

GEOG30022 River Ecology & Ecosystem Management

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	This subject is not offered in 2014. This subject contains a quota of no more than 40 students. Students will need to fill out the quota subject application form found on the MSLE website (http://go.unimelb.edu.au/5o6n) and send it back to the MSLE Student Centre in Parkville before the due date listed on the form. A limited number of students will be selected for this subject on the basis of academic merit, subject to meeting the subject's prerequisites or by demonstrating other appropriate qualifications for selection. Students will be advised of the outcome of their application.
Time Commitment:	Contact Hours: 24 hours of lectures, 10 3-hour practicals and up to 30 hours of fieldwork scheduled on weekends Total Time Commitment: Contact Hours: 24 hours of lectures, 10 3-hour practicals and up to 30 hours of fieldwork scheduled on weekends Total Time Commitment: 120 hours
Prerequisites:	Usually 37.5 points of second year subjects including at least one of ECOL20003 Ecology or GEOG20009 Landscapes and Diversity or equivalent as approved by the subject coordinator.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	Credit cannot be obtained for both this subject and former Faculty of Arts subjects 121-349 Principles of Environmental Hydrology or 121-350 Techniques in Environmental Hydrology or 121-029 Environmental Hydrology B or 121-033 Environmental Hydrology.
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Contact:	Melbourne School of Land & Environment Student Centre Ground Floor, Melbourne School of Land & Environment (building 142) <i>Enquiries</i> Phone: 13 MELB (13 6352) Email: 13MELB@unimelb.edu.au (mailto:13MELB@unimelb.edu.au)
Subject Overview:	This subject examines theories in the discipline of ecology and biogeography as they pertain to freshwater environments, emphasising the use of theory to understand how to solve environmental management problems in freshwater ecosystems. The subject examines the population, community and ecosystem dynamics of lakes, rivers and other wetlands, and the geographical distributions and diversities of the organisms that inhabit these systems. . Through practicals and fieldwork, students should develop an understanding of the relations between catchment characteristics, the nature of the water body and its associated biota. Students should become aware of the multidisciplinary nature of ecosystem management and the need for critical examination of ideas in the literature.
Learning Outcomes:	Students should be able to: <ul style="list-style-type: none"> # understand the principles of ecology and biogeography as they relate to freshwater ecosystems; and # acquire, analyse and present data relating to catchment characteristics, water quality and quantity, and the biota of freshwater ecosystems; # understand some principles of flow in open channels;

	<ul style="list-style-type: none"> # understand the processes that determine water quality and quantity and the ecological status of rivers, lakes and wetlands; # Be able to apply basic laboratory, computer and field methods for freshwater ecology.
Assessment:	<ul style="list-style-type: none"> • Practical exercises completed in practical classes weeks 2-11 30% • A field research report of 2500 words due late May 45% • A group presentation on field research End of semester 5% • A 1-hour exam during the examination period 20%
Prescribed Texts:	None
Recommended Texts:	Stream Hydrology: An Introduction for Ecologists, N.D. Gordon, T.A. McMahon, B.L. Finlayson, C.J. Gippel and R.J. Nathan, John Wiley & Sons, 2nd edition, 2004
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"> # Bachelor of Music (https://handbook.unimelb.edu.au/view/2014/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
Generic Skills:	<p>On completion of this subject students should have developed the following generic skills:</p> <ul style="list-style-type: none"> # be able to evaluate and synthesise the research and professional literature in stream ecology and hydrology as they relate to environmental management; # be able to design, conduct and report on original research based on field and/or laboratory investigation; # work effectively in projects which require team-work; and # conduct sample surveys and carry out basic quantification of water quantity and quality
Notes:	Students enrolled in the BSc (both pre-2008 degree and new degrees), or a combined BSc course (except for the BA/BSc) may receive science credit on the completion of this subject.
Related Course(s):	Master of Science (Geography)
Related Majors/Minors/Specialisations:	<p>Ecology (pre-2008 Bachelor of Science) Ecology and Evolutionary Biology Environmental Geographies, Politics and Cultures major Environmental Science Environmental Science major Environments Discipline subjects Geography Integrated Geography Integrated Geography Landscape Management major Physical Geography Physical Geography Science credit subjects* for pre-2008 BSc, BASc and combined degree science courses Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED</p>