

# Bachelor of Science (Geology)

The Coordinator of this major is Associate Professor Chris Fergusson - School of Earth and Environmental Sciences, Room 41.159, telephone 4221 3860, email: cfergusson@uow.edu.au .

Geology is the study of the earth, the materials of which it is made, the processes that act on these materials, the products formed and the history of the planet and its life forms. Areas of specialised study include economic geology (coal, petroleum, uranium); geophysics; palaeontology; sedimentology; structural geology; stratigraphy; tectonics; volcanology and geochemistry.

**A Geology major can be combined with a Physical Geography major.**

<b>Geology Course Structure</b>		<b>cps</b>	<b>Session</b>
<b>100-level</b>			
EESC101	Planet Earth	6	1
EESC102	Earth Environments and Resources	6	2
EESC103	Landscape Change and Climatology	6	1
<b>Recommended electives:</b>			
EESC104	The Human Environment: Problems and Change	6	2
SCIE103	Climate Change	6	2
<b>Total for major at 100-level</b>		<b>18</b>	
<b>200-level</b>			
EESC201	Earth's Inferno	6	1
EESC204	Introductory Spatial Science	6	1,2
EESC216	Sediments and Fuels	6	2
EESC250	Field Geology	6	3
<b>Recommended electives:</b>			
EESC202	Soils, Landscapes and Hydrology	6	2
EESC203	Biogeography and Environmental Change	6	1
EESC208	Environmental Impact of Societies	6	2
<b>Total for major at 200-level</b>		<b>24</b>	
<b>300-level</b>			
EESC301	Plate Tectonics, Macrotopography and Earth History	8	1
EESC306	Resources and Environments	8	2
EESC310	Water Resources and Management	8	2
<b>Recommended electives:</b>			
EESC303	Fluvial Geomorphology and Sedimentology	8	1
EESC305	Remote Sensing of the Environment	8	1
EESC304	Geographic Information Science	8	2
EESC309	Dung, Death and Decay: Modern scientific methods in archaeology	8	1
<b>Total for major at 300-level</b>		<b>24</b>	

<b>Major total</b>	<b>66</b>
<i>Additional subjects from the Science Schedule (totalling 24 credit points)</i>	24
	<b>90</b>
<i>Plus elective subjects from the Science and/or General Schedules (totalling 54 credit points)</i>	54
<b>Degree total</b>	<b>144</b>

### **Notes on Geology Major**

Geology may be taken by students wishing to become professional geologists or by students who wish to take a more general Geology-based degree for employment in teaching or management positions. The emphases of these two degree structures will differ in the ratio of Geology to elective subjects taken.

Students who wish to become professional geologists should select most of the subjects offered in Geology and plan to complete Honours in the fourth year. For entry to Geology Honours, students must satisfy requirements for the award of the degree of BSc in the Faculty of Science and normally have completed six 300-level subjects at an appropriate standard. Although not pre-requisites for a Geology-based degree, completion of one or more of the subjects MATH187/188, STAT252, CSC1103, CSC1114, EESC304 and EESC305 would be an advantage.

Elective subjects will depend on the personal interest of the student in one of the main branches of Geology. Suggested combinations of elective subjects in addition to the Mathematics and Computer Science options listed above include:

- (a) Economic Geology: 100-level and selected 200-level Chemistry subjects, or selected Economics subjects;
- (b) Geophysics: 100-level and selected 200-level Physics subjects;
- (c) Igneous and Metamorphic Petrology: 100-level and Inorganic and Physical 200-level Chemistry subjects; CHEM314, 100-level Physics subjects;
- (d) Palaeontology: 100-level Biology and Chemistry;
- (e) Sedimentology: 100-level Biology and Chemistry, and EESC302 and EESC303.

Any student in doubt about such a combination of courses is encouraged to consult with the Coordinator.

### **Honours in the School of Earth and Environmental Sciences**

Please refer to Section 7.5 for further information about the Honours program including entry requirements, relevant contact details and instructions for how to apply.