606-303 Plant Systematics and Evolution

Credit Points:	12.500
Level:	Undergraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 1, - Taught on campus.
Time Commitment:	Contact Hours: 24 lectures (two per week), 24 hours practical work, one-day excursion Total Time Commitment: 120 hours
Prerequisites:	Botany 606-202 or 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 P Ladiges, Dr M Bayly
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. 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:	This subject is a level 2 or level 3 subject and is not available to new generation degree students as a breadth option in 2008. This subject or an equivalent will be available as breadth in the future. Breadth subjects are currently being developed and these existing subject details can be used as guide to the type of options that might be available. 2009 subjects to be offered as breadth will be finalised before re-enrolment for 2009 starts in early October.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Notes:	Students enrolled in the BSc (pre-2008 BSc), BASc or a combined BSc course will receive science credit for the completion of this subject. Previously known as 606-303 Systematics of Plants and Fungi and 606-303 Botany Systematics and Evolution.
Related Course(s):	Bachelor of Arts and Bachelor of Science Bachelor of Arts and Sciences Bachelor of Science