

## FRST90019 Forest Resource Assessment

<b>Credit Points:</b>	12.50
<b>Level:</b>	9 (Graduate/Postgraduate)
<b>Dates &amp; Locations:</b>	2010, Creswick This subject commences in the following study period/s: March, Creswick - Taught on campus. Intensive teaching, Creswick
<b>Time Commitment:</b>	Contact Hours: 24 hours of lectures, 24 hours practical work and excursions delivered in a two-week intensive teaching block Total Time Commitment: 120 hours
<b>Prerequisites:</b>	None
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	None
<b>Non Allowed Subjects:</b>	None
<b>Core Participation Requirements:</b>	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: <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a>
<b>Coordinator:</b>	Dr Julian C. Fox
<b>Contact:</b>	Course Administrator, Master of Forest Ecosystem Science, Phone: +61 3 5321 4300 Fax: +61 3 5321 4166 Email: <a href="mailto:forests-info@unimelb.edu.au">forests-info@unimelb.edu.au</a> ( <a href="mailto:forests-info@unimelb.edu.au">mailto:forests-info@unimelb.edu.au</a> )
<b>Subject Overview:</b>	<p>This subject promotes student understanding of the art and science of forest resource management by focusing on the issues involved in quantitative assessment of trees and forests. Specifically, the aim is to:</p> <ul style="list-style-type: none"> <li># Present the state of the art and methodologies applicable to forest resource assessments for timber, carbon and wildlife</li> <li># Present methods for formulation and planning an effective and efficient resource assessment</li> <li># Enable participants to implement a modern resource assessment and determine the advantages and disadvantages of available systems</li> <li># Enable participants to process assessment data to determine reliable estimates and confidence limits</li> </ul> <p>Topics include: introduction to sampling theory, issues involved in effectively designing a forest assessment, modern mensuration tools and techniques, Geographic Information Systems (GIS), and remote sensing</p>
<b>Objectives:</b>	<p>This subject will provide students with an advanced understanding of:</p> <ul style="list-style-type: none"> <li># The role of forest assessment in planning native forest and plantation resource management for both wood and non-wood values</li> <li># The use of standard equipment to estimate tree and stand parameters such as diameter, basal area, height, standing volume, bark and crown, stem geometry, stem analysis and defects</li> <li># The use of standard equipment to measure non-wood values such as carbon and wildlife</li> <li># Sources of assessment errors and their significance</li> <li># Use of aerial photographs, remote sensing and GIS in forest inventories and project management</li> <li># Assessment project planning and logistics, costs and implementation issues and project management tools</li> </ul>

	# Advanced statistical techniques of design and sampling for inventory
<b>Assessment:</b>	Major exercise (40%), report (20%), workbook of practical exercises (40%)
<b>Prescribed Texts:</b>	None
<b>Recommended Texts:</b>	<p>P A Burrough, <i>Principles of Geographical Information Systems for Land Resources Assessment</i>.</p> <p>M S Philip, <i>Measuring Trees and Forests</i>.</p> <p>Avery, Thomas Eugene and Burkhart, Harold E. <i>Forest Measurements</i>, (5th ed). McGraw-Hill. (2002)</p>
<b>Breadth Options:</b>	This subject is not available as a breadth subject.
<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>Links to further information:</b>	<a href="http://www.forests.unimelb.edu.au/subjects.html">http://www.forests.unimelb.edu.au/subjects.html</a>
<b>Related Course(s):</b>	Bachelor of Forest Science (Honours) Master of Forest Ecosystem Science