FRST90031 Timber in the Built Environment

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2010, Burnley This subject commences in the following study period/s: June, Burnley - Taught on campus. Intensive teaching mode
Time Commitment:	Contact Hours: Equivalent of 24 hours lectures and 36 hours practical work, 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:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Coordinator:	Assoc Prof Barbara Ozarska
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Subject Overview:	The molecular revolution is increasingly affecting the way we understand and manage our natural systems. This subject delivers a detailed examination of the developmental and molecular basis of tree growth, with specific focus on tree life cycles, reproductive biology and wood formation. In this subject students will explore how this knowledge can be applied in forested land management to support tree improvement and ecosystem management. The practical component aims to provide students with exposure to a sub-set of molecular and microscopic technical skills including the use of botanical micro-techniques and the more common molecular tools. Technical and socio-economic challenges will be critically discussed and evaluated. This subject has been designed to target students with forestry, land management, science and biochemistry backgrounds, but will be invaluable for any student who wishes to expand their understanding of the role trees play in terrestrial ecosystems and for the forest industry.
Objectives:	On completion of this subject students should have a practical knowledge of: # Have a good understanding of tree development, wood formation and wood quality determination # Have a basic understanding of plant molecular biology # Appreciate the molecular basis of tree morphology, development and anatomy # Know about methods for and implications of biotechnological modification of tree characteristics # Understand the importance of the application of modern approaches in forest management and research # Be familiar with the most recent developments in tree biotechnology and its application

	# Have acquired some basic skills in the use of molecular tools and botanical micro-techniques
Assessment:	Completion of an assignment for example a literature review or project relating to the practical application environmental reporting or design of a timber structure. 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:	*Timber Engineering Step 1. Basis of design, material properties, structural components and joints*. First Edition, Centrum Hout, The Netherlands. *Timber Engineering Step 2. Design - Details and structural system.*First Edition, Centrum Hout, The Netherlands. *Wood Handbook. Wood as an Engineering Material*. US Department of Agriculture, Forest Products Laboratory. Ag. Handbook No. 72.
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 Environment Master of Environment Master of Forest Ecosystem Science Postgraduate Certificate in Environment Postgraduate Diploma in Environment
Related Majors/Minors/ Specialisations:	Sustainable Forests