606-203 Phytoplankton and Seaweeds of Australia

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) and 24 hours practical work (one 2-hour practical class per week) Total Time Commitment: 120 hours
Prerequisites:	Biology 650-141 and 650-142 (prior to 2004: 600-141 and 600-142).
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	Not available for students who have completed 606-202 prior to 2002.
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:	Dr R Wetherbee, Dr J Carey
Subject Overview:	This subject introduces the major groups of the kingdom Protista, concentrating on their diversity, structure, biology, systematic relationships and evolution. Emphasis is placed on Australian species. Topics covered include: # the classification, morphology and cytology of the protistan phyla: 1) the macroscopic green, brown and red seaweeds; 2) the microalgal and phytoplankton classes: diatoms, dinoflagellates, chlorophytes, chrysophytes and other lesser-known but ecologically and phylogenetically significant groups; # the evolutionary history of protistan organisms; # the economic impacts, positive and negative, of algal organisms; and # the importance of algae to biodiversity and marine ecosystems. After completion of the subject, students will have acquired a knowledge and appreciation of: # the variety and classification of algae and other protists; # the extraordinary richness and biodiversity of southern Australian marine macroalgae; # techniques for identifying macroscopic and microscopic algal organisms; # modern cytological research and the ultrastructural, biochemical and molecular approaches to algal study; # the pivotal roles that ancient bacterial and photosynthetic organisms have played in the evolution of mitochondria and chloroplasts; # how to set up and use dissecting and phase-contrast compound microscopes; and # how to interpret and draw important features of cells and organisms.
Assessment:	Two 2-hour laboratory examinations during the semester (20% each); a 3-hour written examination in the examination period (60%).

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. This subject is required for a marine biology major.