

# 517-AA Master of Wood Science

<b>Year and Campus:</b>	2008
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Level:</b>	Graduate/Postgraduate
<b>Duration &amp; Credit Points:</b>	
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<b>Course Overview:</b>	This degree provides advanced research training in wood science.
<b>Objectives:</b>	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> <li># to allow candidates to undertake original research into wood quality; the biodegradation of wood; wood treatment; wood drying; environmental energy; chemical processing of waste wood; panel products; solid wood processing; non wood forest products or timber engineering;</li> <li># to make a distinct contribution to knowledge;</li> <li># to advance appropriate research methodology;</li> <li># to improve communication of research findings</li> </ul>
<b>Course Structure &amp; Available Subjects:</b>	<p><b>Areas of specialisation in Wood Science include:</b></p> <p><b>Wood Quality</b> Fibre properties, chemical composition of the wood cell wall and variation in morphological attributes within and between trees and species and their influence on wood properties and utilisation for pulp and paper, solid wood and composite wood products.</p> <p><b>Biodegradation</b> The development of sapstain and decay in wood and wood products; mechanism of action and failure of wood preservatives; biology of termites.</p> <p><b>Wood Treatment</b> Factors affecting the permeability of wood; techniques for improving the permeability of refractory wood species; vapour phase, liquid phase and solid phase application of preservative compounds.</p> <p><b>Wood Drying</b> Modelling the stress development drying and conditioning process associated with wood drying. Modelling the application of microwave technology.</p> <p><b>Environmental, Energy and Chemical Processing of Waste Wood</b> Characterisation and control of toxic emissions; chemical processing of wood waste; pyrolysis.</p> <p><b>Panel Products</b> Processing and performance of wood-based panel products for structural and exterior applications.</p> <p><b>Solid Wood Processing</b> Influence of wood quality attributes on solid wood processing; stress characterisation and cutting technology; farm forestry utilisation.</p> <p><b>Non-Wood Forest Products</b> Chemical characterisation, storage and processing of non-wood forest products.</p> <p><b>Timber Engineering</b> Structural utilisation of wood and wood based products; characterisation of performance attributes; design durability</p>

<b>Entry Requirements:</b>	Admission to candidature is carried out subsequent to the completion of an undergraduate degree in a relevant area (Science, Engineering or Forest Science) or the Graduate Diploma in Forest Industries or equivalent.
<b>Core Participation Requirements:</b>	It is the University policy to take all steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a students participation in the university's programs. This course requires all students to enrol in subjects where they must actively and safely contribute to laboratory activities and field trips. Students who feel their disability will impact on meeting this requirement are encouraged to discuss this matter with the Subject Coordinator and Disability Liason Unit.
<b>Graduate Attributes:</b>	Attributes of Melbourne Research Masters Graduates Research Masters degrees at the University of Melbourne seek to develop graduates who have a capacity for defining and managing a research project characterised by originality and independence. Their training equips them for more sustained and original work at the doctoral level or for applied research positions in a wide variety of contexts.
<b>Generic Skills:</b>	<p><b>The University expects its research Masters graduates to have the following qualities and skills:</b></p> <ul style="list-style-type: none"> <li># an ability to initiate research projects and to formulate viable research questions;</li> <li># a demonstrated capacity to design, conduct and report independent and original research on a closely-defined project;</li> <li># an ability to manage time to maximise the quality of research;</li> <li># an understanding of the major contours of international research in the research area;</li> <li># a capacity for critical evaluation of relevant scholarly literature;</li> <li># well-developed and flexible problem-solving abilities appropriate to the discipline;</li> <li># the ability to analyse research data within a changing disciplinary environment;</li> <li># the capacity to communicate effectively the results of research and scholarship by oral and written communication;</li> <li># an understanding of and facility with scholarly conventions in the discipline area;</li> <li># a profound respect for truth and intellectual integrity, and for the ethics of research and scholarship;</li> <li># a capacity to cooperate with other researchers;</li> <li># an ability to manage information effectively, including the application of computer systems and software where appropriate to the student's field of study.</li> </ul>
<b>Notes:</b>	<p><b>Assessment</b></p> <p>Candidates are normally assessed by examination of a research thesis submitted at the conclusion of their studies. Assessment is in accordance with the procedures documented in the Masters (by Research) Generic Guidelines published by the School of Graduate Studies. <a href="http://www.gradstudies.unimelb.edu.au/pgstudy/MastersGenericGuidelines.pdf">www.gradstudies.unimelb.edu.au/pgstudy/MastersGenericGuidelines.pdf</a></p> <p>In FLFR, the Masters degree is awarded simply as a 'Pass' once all requirements of the examination process have been met. In addition, examiners are asked to select a numeric grade for the thesis for the purposes of assisting subsequent scholarship applications that FLFR Masters graduates may submit to support their study toward the degree of PhD. The numeric grade does not appear on the University testamur or on the student's official record. It is held in the Faculty Graduate Studies Office and students may request that this information is removed from their Faculty file if they so wish.</p>