# EVSC30008 Hydrology Of Landscapes

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| **Credit Points:** | 12.50 |
| **Level:** | 3 (Undergraduate) |
| **Dates & Locations:** | This subject is not offered in 2012. |
| **Time Commitment:** | Contact Hours: 52 hours Total Time Commitment: 120 hours |
| **Prerequisites:** | Completion of 37.5 points of second year subjects, preferably one of Soil and Water Resources, Leaves to Landscapes (B.Envs. Landscape Management major, B. Sci. Agricultural Science major) Understanding Global Landforms: Rivers, Lake and Wetlands, Fluvial Geomorphology (B.Sci. Geography major) or relevant Engineering or Environmental Science subjects. |
| **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 Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: <a href="http://services.unimelb.edu.au/disability">http://services.unimelb.edu.au/disability</a> |
| **Contact:** | **Melbourne School of Land & Environment Student Centre**<br>Ground Floor, Land & Food Resources (building 142)<br>*Enquiries*<br>Phone: 13 MELB (13 6352)<br>Email: **13MELB@unimelb.edu.au (mailto:13MELB@unimelb.edu.au)** |
| **Subject Overview:** | In this subject, students will examine the complex relationships and interactions between climate, vegetation and soil within catchments, and their strong influences on both the quantity and the quality of surface and groundwater resources. Using an ecohydrological, framework, students will develop and apply fundamental disciplinary skills from hydrology, plant physiology and soil science to understand the hydrologic implications of contemporary environmental issues such as climate change, fire, land clearing, and forest management. |
| **Objectives:** | A sound understanding of:<br>• the multidisciplinary aspects of water production<br>• biophysical processes of plant water use<br>• how climate interacts with plants and soil/topography to deliver water to streams<br>• how natural and human induced changes to vegetation affects water quantity and quality<br>• how climate change can affect vegetation and water resources<br>• hydrologic issues for landuse management decision making |
| **Assessment:** | Practical exercises completed in class - 20%, Major assignment of 2,000 words, due 31/08/2012 - 30%, Field trip report, due 3/08/2012 - 10%, Daily quiz on previous day's material - 15%, and examinaton of 1.5 hours, to be held in the 2nd semester exam period - 25%. |
| **Prescribed Texts:** | Ecohydrology: vegetation function, water and resource management. D. Eamus, T. Hatton, P. Cook and C. Colvin. CSIRO Publishing 2006. |
| **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 |

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| **Generic Skills:** | Upon successful completion of this course the students should have acquired the following skills:<br>• a high-level understanding of the role climate and vegetation play in hydrology<br>• Ability to evaluate and synthesise research and professional literature in ecohydrology as they relate to streamflow generation and landscape management<br>• Competence in data analysis and report writing<br>• Ability to apply sound science-based decisions to landscape management |