

BOTA20001 Plants and the Environment

Credit Points:	12.50
Level:	2 (Undergraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 2 x one hour lectures per week, 1 x three hour practical class per week Total Time Commitment: Estimated total time commitment of 120 hours
Prerequisites:	650-141 Biology of Cells and Organisms (/view/2010/650-141)
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	Students may only gain credit for one of # 606-201 Plants and the Environment # 208-293 Plant Growth Processes (/view/2010/208-293)
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 Ian Woodrow
Contact:	School of Botany
Subject Overview:	This subject examines the interaction between plants and the changing physical environment. More specifically, it explores how the environment affects plant function and structural development, and how plants themselves can alter the environment. Emphasis is given to environmental issues of importance in Australia. Topics will be selected from the following: # Water - uptake, loss and stress responses; # Environmental pollution - responses and remediation using plants; # Salinity - tolerance and stress responses, management with plants; # Soil acidity - aluminium toxicity, affects on plants; # Carbon - productivity, carbon crediting, climate change; # Nutrients - uptake mechanisms and metabolic requirements; # Fuels – biofuel; and biohydrogen production; # Air - gas exchange in plants, artificial environments; # Natural designs - the development and diversity of plant structure.
Objectives:	At the completion of the subject students should have: # A knowledge of plant structure and function in relation to the physical environment; # A knowledge of how plants can be used to solve environmental problems; # A knowledge of environmental issues that affect plant function in Australia; and # Skills in laboratory-based experimental plant science.
Assessment:	Four practical assignments (up to 3000 words in total) evenly spaced through the semester (35%); a 3-hour written examination in the examination period (65%).
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"> # <u>Bachelor of Arts</u> (https://handbook.unimelb.edu.au/view/2010/B-ARTS) # <u>Bachelor of Commerce</u> (https://handbook.unimelb.edu.au/view/2010/B-COM) # <u>Bachelor of Environments</u> (https://handbook.unimelb.edu.au/view/2010/B-ENVS) # <u>Bachelor of Music</u> (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:	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.
Related Course(s):	Bachelor of Science