

FRST90031 Sustainable & Renewable Forest Products

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2012.
Time Commitment:	Contact Hours: Equivalent of 24 hours of lectures and 36 hours of practical work, delivered in a 7 day 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/
Contact:	<p>Melbourne School of Land & Environment Student Centre Ground Floor, Land & Food Resources (building 142)</p> <p><i>Enquiries</i> Phone: 13 MELB (13 6352) Email: 13MELB@unimelb.edu.au (mailto:13MELB@unimelb.edu.au)</p>
Subject Overview:	<p>This subject introduces students to various concepts of sustainable and renewable timber products including timber engineering, design durability, manufactured wood products, biomass waste utilization and recycling, environmental considerations in timber use and more. A major focus will be placed on environmental aspects of the use of timber as a building material and the role of timber in ecologically sustainable design. Students will be introduced to concepts in:</p> <ul style="list-style-type: none"> # Environmental properties of timber and the role of forest products in climate change # Utilisation of young plantation timber resources # Timber engineering, including physical and mechanical properties of wood, visual and machine stress grading, fasteners and connectors # Design durability, including wood permeability, wood preservation and termite control # Surface coatings, gluing properties and adhesion # Engineered wood products # The use of timber in internal and external applications # Design of structures, the role of industrial design, 3R design concept (design for Reduce, Reuse and Recycle) # Biomass waste utilisation and recycling # Forest industries and their role in developing economies.
Objectives:	<p>On completion of this subject students should have a practical knowledge of:</p> <ul style="list-style-type: none"> # The concepts in sustainability # Continuous environmental improvement # Options in biomass utilisation and reuse of products # Cradle to grave analysis # Timber engineering # Design durability # The design of timber structures

	<ul style="list-style-type: none"> # Green star rating system in buildings # Forest industries and their role in economic development
Assessment:	Participation in practical exercises (20%), Literature review assignments - 2,000 words (30%), Major assignment - 3,500 words (50%).
Prescribed Texts:	Course notes will be provided
Recommended Texts:	<ul style="list-style-type: none"> # <i>Timber Engineering Step 1. Basis of design, material properties, structural components and joints.</i> First Edition, Centrum Hout, The Netherlands. # <i>Timber Engineering Step 2. Design - Details and structural system.</i> First Edition, Centrum Hout, The Netherlands. # <i>Wood Handbook. Wood as an Engineering Material.</i> 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 Forest Ecosystem Science
Related Majors/Minors/Specialisations:	Sustainable Forests