

625-101 The Global Environment

Credit Points:	12.50
Level:	1 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 1, - Taught on campus. Lectures and laboratory based practical work.
Time Commitment:	Contact Hours: 36 one-hour lectures (three per week), 12 two-hour practicals (one per week) Total Time Commitment: 120 hours total time commitment.
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	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.
Coordinator:	Assoc Prof Stephen John Gallagher
Subject Overview:	This subject examines five topics. <i>The Earth</i> covers the origin of the Earth in a planetary system; the physical and chemical structure of the Earth; the geosphere; hydrosphere; and atmosphere; and origin and composition of the atmosphere. <i>Geological Materials</i> covers minerals: the nature of crystalline substances; rocks as aggregates of minerals; an introduction to igneous, sedimentary and metamorphic rocks. <i>Plate Tectonics</i> covers why plate tectonics?; where plates collide: volcanoes, earthquakes, continental collision and mountain building; where plates part: continental drift, sea-floor spreading, mid-oceanic ridges; and within plates: uplift, weathering and erosion, transport of sediment, subsidence and sedimentation, volcanism. <i>The Basics of Weather and Climate</i> covers the Earth in space; the importance of its orbital characteristics; and cold poles and warm equator. <i>The Atmosphere</i> covers basic properties of the troposphere, stratosphere, mesosphere; the friction layer; the lapse-rate; and vertical and mean-sea-level distributions of pressure, temperature, rainfall.
Objectives:	On completion of this subject, students should comprehend the materials that the Earth is made of; the diverse processes from continent-scale to microscopic-scale which shape the Earth; the mode of formation of the rocks which make up the geological record; and the structure of the Earth's atmosphere. Students will have developed the skills to observe, in the laboratory and the field, basic properties of the global environment.
Assessment:	Short tests held during practical sessions (10%); a 2-hour practical examination held during the semester (40%); a 3-hour written examination in the examination period (50%). A reading topic will be assessed in the examination.
Prescribed Texts:	Hamblin and Christiansen, Earth's Dynamic Systems 11th edn, Prentice Hall.
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # Bachelor of Arts (https://handbook.unimelb.edu.au/view/2009/D09) # Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2009/F04) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2009/A04) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2009/M05)

	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.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	The generic skills acquired in this subject include: <ul style="list-style-type: none"> # learning how to approach problems when there may be no right answer; # tackling complex exercises within a team environment in the laboratory; and # observing in the laboratory the basic materials of the global environment.
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. Subject presented by Professor A J W Gleadow, Dr T Lane and Professor M Sandiford.
Related Course(s):	Bachelor of Forest Science Bachelor of Natural Resource Management Bachelor of Natural Resource Management Diploma in Arts (Environmental Studies)
Related Majors/Minors/ Specialisations:	Earth Sciences Environmental Studies Major First year earth sciences