

ENVS10001 Natural Environments

Credit Points:	12.5
Level:	1 (Undergraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus. Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 24 hours of lectures, 12 hours of tutorials, and 12 hours of lab classes. Total Time Commitment: 170 Hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	<p><p>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.</p> <p><p>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: http://services.unimelb.edu.au/disability</p></p> </p>
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Subject Overview:	<p>The subject introduces students to natural environments, and the elements and systems that shape the natural world. A critical understanding of these elements and systems is fundamental, not only to the sustainable management of natural environments, but also to nearly all aspects of human endeavor therein: including biodiversity and recreation management, primary production (agriculture and forestry), urban and regional land-use planning, environmental design (architecture and engineering), and local through to global environmental policy. In this subject, the student draws upon case studies and concepts from a broad range of disciplines to explore key components and processes of natural environments, and learns practical skills in landscape assessment for sustainable management and design. Major themes explored include plate tectonics; rocks and minerals; landscape processes and soil formation; weather, climate and climate change; microclimate; the water cycle and catchment hydrology; landscape ecology and the distribution, properties and functioning of different ecosystems. Practical skills in landscape assessment and interpretation are emphasised, as well as an appreciation of the effect of scale and temporal change in the examination of natural environments.</p>
Learning Outcomes:	<p>At the completion of this subject students should be able to:</p> <ul style="list-style-type: none"> # Discuss how sustainable management and design stems from a respect of our planet's natural systems;

	<ul style="list-style-type: none"> # Describe the processes that led to the formation of the Earth and the continents as we now know them; # Describe and begin to quantify the principles and nature of the global atmospheric circulation system and implications for patterns of global climate and weather; # Describe the nature of climate change and variability and begin to quantify the planet's energy balances, especially as they relate to current global warming; # Describe the key facets of evolution as they affect species diversity and key events such as mass extinctions and precursors to biodiversity change; # Describe and begin to quantify the water cycle, including the impact of catchment hydrology on stream flow and water resources; # Recognise the processes that shape our landscape and identify the factors that influence soil formation; # Describe key soil types and list their attributes; # Describe the attributes of the major biogeographical realms; # Discuss different approaches to the principles of ecology and the interactions between the physical and biological that lead to ecological systems of differing character and scale.
Assessment:	<p>Assignment 1: In-semester test #1 of 15 min (for early assessment and formative feedback) due Week 4 (5%)</p> <p>Assignment 2: In-semester test #2 of 30 min (for summative assessment of knowledge of lecture material) due week 12 (15%)</p> <p>Assignment 3: Background research report of 1500 words (group task) due Week 6 (15%)</p> <p>Assignment 4: Oral presentation of site visit findings (15 mins) (group task) due Week 10 (20%)</p> <p>Assignment 5: Landscape Ecological Assessment Report of 2000 words due Week 14 (40%)</p> <p>Assignment 6: Group planning process and meeting minutes due Weeks 5 and 10 (5%)</p>
Prescribed Texts:	None
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 Arts (https://handbook.unimelb.edu.au/view/2015/B-ARTS) # Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2015/B-COM) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2015/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>At the completion of this subject students should have the following skills:</p> <ul style="list-style-type: none"> # An ability to utilise a systems approach to analysing natural systems # A capacity for independent critical thought, rational inquiry and self-directed learning # A profound respect for truth and intellectual integrity, and for the ethics of scholarship # Begun to develop a technical competence in analysing natural systems
Links to further information:	http://www.benvs.unimelb.edu.au/
Notes:	Students enrolled in the BSc (both pre-2008 and new degrees), BASc or a combined BSc course will receive science credit for the completion of this subject.
Related Course(s):	Bachelor of Environments
Related Majors/Minors/Specialisations:	<p>Civil (Engineering) Systems major</p> <p>Environmental Engineering Systems major</p> <p>Environmental Geographies, Politics and Cultures major</p> <p>Environmental Geography</p> <p>Environmental Science major</p> <p>Geomatics (Geomatic Engineering) major</p> <p>Landscape Management major</p> <p>Production Animal Health</p> <p>Science-credited subjects - new generation B-SCI and B-ENG.</p> <p>Selective subjects for B-BMED</p>

	Sustainable Production
Related Breadth Track(s):	Greening Urban Landscapes Natural systems and our designed world Civil and Environmental Engineering Living in Australia's Hazardous Ecosystems Engineering and Environments Ecology