

GEOG90003 Integrated River & Catchment Management

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: One 2-hour lecture/seminar per week plus 3 days of field work during the semester. Total Time Commitment: Not available
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	General knowledge of environmental policy, natural systems, or strategic planning an advantage. Former students have either worked in, or had degrees in a wide range of areas including engineering, resource management, water chemistry, etc.
Non Allowed Subjects:	None
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 website: http://www.services.unimelb.edu.au/disability/
Coordinator:	Assoc Prof Ian Rutherford
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Subject Overview:	Rivers are amongst the hardest of natural resources to manage. They are long and thin, and so maximise the impact of catchment changes; they also focus environmental, social and production pressures. Rivers are the archetypal example of the conflict between private and public goods. In most western countries we have done an effective job of degrading these resources. The last 20 years has seen a transformation in the way rivers have been managed. We are now less concerned with protecting people from rivers (via flood mitigation), and more focused on environmental rehabilitation and protection. This subject equips students to manage rivers more effectively by integrating catchment management activities. In reality, there are not many things that we do to manage rivers: change landuse, change flow, change water quality, change riparian vegetation, or make structural changes to the river. In this course we concentrate on (a) how much do you have to alter each of these management levers in order to produce the most cost effective improvements in river condition and sustainability; (b) how do we integrate the management of many levers at different scales; and (c) how do we evaluate whether we have had any effect. The subject has a strong emphasis on how to develop strong and successful policy for managing natural systems. The principles for managing rivers apply to managing most natural resources, so students can be confident of learning general management and policy principles.
Learning Outcomes:	At the completion of this subject students will have a sound understanding of: <ul style="list-style-type: none"> # River processes and functions (both physical and ecological) # The policy framework and principles for river management # How to develop and implement river management strategies and plans A critical, and realistic, approach to natural resource management (incorporating both scientific and social dimensions)

Assessment:	Prepare a 'Trajectory' model and report of 1,000 words. Value 25% (due in Week 4), Fieldtrip report of 2,500 words. Value 50% (due in week 9), and Develop a summary catchment management plan for the Great Barrier Reef. 1,500 words. Value 25% (due in week 12). Attending the major field trip is a hurdle requirement for the subject.
Prescribed Texts:	N/A
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	<ul style="list-style-type: none"> # design, conduct and report on original research based on field and/or laboratory investigation; # work effectively in projects which require team-work; # articulate their knowledge and understanding in oral and written presentations;
Related Course(s):	Master of Science (Geography)
Related Majors/Minors/Specialisations:	100 Point Master of Development Studies 150 Point Master of Development Studies 200 Point Master of Development Studies Conservation and Restoration Conservation and Restoration Environmental Science Environmental Science Integrated Water Catchment Management Integrated Water Catchment Management Master of Science (Ecosystem Science) - Discipline Elective subjects Tailored Specialisation Tailored Specialisation