



## MODULE SPECIFICATION

Part 1: Information			
Module Title	Sedimentary Environments and Palaeoecology		
Module Code	UBGMP9-30-2	Level	Level 5
For implementation from	2020-21		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	Faculty of Environment & Technology	Field	Geography and Environmental Management
Department	FET Dept of Geography & Environmental Mgmt		
Module type:	Standard		
Pre-requisites	Earth Materials 2019-20		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p><b>Overview:</b> This module will build on Level 1 modules on sedimentary rocks and palaeontology.</p> <p>In this module you will examine the environments in which different types of sediments are formed and how they become sedimentary rocks. This module also highlights the environmental and ecological processes that lead to particular fossil assemblage.</p> <p><b>Educational Aims:</b> See Learning Outcomes.</p> <p><b>Outline Syllabus:</b> You will cover:</p> <p>Earth surface processes, weathering and erosion, mechanisms of sediment transport</p> <p>The nature and classification of environments in terms of paleoecology</p> <p>Terrestrial aquatic environments: alluvial fans, rivers, deltas, lakes</p> <p>Desert (aeolian systems) environments</p> <p>Glacial and periglacial environments</p>

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Coastal, estuarine and shallow marine environments

Coral reefs and carbonate producing environments

Exposure surfaces, hardgrounds, palaeosols

Palaeoautecology and palaeosynecology

**Teaching and Learning Methods:** See Outline Syllabus and Assessment.

### Part 3: Assessment

Summative assessment:

Component A – Examination (2 hours). Learning Outcomes 1-7.

Written examination with a practical component.

For the academic year 2020-2021 this exam will be a take home exam.

Strategy:

This will assess students' ability to interpret the products and life forms of different sedimentary environments and how they form facies and associations in the rock record.

Students will be able to demonstrate their understanding of key concepts in interpreting sedimentary architecture and palaeoecology and the impact of environmental change.

The exam will also assess students' engagement with academic literature.

Component B – Reports (1500 words each). Learning Outcomes 1-7.

Element 1: Report based on given data for the semester 1 work. Learning outcomes 1, 2, 4, 6, 7.

Strategy:

Students will be able to build up the information for this report throughout the module and receive formative feedback.

The assignment will examine students' application of knowledge gained from teaching on the course and their background reading.

Students will be able to demonstrate that they have practical skills to interpret sedimentary environments.

The report will include an independent interpretation of a field locality so students will be able to demonstrate their understanding of sedimentological parameters and their engagement with academic literature.

Element 2: Field report based on semester 2 work. Learning Outcomes 1-7. If fieldwork cannot be undertaken in the academic year 2020-2021 thin section and fossil data sets will be given to students so the MLO and PLO can be met.

Strategy:

Students will be able to build up the information for this report throughout the module and receive formative feedback.

The assignment will examine students' application of knowledge gained from teaching on the course and their background reading.

Students will be able to demonstrate that they have practical skills to interpret sedimentary environments and carry out palaeoecological surveys.

The report will include an independent interpretation of a field locality so students will be able to demonstrate their

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understanding of sedimentological and palaeoecological parameters and their engagement with academic literature.

### Formative work:

Formative work will be set weekly during practical and field sessions for students' self-assessment. Formative work will be an integral part of the reading strategy. Students will receive preparation practical exercises that will help with interpretative questions for the summative assessment.

### Resit:

The resit will involve a resit examination (2 hours, Component A), and/ or a single report of 2500 words (Component B, Element 2) the brief for which will be designed to draw on the full module syllabus. This report is shorter than the combined first sit Elements 1 and 2 because it will only require one introduction/context, and one concluding sections.

First Sit Components	Final Assessment	Element weighting	Description
Report - Component B		30 %	Report 2 (1500 words)
Report - Component B		30 %	Report 1 (1500 words)
Examination (Online) - Component A	✓	40 %	Online exam
Resit Components	Final Assessment	Element weighting	Description
Report - Component B		60 %	Report (2500 words)
Examination (Online) - Component A	✓	40 %	Written examination

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<b>Part 4: Teaching and Learning Methods</b>																	
Learning Outcomes	<p>On successful completion of this module students will achieve the following learning outcomes:</p> <table border="1"> <thead> <tr> <th style="text-align: left;"><b>Module Learning Outcomes</b></th> <th style="text-align: left;"><b>Reference</b></th> </tr> </thead> <tbody> <tr> <td>Articulate key concepts and ideas in the fields of sedimentology and palaeoecology</td> <td>MO1</td> </tr> <tr> <td>Categorise key processes and products of sedimentation in the range of terrestrial and marine environments</td> <td>MO2</td> </tr> <tr> <td>Describe environmental adaptations adopted by organisms</td> <td>MO3</td> </tr> <tr> <td>Evaluate changes in sedimentary environments and the impact on organisms</td> <td>MO4</td> </tr> <tr> <td>Evaluate ecological limitations on organisms</td> <td>MO5</td> </tr> <tr> <td>Analyse and interpret sedimentary facies and architecture</td> <td>MO6</td> </tr> <tr> <td>Demonstrate independent engagement with academic literature</td> <td>MO7</td> </tr> </tbody> </table>	<b>Module Learning Outcomes</b>	<b>Reference</b>	Articulate key concepts and ideas in the fields of sedimentology and palaeoecology	MO1	Categorise key processes and products of sedimentation in the range of terrestrial and marine environments	MO2	Describe environmental adaptations adopted by organisms	MO3	Evaluate changes in sedimentary environments and the impact on organisms	MO4	Evaluate ecological limitations on organisms	MO5	Analyse and interpret sedimentary facies and architecture	MO6	Demonstrate independent engagement with academic literature	MO7
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Reading List	<p><i>The reading list for this module can be accessed via the following link:</i></p> <p><a href="https://uwe.rl.talis.com/modules/ubgmp9-30-2.html">https://uwe.rl.talis.com/modules/ubgmp9-30-2.html</a></p>																

<b>Part 5: Contributes Towards</b>
<p>This module contributes towards the following programmes of study:</p> <p>Geology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2019-20</p> <p>Geology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20</p>