

## BOTA30002 Plant Systematics and Evolution

<b>Credit Points:</b>	12.50									
<b>Level:</b>	3 (Undergraduate)									
<b>Dates &amp; Locations:</b>	2011, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus. Lectures and practical work									
<b>Time Commitment:</b>	Contact Hours: 2 x one hour lectures per week, 24 hours practical work during the semester, one-day excursion Total Time Commitment: Estimated total time commitment of 120 hours									
<b>Prerequisites:</b>	One of <table border="1" data-bbox="387 600 1485 804"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BOTA20002 Plant Biodiversity</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>BOTA20004 Flora of Victoria</td> <td>February</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	BOTA20002 Plant Biodiversity	Semester 2	12.50	BOTA20004 Flora of Victoria	February	12.50
Subject	Study Period Commencement:	Credit Points:								
BOTA20002 Plant Biodiversity	Semester 2	12.50								
BOTA20004 Flora of Victoria	February	12.50								
<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 applications for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005) and Students Experiencing Academic Disadvantage Policy, this subject requires all students to actively and safely participate in practical work. Students who feel their disability may impact upon their participation are encouraged to discuss this with the Subject Coordinator and the Disability Liaison Unit. <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a>									
<b>Coordinator:</b>	Dr Mike Bayly									
<b>Contact:</b>	School of Botany <b><a href="mailto:botany-enquiries@unimelb.edu.au">botany-enquiries@unimelb.edu.au</a></b> ( <a href="mailto:%20botany-enquiries@unimelb.edu.au">mailto:%20botany-enquiries@unimelb.edu.au</a> )									
<b>Subject Overview:</b>	This subject will introduce the general principles and modern methods of systematics: how to discover the phylogeny (relationships) of organisms using both morphological characters and molecular (DNA) data; how to use this information to improve the classification systems of plants; how to study aspects of evolution, coevolution and historical biogeography; and how to integrate information from living and fossil plants to discover the past and date evolutionary events. Examples of the diversity and evolution of Australian plants - both fossil and living forms - will be used throughout this subject. Topics studied include: <ul style="list-style-type: none"> <li># numerical methods in systematics, phenetics and cladistics;</li> <li># evolution of vascular plants, especially flowering plants;</li> <li># fossils;</li> <li># historical biogeography and evolution of the Australian flora.</li> </ul>									
<b>Objectives:</b>	At the completion of the subject, students should gain: <ul style="list-style-type: none"> <li># a knowledge of modern methods of phylogenetic systematics, including the application of morphological and molecular data;</li> <li># skills in analysing systematic data, including the use of computer interactive programs; and</li> </ul>									

	# a knowledge of the evolution and diversity of Australian flora, both living and fossil groups of plants.
<b>Assessment:</b>	A 2000 word practical report (20%) due during the semester; a 15-minute oral presentation and 1000 word written report (15%) at the end of semester; a 3-hour written examination in the examination period (65%).
<b>Prescribed Texts:</b>	None
<b>Breadth Options:</b>	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> <li># <b>Bachelor of Arts</b> (<a href="https://handbook.unimelb.edu.au/view/2011/B-ARTS">https://handbook.unimelb.edu.au/view/2011/B-ARTS</a>)</li> <li># <b>Bachelor of Commerce</b> (<a href="https://handbook.unimelb.edu.au/view/2011/B-COM">https://handbook.unimelb.edu.au/view/2011/B-COM</a>)</li> <li># <b>Bachelor of Environments</b> (<a href="https://handbook.unimelb.edu.au/view/2011/B-ENVS">https://handbook.unimelb.edu.au/view/2011/B-ENVS</a>)</li> <li># <b>Bachelor of Music</b> (<a href="https://handbook.unimelb.edu.au/view/2011/B-MUS">https://handbook.unimelb.edu.au/view/2011/B-MUS</a>)</li> </ul> <p>You should visit <a href="http://breadth.unimelb.edu.au/breadth/info/index.html">learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)</a> and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>
<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>Notes:</b>	<p>This subject is available for science credit to students enrolled in the BSc (both pre-2008 and new degrees), BASc or a combined BSc course.</p> <p>Previously known as 606-303 Systematics of Plants and Fungi (prior to 2008)</p> <p>Previously known as Botany Systematics and Evolution (prior to 2005)</p>
<b>Related Course(s):</b>	Bachelor of Science
<b>Related Majors/Minors/Specialisations:</b>	<p>Botany (pre-2008 Bachelor of Science)</p> <p>Ecology and Evolutionary Biology</p> <p>Genetics</p> <p>Plant Science</p> <p>Science credit subjects* for pre-2008 BSc, BASc and combined degree science courses</p>