

## BOTA30002 Plant Systematics and Evolution

<b>Credit Points:</b>	12.50
<b>Level:</b>	3 (Undergraduate)
<b>Dates &amp; Locations:</b>	2010, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus. Lectures and practical work, including a one day excursion
<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 # <b>606-201 Plant Biodiversity (/view/2010/606-201)</b> # <b>606-207 Flora of Victoria (/view/2010/606-207)</b>
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	None
<b>Non Allowed Subjects:</b>	None
<b>Core Participation Requirements:</b>	It is University policy to take all reasonable steps to minimise the impact of disability upon academic study and reasonable steps will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact upon their active and safe participation in a subject are encouraged to discuss this with the relevant subject coordinator and the Disability Liaison Unit.
<b>Coordinator:</b>	Prof Pauline Ladiges
<b>Contact:</b>	School of Botany
<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 and fungi; 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 and fungi - both fossil and living forms - will be used throughout this subject. Topics studied include:  # homology and form;  # numerical methods in systematics, phenetics and cladistics;  # historical biogeography;  # evolution of vascular plants, especially gymnosperms and angiosperms;  # fossils;  # fungi.
<b>Objectives:</b>	At the completion of the subject, students should gain:  # a knowledge of modern methods of phylogenetic systematics, including the application of morphological and molecular data;  # skills in analysing systematic data, including the use of computer interactive programs; and

	# a knowledge of the evolution and diversity of Australian flora, both living and fossil groups of plants and fungi.
<b>Assessment:</b>	A 1500-word essay (15%) and a 2000 word practical report (15%) due during the semester; a 3-hour written examination in the examination period (70%).
<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><u>Bachelor of Arts</u></b> (<a href="https://handbook.unimelb.edu.au/view/2010/B-ARTS">https://handbook.unimelb.edu.au/view/2010/B-ARTS</a>)</li> <li># <b><u>Bachelor of Commerce</u></b> (<a href="https://handbook.unimelb.edu.au/view/2010/B-COM">https://handbook.unimelb.edu.au/view/2010/B-COM</a>)</li> <li># <b><u>Bachelor of Environments</u></b> (<a href="https://handbook.unimelb.edu.au/view/2010/B-ENVS">https://handbook.unimelb.edu.au/view/2010/B-ENVS</a>)</li> <li># <b><u>Bachelor of Music</u></b> (<a href="https://handbook.unimelb.edu.au/view/2010/B-MUS">https://handbook.unimelb.edu.au/view/2010/B-MUS</a>)</li> </ul> <p>You should visit <b>learn more about breadth subjects</b> (<a href="http://breadth.unimelb.edu.au/breadth/info/index.html">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</p> <p>Ecology and Evolutionary Biology</p> <p>Genetics</p> <p>Plant Science</p>