

## 625-104 The Earth, Atmosphere and Oceans

<b>Credit Points:</b>	12.500
<b>Level:</b>	Undergraduate
<b>Dates &amp; Locations:</b>	2008, This subject commences in the following study period/s: Semester 2, - Taught on campus. Lectures, laboratory based practical work and field excursions.
<b>Time Commitment:</b>	Contact Hours: 36 one-hour lectures (three per week), 12 two-hour practicals (one per week) and one day of field work. Total Time Commitment: 120 hours
<b>Prerequisites:</b>	None, but 625-101 The Global Environment is recommended. Knowledge of VCE physics and mathematics is desirable but not essential.
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	None
<b>Non Allowed Subjects:</b>	Students who have received credit for both 625-102 and 625-103 (prior to 2008) are excluded from taking this subject for credit.
<b>Core Participation Requirements:</b>	It is University policy to take all reasonable steps to minimise the impact of disability upon academic study and reasonable steps will be made to enhance a student's participation in the University's programs. This subject requires all students to actively and safely participate in laboratory activities. Students who feel their disability may impact upon their participation are encouraged to discuss this with the subject coordinator and the Disability Liaison Unit.
<b>Coordinator:</b>	Associate Professor S Gallagher
<b>Subject Overview:</b>	<p>This subject will allow students to gain a deeper understanding of the processes governing the geological and climatic evolution of the Earth. This will be achieved via a series of field trips, hands on and theoretical investigations employing Victoria's geology and meteorology in case studies.</p> <p>The first part reviews minerals, rocks and fossils. This is followed by a field trip to the Mornington Peninsula to collect fossils, rocks and minerals that are used to interpret the geological evolution of the region.</p> <p>The second part is a review of the climate and oceanography of the Earth, and a discussion of fundamental meteorological processes. Using a series of meteorological case studies, practical application of atmospheric and oceanographic analyses will be applied to our regional environment.</p> <p>A third series of studies includes structural, metamorphic and economic aspects of our regional geology. These studies are integrated with a field case study at Studley Park.</p> <p>On completion of this subject, students should understand concepts of meteorology and climate and be able to identify the basic components that make up planet Earth. Students should appreciate the contribution of geology and meteorology to the interpretation of the history of planet Earth.</p>
<b>Assessment:</b>	Assessment of field exercises during the semester (12%); short tests held during practical sessions (3%); two meteorology short answer assignments during semester (10%); a 2-hour practical examination held during the semester (25%); a 3-hour written examination in the examination period (50%). A reading topic will be assessed in the examination.
<b>Prescribed Texts:</b>	Earth's Dynamic Systems (Hamblin and Christiansen), 11th edn, Prentice Hall.
<b>Breadth Options:</b>	This subject potentially can be taken as a breadth subject component for the following courses: <ul style="list-style-type: none"> <li># Bachelor of Arts</li> <li># Bachelor of Commerce</li> <li># Bachelor of Environments</li> </ul>

	<p># Bachelor of Music</p> <p>You should visit <b>learn more about breadth subjects (<a href="http://breadth.unimelb.edu.au/breadth/info/index.html">http://breadth.unimelb.edu.au/breadth/info/index.html</a>)</b> and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	On completion of this subject students should be able to apply their discipline knowledge to issues of public debate. These include the ozone hole, the greenhouse effect and sea level rise. The subject will provide experience in presenting technical topics in written form, a skill that is useful in later work. Students will also participate in some simple collaborative projects that will enable them to develop skills for the design and completion of technical experiments. Other generic skills acquired in this subject include learning how to sharpen observation skills and how to grapple with unravelling complex processes.
<b>Notes:</b>	Students enrolled in the BSc (both pre-2008 and new degrees), BAsSc or a combined BSc course will receive science credit for the completion of this subject.