FRST90022 Forests and Water

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2010, Creswick This subject commences in the following study period/s: August, Creswick - Taught on campus. Intensive teaching, Creswick
Time Commitment:	Contact Hours: 24 hours lectures and 36 hours practical work delivered in a two-week intensive teaching block. This will include an overnight excursion to the River Murray area and a day trip to Melbourne's water catchments Total Time Commitment: 100 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
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 Unit website: http://www.services.unimelb.edu.au/disability/
Coordinator:	Dr Gary Sheridan, Dr Paul Feikema
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Subject Overview:	On completion of this subject students should have a detailed understanding of the hydrologic cycle and its impact on society, be familiar with the possible changes in water values that can be changed by land management, and the costs and benefits of such changes to society, be aware of the hydrologic, social, political, and economic factors involved in matters of catchment management, and have some feeling for the level of inaccuracy involved in hydrologic measurements. Content includes: # Hydrologic cycle and "randomness" inherent in it # Surface water flows and surface water modelling # Groundwater flow and groundwater modelling # Water quality and its measurement # Impacts of land use on water quality and quantity # Salinity and its impacts on native rivers and streams # Principles of catchment management # Questions of water rights and water trading # Water use conflicts and their resolution # Restoration hydro-ecology # Long-term variations in stream flow # Role of forests in regulating the hydrologic cycle The subject will draw heavily on Australian examples, and will involve an overnight excursion to the River Murray area

Objectives:	On completion of this subject students should have: # A detailed understanding of the hydrologic cycle and its impact on society # Be familiar with the possible changes in water values that can be changed by land management, and the costs and benefits of such changes to society # Be aware of the hydrologic, social, political, and economic factors involved in matters of catchment management # Be familiar with the contribution of forests to maintenance of hydrologic cycle # Have some feeling for the level of inaccuracy involved in hydrologic measurements
Assessment:	Two projects (3000 words each) 50% each
Prescribed Texts:	None
Recommended Texts:	Chang, M (2006) *Forest hydrology: an introduction to water and forests*. Boca Raton: CRC/ Taylor & Francis.
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
Links to further information:	http://www.forests.unimelb.edu.au/subjects.html
Related Course(s):	Bachelor of Forest Science (Honours) Master of Environment Master of Environment Master of Forest Ecosystem Science Postgraduate Certificate in Environment Postgraduate Diploma in Environment
Related Majors/Minors/ Specialisations:	Sustainable Forests