

## FRST90019 Forest Assessment and Monitoring

<b>Credit Points:</b>	12.50
<b>Level:</b>	9 (Graduate/Postgraduate)
<b>Dates &amp; Locations:</b>	2011, Creswick This subject commences in the following study period/s: February, 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>	<b>Melbourne School of Land &amp; Environment Student Centre</b> Ground Floor, Land & Food Resources (building 142) <i>Enquiries</i> Phone: 13 MELB (13 6352) Email: <a href="mailto:13MELB@unimelb.edu.au">13MELB@unimelb.edu.au</a> ( <a href="mailto:13MELB@unimelb.edu.au">mailto:13MELB@unimelb.edu.au</a> )
<b>Subject Overview:</b>	This subject promotes student understanding of quantitative assessment of forest carbon, timber and biodiversity. Specifically, the aim is to: <ul style="list-style-type: none"> <li># Present the state of the art of forest assessment for carbon, timber and biodiversity</li> <li># Present methods for formulation and planning an effective and efficient forest assessment</li> <li># Enable participants to implement a modern assessment and determine the advantages and disadvantages of available systems</li> <li># Enable participants to analyse assessment data to determine reliable estimates and confidence limits</li> </ul> <p>Topics include: introduction to statistics and sampling theory, issues in forest assessment design, modern measurement tools and techniques, Geographic Information Systems (GIS), remote sensing, and specific techniques for assessment of carbon, timber and biodiversity. Many examples of forest assessment are provided.</p>
<b>Objectives:</b>	This subject will provide students with an advanced understanding of: <ul style="list-style-type: none"> <li># The role of assessment in forest management</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 carbon and biodiversity</li> <li># Sources of assessment errors and their significance</li> </ul>

	<ul style="list-style-type: none"> <li># Use of aerial photographs, remote sensing and GIS in forest assessment and project management</li> <li># Assessment project planning and logistics, costs and implementation issues and project management tools</li> <li># Statistical techniques for sampling design and analysis</li> </ul> <p>At subject completion students should be able to design and implement a forest assessment.</p>
<b>Assessment:</b>	Major assignment (40%), Literature review (20%), Progress exercises (40%)
<b>Prescribed Texts:</b>	J Fowler, L Cohen and P Jarvis, Practical Statistics for Field Biology.
<b>Recommended Texts:</b>	<ul style="list-style-type: none"> <li># P Burrough, <i>Principles of Geographical Information Systems for Land Resources Assessment</i>.</li> <li># M S Philip, <i>Measuring Trees and Forests</i>.</li> </ul>
<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