

FRST90015 Forest Ecosystems

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2016, Creswick This subject commences in the following study period/s: February, Creswick - Taught on campus. Please note that this subject has a pre-teaching period. During this time students will be required to read the following: Chapters from Attiwill P. M. & Wilson B. (editors), Ecology: An Australian Perspective. 2nd Edition. 2006: Chapter 11: Carbon Flow, Energy Transformations, and Productivity Chapter 33: Forests Australia's State of the Forests Report 2013, Executive summary (www.daff.gov.au/ABARES/forestsaustralia/Documents/executive-summary_web2.pdf) The subject involves field work away from the Creswick Campus.
Time Commitment:	Contact Hours: 24 hours of lectures and discussions, 36 hours field work and practical exercises, delivered in a two-week intensive teaching block Total Time Commitment: 170 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	<p>For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry.</p> <p>It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability</p>
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Subject Overview:	An introduction to the forests and woodlands of southeastern Australia based on lectures and field visits to forests across a broad rainfall gradient. The subject aims to provide a sound theoretical and practical understanding of the major ecosystem processes in forests, including a focus on regeneration and recovery following both low- and high-intensity fire. Field visits to mallee, box-ironbark, <i>Eucalyptus</i> open forests and cool temperate rainforest and associated practical work will ensure that students obtain direct experience of a range of forest ecosystems. These field visits and associated lectures develop knowledge of state-of-the-art methods to analyse ecosystem processes, such as nutrient and carbon cycling, and also a functional appreciation of forest soils.
Learning Outcomes:	By the end of the subject students should: <ul style="list-style-type: none"> # Understand the ecosystem paradigm including energy flow, organic and inorganic transformation processes in forests # Have a broad understanding of relationships among vegetation types, climate and soils within forest ecosystems of south-eastern Australia # Understand the relevance of forests and forest soils in the global carbon cycle and the amelioration of global climate change

	<p># Have gained practical experience in the quantitative analysis of forest biomass, decomposition and respiration processes involved in nutrient and carbon cycling within forests, and between forest ecosystems and the atmosphere</p> <p># Be capable of critically evaluating management impacts on forest ecosystem processes maintaining water, air and soil quality.</p>
Assessment:	Progress exercises, 40% (1500 words), due 2 weeks after the intensive subject ends. Progress exercises are based on field trips and revision of lectures and fieldwork discussion. Major assignment, 60% (3500 words), due 7 weeks after the intensive subject ends.
Prescribed Texts:	Costermans, L. Native Trees and Shrubs of South-Eastern Australia OR Costermans, L. Trees of Victoria and Adjoining Areas
Recommended Texts:	Attwill P. M. & Wilson B. (editors), <i>Ecology: An Australian Perspective</i> . 2nd Edition. 2006
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Links to further information:	http://graduate.science.unimelb.edu.au/master-of-forest-ecosystem-science
Related Course(s):	<p>Graduate Certificate in Bushfire Planning and Management</p> <p>Graduate Diploma in Bushfire Planning and Management</p> <p>Graduate Diploma in Forest Systems Management</p> <p>Master of Forest Ecosystem Science</p> <p>Master of Urban Horticulture</p>
Related Majors/Minors/Specialisations:	<p>Conservation and Restoration</p> <p>Honours Program - Forest Science</p> <p>Master of Science (Ecosystem Science) - Discipline Elective subjects</p> <p>Sustainable Forests</p> <p>Sustainable Forests</p> <p>Tailored Specialisation</p> <p>Tailored Specialisation</p>