220-504 Trees, Genes & Environment

Credit Points:	12.500
Level:	Graduate/Postgraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 2, - Taught on campus. Intensive teaching mode
Time Commitment:	Contact Hours: Twenty-four hours lectures and 36 hours practical work 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 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. 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
Coordinator:	Dr G Bossinger
Subject Overview:	This subject provides insights into the developmental and molecular basis of tree growth, wood formation and tolerance to environmental stress and explores how this knowledge can be used in support of tree improvement and forest management efforts. Within practicals students will have the opportunity to acquire a limited set of technical skills and will be exposed to the use of basic botanical micro-techniques and common molecular tools. Technical and socio-economic challenges will be critically discussed and evaluated. On completion of this subject, students should: • have a good understanding of tree development and wood formation; • 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 molecular aspects of biodiversity; • comprehend the importance of environmental triggers in tree development; • 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. Subject content includes: • life cycles and tree development; • basic tree molecular biology; • molecular aspects of wood quality, flowering and tree responses to environmental stresses; • forest biotechnology

Assessment:	Two assignments (each 2000 words, total 40%), one oral presentation (20%) and three-hour examination (40%).
Prescribed Texts:	None
Recommended Texts:	A comprehensive lsit of relevant articles in the primary literature will be made available on the LMS
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