

654-204 Ecology: Individuals and Populations

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 a week) and 27 hours practical work plus a full day excursion Total Time Commitment: 120 hours
Prerequisites:	Biology 650-141 and 650-142; or 650-131 and 650-132 (prior to 2004: biology 600-141 and 600-142; or 600-131 and 600-132); or geography 121-012 and 121-013.
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:	Dr G Coulson; Dr B Downes; Dr P Vesk
Subject Overview:	<p>By the completion of this subject, students should have an appreciation of:</p> <ul style="list-style-type: none"> # the way in which components of the environment affect individual organisms' ability to survive and reproduce; # the way in which populations grow; # the consequences of environmental effects on individuals and on the distribution and abundance of populations; # the nature of interactions between species in communities, and how these interactions affect individuals and populations; and # the effect of natural selection on individuals and on the dynamics of populations and communities. <p>In the practical component students should:</p> <ul style="list-style-type: none"> # develop an understanding of the ways in which ecological research is carried out; and # gain an appreciation of the importance of field experiments and the role and usefulness of models, including mathematical models, in ecology. <p>The subject provides an introduction to ecological questions that can be addressed at the levels of individuals, populations, communities and ecosystems. Topics covered include aquatic and terrestrial examples; organisms and the physical environment; life histories, population growth and regulation; managing populations; theoretical models; and species interactions, especially competition and predation. The practical component will emphasise experimental approaches to ecology, experimental design and biometry, and how to write scientific papers.</p>
Assessment:	Written work as practical and excursion reports totalling up to 15 pages due during the semester (30%); ongoing assessment of practical exercises and laboratory problems during the semester (25%); a 2-hour written examination in the examination period (45%).
Prescribed Texts:	Ecology: Individuals, Populations and Communities (M Begon et al.), 3rd edn, Blackwell, 1996

Breadth Options:	<p>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.</p> <p>This subject or an equivalent will be available as breadth in the future.</p> <p>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.</p> <p>2009 subjects to be offered as breadth will be finalised before re-enrolment for 2009 starts in early October.</p>
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Notes:	<p>Students enrolled in the BSc (pre-2008 BSc), BAsc or a combined BSc course will receive science credit for the completion of this subject.</p> <p>Experiments involving the use of animals are an essential part of this subject; exemption is not possible.</p> <p>Formerly known as 654-204 Animal Ecology.</p>
Related Course(s):	<p>Bachelor of Animal Science and Management</p> <p>Bachelor of Arts</p> <p>Bachelor of Forest Science</p> <p>Bachelor of Forest Science</p> <p>Diploma in Arts (Environmental Studies)</p>