing. III. Motor: Candidates should have sufficient motor function necessary for participation in the inherent discipline-related activities. The practical work, design work, field work, diagnostic procedures, laboratory tests, require varying motor movement abilities. Off campus investigations may include visits to construction sites, urban, rural and/or remote environments. IV. Intellectual-Conceptual, Integrative and Quantitative Abilities: These abilities include measurement, calculation, reasoning, analysis, and synthesis. Problem solving, the critical skill demanded of professionals in land and environment industries, requires all of these intellectual abilities. In addition, the candidate should be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. V. Behavioural and Social Attributes: A candidate must possess behavioural and social attributes that enable them to participate in a complex learning environment. Students are required to take responsibility for their own participation and learning. They also contribute to the learning of other students in collaborative learning environments, demonstrating interpersonal skills and an understanding of the needs of other students. Assessment may include the outcomes of tasks completed in collaboration with other students. Students who feel their disability will prevent them from meeting the above academic requirements are encouraged to contact the Disability Liaison Unit. http://www.services.unimelb.edu.au/disability
Further Study:	Progression Pathways to PhD The Master of Forest Ecosystem Science allows you to complete either the Forest Internship Project (FRST90035) of the Forest Research Project (FRST90036) to progress to a PhD.
Graduate Attributes:	The Melbourne Experience enables our Graduates to become: Academically excellent Have strong sense of intellectual integrity and the ethics of scholarship Have in-depth knowledge of their specialist discipline(s) Reach a high level of achievement in writing, generic research activities, problem-solving and communication Be critical and creative thinkers, with an aptitude for continued self directed learning Be adept at learning in a range of ways, including through information and communication technologies Knowledgeable across disciplines Examine critically, synthesise and evaluate knowledge across a broad range of disciplines Expand their analytical and cognitive skills through learning experiences in diverse subjects Have the capacity to participate fully in collaborative learning and to confront Unfamiliar problems Have a set of flexible and transferable skills for different types of employment. Leaders in communities Initiate and implement constructive change in their communities, including professions and workplaces Have excellent interpersonal and decision-making skills, including an awareness of personal strengths and limitations Mentor future generations of learners Engage in meaningful public discourse, with a profound awareness of community needs Attuned to cultural diversity Value different cultures Be well-informed citizens able to contribute to their communities wherever they Choose to live and work Have an understanding of the social and cultural diversity in our community Respect Indigenous knowledge, cultures and values Active global citizens Accept social and civic responsibilities Be advocates for improving the sustainability of the environment Have a broad global understanding, with a high regard for human rights, equality and ethics.
Professional Accreditation:	Graduates of the Master of Forest Ecosystem Science will be eligible for membership of the **Institute of Foresters Australia (http://www.forestry.org.au/)** and with further professional and practical experience to qualify as Registered Professional Foresters.
Generic Skills:	# A profound respect for truth, intellectual and professional integrity, and the ethics of scholarship # Capacity for independent critical thought, rational inquiry and self-directed learning and research # An ability to derive, interpret and analyse social, technical or economic information from primary and other sources # Awareness of and ability to utilise appropriate communication technology and methods for storage, management and analysis of data # Capacity for creativity and innovation through the application of skills and knowledge

	# Ability to integrate information across a relevant discipline to solve problems in applied situations # Highly developed computer-based skills to allow for effective on-line learning and communication # Highly developed written communication skills to allow informed dialogue with individuals and groups from industry, government and the community # Highly developed oral communication skills to allow informed dialogue and liaison with individuals and groups from industry, government and the community # Appreciation of social and cultural diversity from a regional to a global context # Ability to participate effectively as a member of a team # Ability to plan work, use time effectively and manage small projects
Links to further information:	http://www.land-environment.unimelb.edu.au/forestecosystemscience/
Notes:	Please note, the majority of the Master of Forest Ecosystem Science (MFES) subjects are taught at the Creswick campus and some are taught at the metropolitan campuses. Costs associated with accommodation and travel is at the students' own expense. For 2011, limited funding for student travel and accommodation costs to study the MFES is available. More information is available at **http://www.forests.unimelb.edu.au/scholarships.html (http://www.forests.unimelb.edu.au/scholarships.html)** .