606-306 Plant Molecular Biology & Biotechnology

Credit Points:	12.500
Level:	Undergraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: 24 lectures and 24 hours of practical work Total Time Commitment: 120 hours
Prerequisites:	Botany 606-205 or Biochemistry 521-211.
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 A Bacic
Subject Overview:	This subject will examine the aspects of molecular and cellular biology and biochemistry that contribute unique properties to plants, and current techniques for their investigation and manipulation in biotechnology including genetic engineering and plant transformation. The subject includes cellular and molecular processes underlying the regulation of basic plant functions, including the responses of plants to biotic and abiotic stress; a detailed knowledge of structure and functions of plant lipids and of cell wall carbohydrates; an insight into cell-cell recognition during the response to pathogens and symbionts; and an understanding of the organisation of the genome in plants and its modification by biotechnology. By the end of the subject, the student should have acquired an overall appreciation of the application of biotechnology to agriculture, horticulture, forestry and the food industry.
Assessment:	A written assignment of no more than 2000 words due during the semester (15%); a 20-minute oral presentation and 2-page written report during the semester (5%); practical reports totalling no more than 30 pages due during the semester (30%); a 2-hour written examination in the examination period (50%).
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.
Related Course(s):	Bachelor of Arts and Bachelor of Science Bachelor of Arts and Sciences Bachelor of Biomedical Science Bachelor of Science