

220-501 Wood Quality

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: November, - Taught on campus. Intensive teaching mode
Time Commitment:	Contact Hours: Equivalent of twenty-four hours lectures and 36 hours practical work and field trips. Delivered in a two week teaching block. Total Time Commitment: Not available
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	<p><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></p>
Coordinator:	Prof Peter Vinden
Subject Overview:	This subject provides students with advanced concepts in wood quality, the origin and cause of wood defects, their distribution in the tree and impact on wood properties. Wood quality attributes are defined together with a description of the systematic variation of wood properties within and between trees. Students will develop an understanding of wood as a complex material and factors responsible for its characteristics including density, moisture content, shrinkage and swelling. Students are given an in depth knowledge of the impact of environmental and genetic manipulation of wood quality attributes; how silvicultural techniques can be used to manage wood quality in softwood and hardwood plantations and the concepts of managing forests to end-user requirements. Students are introduced to quality surveys of forests, commercial techniques for measuring quality and log grading.
Objectives:	<p>On completion of this subject students should have a practical knowledge of:</p> <ul style="list-style-type: none"> # The important wood quality attributes and how they vary within and between trees # Defects that arise in the tree and how they are measured # Forest management systems and how they can influence wood quality and the impact of wood quality on solid wood processing # Derive equations for basic, oven-dry, air dry and green density of wood, wood moisture content, void volume and percentage saturation, and apply laboratory method for their determination. # Understand the elements of undertaking a wood quality survey.
Assessment:	Completion of an assignment on wood quality, involving either a literature review or laboratory research project. Project proposal (500 words) 5%, Report (4000 words) 65%, Presentation 10%, Work book and laboratory book (2000 words) 20%
Prescribed Texts:	Course notes will be provided

Recommended Texts:	Zobel, B.J. and Buijtenen (1989) <i>Wood Variation: Its causes and control</i> . Springer Verlag, Heidelberg.
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://www.forests.unimelb.edu.au/subjects.html
Related Course(s):	Master of Forest Ecosystem Science