



## MODULE SPECIFICATION

Part 1: Information			
Module Title	Applied Sedimentology		
Module Code	UBGMQ9-30-3	Level	Level 6
For implementation from	2019-20		
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	Sedimentary Environments 2018-19, Sedimentary Environments and Palaeoecology 2019-20		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p><b>Features:</b> Prerequisites: one of:            UBGMJ7-15-2 Sedimentary Environments            UBGMP9-30-2 Sedimentary Environments and Palaeoecology</p> <p><b>Educational Aims:</b> This module will build on levels 1 and 2 modules addressing sedimentological principles and environments. The module will help students to develop skills used in industry.</p> <p><b>Outline Syllabus:</b> The principal theories and concepts will be introduced by short lectures but the main content of the course relates to field and practical work. Practical sessions, which will be introduced by a demonstration, will enable students to gain experience of investigating sedimentological concepts, sedimentary geochemistry and practical skills in applied sedimentology. Field skills in observation, measurement and problem solving will be built in during local excursions. One-to-one support will be provided during practical and field sessions and via email.</p>

## STUDENT AND ACADEMIC SERVICES

You will cover:

Principal theories and concepts in sedimentology.

Climate and sedimentary processes. 3. Tectonic subsidence and deposition.

Sequence stratigraphy.

Facies analysis.

Basin analysis.

Diagenesis of sedimentary rocks.

Sedimentary geochemistry.

Environmental sedimentology.

Seismic interpretation, 2D & 3D.

Core analysis.

**Teaching and Learning Methods:** Summative assessment

Component A: Examination (2 hours). Learning outcomes 1 and 5.

Strategy:

Test the students' knowledge of the theory and concepts of sedimentology that will underpin the case study report.

Test the students' engagement with academic literature.

Component B: Independent case study report. Learning outcomes 1-6.

Strategy:

Each student will investigate a project topic which will be unique to the student and will be based upon the type of sedimentological investigation they could be required to engage within professional practice. The project will be assessed through a presentation and a report.

The report will demonstrate students' ability to research and synthesise information on a project in sedimentology. It will also indicate the students' ability to analyse or model the situation and make interpretations, judgements and recommendations.

The presentation will simulate a professional situation where an executive summary of the report has to be presented in a fixed time frame.

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.

## STUDENT AND ACADEMIC SERVICES

Part 3: Assessment			
Written Exam: Unseen or open book written exam.			
Coursework: Written assignment or essay, report, dissertation, portfolio, project or in class test.			
Practical Exam: Oral Assessment and/or presentation, practical skills assessment, practical exam (i.e. an exam determining mastery of a technique).			
First Sit Components	Final Assessment	Element weighting	Description
Report - Component B	✓	50 %	Report (2500 words)
Examination - Component A		50 %	Examination (2 hours)
Resit Components	Final Assessment	Element weighting	Description
Report - Component B	✓	50 %	Report (2500 words)
Examination - Component A		50 %	Examination (2 hours)

Part 4: Teaching and Learning Methods															
Learning Outcomes	On successful completion of this module students will achieve the following learning outcomes:														
	<table border="1"> <thead> <tr> <th>Module Learning Outcomes</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>Articulate principle theories and concepts in sedimentology.</td> <td>MO1</td> </tr> <tr> <td>Model and interpret sedimentological environments from field and data analysis.</td> <td>MO2</td> </tr> <tr> <td>Appraise and implement analytical and graphical techniques to investigate sedimentary basins.</td> <td>MO3</td> </tr> <tr> <td>Synthesise and apply sedimentological skills and knowledge to conduct a basin analysis project at a professional level.</td> <td>MO4</td> </tr> <tr> <td>Demonstrate independent and critical engagement with academic literature.</td> <td>MO5</td> </tr> <tr> <td>Demonstrate transferable skills including communication (oral, written and aural), team work, decision making, risk analysis, and time and project management.</td> <td>MO6</td> </tr> </tbody> </table>	Module Learning Outcomes	Reference	Articulate principle theories and concepts in sedimentology.	MO1	Model and interpret sedimentological environments from field and data analysis.	MO2	Appraise and implement analytical and graphical techniques to investigate sedimentary basins.	MO3	Synthesise and apply sedimentological skills and knowledge to conduct a basin analysis project at a professional level.	MO4	Demonstrate independent and critical engagement with academic literature.	MO5	Demonstrate transferable skills including communication (oral, written and aural), team work, decision making, risk analysis, and time and project management.	MO6
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Contact Hours	<b>Independent Study Hours:</b>														
	Independent study/self-guided study	228													
	<b>Total Independent Study Hours:</b>	228													
	<b>Scheduled Learning and Teaching Hours:</b>														
	Face-to-face learning	72													

## STUDENT AND ACADEMIC SERVICES

	<b>Total Scheduled Learning and Teaching Hours:</b>	72
	<b>Hours to be allocated</b>	300
	<b>Allocated Hours</b>	300
Reading List	<i>The reading list for this module can be accessed via the following link:</i> <a href="https://uwe.rl.talis.com/modules/ubgmq9-30-3.html">https://uwe.rl.talis.com/modules/ubgmq9-30-3.html</a>	

### Part 5: Contributes Towards

This module contributes towards the following programmes of study: