

BOTA30002 Plant Systematics and Evolution

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	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
Time Commitment:	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
Prerequisites:	One of # 606-201 Plant Biodiversity (/view/2010/606-201) # 606-207 Flora of Victoria (/view/2010/606-207)
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	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.
Coordinator:	Prof Pauline Ladiges
Contact:	School of Botany
Subject Overview:	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.
Objectives:	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.
Assessment:	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%).
Prescribed Texts:	None
Breadth Options:	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> # Bachelor of Arts (https://handbook.unimelb.edu.au/view/2010/B-ARTS) # Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2010/B-COM) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2010/B-ENVS) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2010/B-MUS) <p>You should visit learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html) and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Notes:	<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>
Related Course(s):	Bachelor of Science
Related Majors/Minors/Specialisations:	<p>Botany</p> <p>Ecology and Evolutionary Biology</p> <p>Genetics</p> <p>Plant Science</p>