

## Environmental Science major

<b>Year and Campus:</b>	2013
<b>Coordinator:</b>	Professor Michael Keough
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<b>Overview:</b>	<p>Impact on the Earth's environment arises from human activities, including land degradation and industrial pollution, as well as naturally occurring phenomena, such as earthquakes, cyclones and tsunamis. Studies in Environmental Science provides students with the skills to identify and understand the causes or environmental problems triggered by human activity.</p> <p><b>Careers and Further Study</b></p> <p>A major in Environmental Science opens doors to laboratory, outdoor and indoor careers. Specialisations can include studies in hydrogeology, marine and terrestrial ecology, conservation biology and assessing and measuring environmental risk.</p> <p>The Environmental Science major also provides a pathway to the Master of Science (Environmental Science) which was launched in 2009. For more information on the Master of Science please visit the Melbourne Graduate School of Science web site: <a href="http://graduate.science.unimelb.edu.au">http://graduate.science.unimelb.edu.au</a> (<a href="http://graduate.science.unimelb.edu.au">http://graduate.science.unimelb.edu.au</a>)</p>
<b>Objectives:</b>	<p>By the end of a three year Bachelor of Environments degree with an Environmental Science major, students will have developed robust, scientifically sound and practical skills to find solutions to problems impacting on the Earth. For more information visit: <a href="http://www.benvs.unimelb.edu.au">www.benvs.unimelb.edu.au</a> (<a href="http://www.benvs.unimelb.edu.au/">http://www.benvs.unimelb.edu.au/</a>)</p>
<b>Structure &amp; Available Subjects:</b>	112.5 points (9 subjects) of Environmental Science subjects.
<b>Majors/Minors/Specialisations</b>	<p>Course planning for an Environmental Science major</p> <p>A major in Environmental Science in the Bachelor of Environments consists of:</p> <ul style="list-style-type: none"> <li># 112.5 points (9 subjects) of Environmental Science subjects;</li> <li># 37.5 points (3 subjects) of core first year subjects (Natural Environments, Reshaping Environments and Urban Environments).</li> </ul> <p>This is in addition to electives and breadth to make up the 300 points required for the degree. Specific details of the Bachelor of Environments course structure can be found at: <a href="https://handbook.unimelb.edu.au/view/current/B-ENVS">https://handbook.unimelb.edu.au/view/current/B-ENVS</a> (<a href="https://handbook.unimelb.edu.au/view/current/B-ENVS">../view/current/B-ENVS</a>)</p>
<b>Subject Options:</b>	<p>The following description of the Environmental Science major aligns with the Study Plan Structure viewable on the Portal for students who commenced the Bachelor of Environments in 2013 or later.</p> <p>The components within the structure of this major have been designed to enforce the requirements of both this specific major and of the course overall, e.g. the requirement that at least 62.5 points of Environments discipline subjects (which can include subjects taken within the major) are taken at each of Level 2 and Level 3.</p> <p>It is strongly recommended that students refer to the full description of this major.</p> <p>The layout of this description is not necessarily in the order in which subjects are taken.</p> <p>E.g. breadth subjects should be taken in a student's first year and the information on breadth is displayed at the end of this entry.</p> <p>Students who commenced the Bachelor of Environments prior to 2013 should refer to the handbook entry for the year they commenced in conjunction with the 2013 handbook listings for Environments elective and Breadth subjects.</p> <p><b>Level 1 Core subjects - Bachelor of Environments (37.5 points)</b></p> <p>Core subjects that must be taken by all Bachelor of Environments students.</p> <p>All of</p>

Subject	Study Period Commencement:	Credit Points:
ENVS10001 Natural Environments	Not offered 2013	12.50
ENVS10002 Reshaping Environments	Not offered 2013	12.50
ENVS10007 Urban Environments	Not offered 2013	12.50

### Level 1 Environments Electives (37.5 points)

Select three of the following subjects.

Subject	Study Period Commencement:	Credit Points:
ENVS10003 Constructing Environments	Not offered 2013	12.50
ENVS10004 Designing Environments	Not offered 2013	12.50
ENVS10005 Governing Environments	Not offered 2013	12.50
ENVS10006 Mapping Environments	Not offered 2013	12.50
ENVS10008 Virtual Environments	Semester 1	12.50
ENVS10009 Structural Environments	Not offered 2013	12.50
ENVS10010 Owned Environments	Not offered 2013	12.50
ENVS10011 Productive Environments	Semester 2	12.50

### Environmental Science major - core subjects (37.5 points)

All of

Subject	Study Period Commencement:	Credit Points:
ECOL20003 Ecology	Not offered 2013	12.50
EVSC30002 Problem Solving in Environmental Science	Not offered 2013	12.50
EVSC30003 Environmental Risk Assessment	Not offered 2013	12.50

### Environmental Science major - Level 2 electives (37.5 points)

Select 37.5 points (i.e. 3 x 12.5 point subjects) from the following subjects.

NB. A number of these subjects contributing to this major have prerequisites. Check the individual subject entry for more information. Where required, and subject to compliance with overall course rules, prerequisite subjects may be taken as breadth or as Environments elective subjects.

Subject	Study Period Commencement:	Credit Points:
CHEM20011 Environmental Chemistry	Not offered 2013	12.50
CHEM20018 Chemistry: Reactions and Synthesis	Not offered 2013	12.50
CHEM20019 Practical Chemistry 2	Not offered 2013	12.50
CHEM20020 Chemistry: Structure and Properties	Not offered 2013	12.50
EVSC20001 Leaves to Landscape	Not offered 2013	12.50
GEOL20004 Field Mapping and Sedimentary Geology	Not offered 2013	12.50
MAST20006 Probability for Statistics	Not offered 2013	12.50

MAST20005 Statistics	Not offered 2013	12.50
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### Environmental Science major - Level 3 electives (37.5 points)

Select 37.5 points (i.e. 3 x 12.5 point subjects) from the following subjects.

Subject	Study Period Commencement:	Credit Points:
BOTA30004 Vegetation Management and Conservation	Not offered 2013	12.50
CHEM30012 Analytical & Environmental Chemistry	Not offered 2013	12.50
ECOL30005 Applied Ecology	Not offered 2013	12.50
ERTH30001 Hydrogeology/Environmental Geochemistry	Not offered 2013	12.50
GEOG30022 Rivers: Hydrology and Ecology	Not offered 2013	12.50
GEOM30009 Imaging the Environment	Not offered 2013	12.50
MAST30025 Linear Statistical Models	Not offered 2013	12.50

There is also one Level 1 subject that can also contribute to this major (i.e. as an elective in the major that counts as one of the 9 subjects)

Students interested in taking this subject should include the subject in the Free Points component of their study plan. It can take the place of another subject within the composition of this major but cannot be added to the major in the study plan. Students will need to ensure that they complete at least 62.5 points of Environments discipline subjects (which can include subjects within the major) at each of Level 2 and Level 3.

Subject	Study Period Commencement:	Credit Points:
CHEM10004 Chemistry 2	Not offered 2013	12.50

N.B. Students wishing to substitute either one or two Level 2 electives within this major for Level 3 electives, or one or two Level 3 electives within this major for Level 2 electives will be able to do so. An appropriate adjustment to the Level 2 and Level 3 Environments electives (below) can be made for individual students to ensure that within the Bachelor of Environments course the minimum points requirements for Environments discipline subjects are met (i.e. at least 62.5 points at Level 2 and at least 62.5 points at Level 3).

#### Level 2 Environments elective subject (12.5 points)

Select one x 12.5 point subject at Level 2 from the list of [Environments Discipline subjects \(.J../view/current/%21B-ENVS-SPC%2B1000\)](#)

#### Level 2 or Level 3 Environments elective subjects (25 points)

Select two x 12.5 point subjects at Level 2 or Level 3 from the list of [Environments Discipline subjects \(.J../view/current/%21B-ENVS-SPC%2B1000\)](#)

#### Breadth subjects

Bachelor of Environments students must complete between 50 and 75 credit points of subjects selected from those available as breadth for Bachelor of Environments students; with no more than 37.5 points at Level 1. For a complete listing of available subjects please click the 'Find breadth subjects' link on the [Handbook homepage \(.J../\)](#) and perform a search.

The breadth requirements for the Bachelor of Environments include the restriction of some subjects as breadth options, depending on an individual student's choice of major. Subjects in the Handbook that are marked as available as breadth in the Bachelor of Environments may be subject to further restrictions, depending up which major a student is completing in that course. Detailed information on these [Restrictions for Breadth Options \(.J../view/CURRENT/%21B-ENVS-SPC%2B1001\)](#) is available.

#### Breadth restrictions for Environmental Science major students

Students undertaking the Environmental Science major are not permitted to take as breadth:

- # any Agricultural Science subjects (subject codes beginning AGRI )

	<ul style="list-style-type: none"> <li># any Biology subjects (subject codes beginning BIOL)</li> <li># any Biochemistry and Molecular Biology subjects (subject codes beginning BCMB)</li> <li># any Botany/Plant Science subjects (subject codes beginning BOTA)</li> <li># any Chemistry subjects (subject codes beginning CHEM)</li> <li># any Civil Engineering subjects (subject codes beginning CVEN)</li> <li># any Engineering subjects (subject codes beginning ENGR)</li> <li># any Environmental Science subjects (subject codes beginning EVSC)</li> <li># any Geography subjects (subject codes beginning GEOG)</li> <li># any Geomatics subjects (subject codes beginning GEOM)</li> <li># any Mathematics and Statistics subjects (subject codes beginning MAST)</li> <li># any Physics subjects (subject codes beginning PHYC)</li> </ul>
<b>Notes:</b>	<p>For more information on this major and to view a sample course plan please visit:  <a href="http://benvs.unimelb.edu.au/current-students/course-info">http://benvs.unimelb.edu.au/current-students/course-info</a> (<a href="http://benvs.unimelb.edu.au/current-students/course-info">http://benvs.unimelb.edu.au/current-students/course-info</a>)</p>
<b>Related Course(s):</b>	Bachelor of Environments