



## MODULE SPECIFICATION

Part 1: Information			
Module Title	Climate Change: Tracing the Record		
Module Code	UBGMKU-15-2	Level	Level 5
For implementation from	2018-19		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Environment & Technology	Field	Geography and Environmental Management
Department	FET Dept of Geography & Environmental Mgmt		
Contributes towards			
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p><b>Features:</b> Module Entry Requirements: 60 credits at level 1</p> <p><b>Educational Aims:</b> See Learning Outcomes.</p> <p>In addition the educational experience may explore, develop, and practise but not formally discretely assess the following:</p> <p>Field observation and recording; Awareness of the development of Quaternary science as an academic discipline</p> <p><b>Outline Syllabus:</b> The syllabus includes:</p> <p>Patterns and causes of Quaternary climate change: long-term (glacialinterglacial cycles); short-term (climate change during the Holocene interglacial).</p>

## STUDENT AND ACADEMIC SERVICES

Quaternary dating techniques: isotopes; dendrochronology; relative dating.

Reconstructing Ipswichian interglacial and Devensian glacial environments: fieldwork techniques; laboratory techniques; data interpretation.

Reconstructing Holocene interglacial environments: microfossil and sediment analyses; data interpretation; distinguishing between climate- and human-induced environmental change.

**Teaching and Learning Methods:** Scheduled learning on this module comprises a programme of interactive keynote lectures, supported by laboratory work and seminars.

Independent learning includes time engaged with essential reading, practical completion and examination preparation.

Students will receive, on average, 3 hours of contact each week in the form of lectures, laboratory sessions or seminars. In addition to the formal classes, students will be set key reading and/or activities each week to complete for the following session.

The amount of time spent on activities in this module is:

Activity:

Contact time: 36 hours

Assimilation and development of knowledge: 78 hours

Exam preparation: 36 hours

Total study time: 150 hours

### Part 3: Assessment

Summative Assessment:

Component A:

Element 1: Written examination (1 hour):

Unseen question paper based on material covered during the second half of the module.

Students will answer one essay style question.

Answers will be assessed according to the following criteria:

Relevance of the content of the essay to the question set.

Structure and organisation.

Grounding in literature, and use of evidence and supporting material.

Clarity, coherence and depth of argument.

Standards of literacy and presentation.

Component B Element 1: Portfolio of practical work (equivalent to 1,500 words):

Submission of a portfolio of practical work completed during the first half of the module.

Portfolios will be assessed according to the following criteria:

Relevance of the content of the work to the question set.

Accuracy and robustness of the palaeoenvironmental interpretation.

Reflection on the significance of the data for the regional Quaternary record, drawing on literature and supporting material.

Standards of literacy and presentation.

Formative work:

Component A – A selection of example examination questions will be available to students. They will have the opportunity to obtain formative feedback on draft answers.

Component B – Students will have the opportunity for feedback during each of the practical exercises during the scheduled contact sessions.

## STUDENT AND ACADEMIC SERVICES

First Sit Components	Final Assessment	Element weighting	Description
Portfolio - Component B		50 %	Portfolio of practical work (1500 words)
Examination - Component A	✓	50 %	Written examination (1 hour)
Resit Components	Final Assessment	Element weighting	Description
Portfolio - Component B		50 %	Portfolio of practical work (1500 words)
Examination - Component A	✓	50 %	Written examination (1 hour)

Part 4: Teaching and Learning Methods															
Learning Outcomes	On successful completion of this module students will be able to:														
	<table border="1"> <thead> <tr> <th colspan="2">Module Learning Outcomes</th> </tr> </thead> <tbody> <tr> <td>MO1</td> <td>Describe and account for patterns of natural climate variability at a range of temporal and spatial scales during the late-Quaternary geological period</td> </tr> <tr> <td>MO2</td> <td>Recognise the attributes and palaeoenvironmental applications of commonly used proxies for climate change</td> </tr> <tr> <td>MO3</td> <td>Select appropriate field techniques and palaeoenvironmental proxies for specific environmental reconstructions</td> </tr> <tr> <td>MO4</td> <td>Interpret proxies to produce a palaeoenvironmental reconstruction</td> </tr> <tr> <td>MO5</td> <td>Demonstrate a critical awareness of academic literature describing climate change science</td> </tr> <tr> <td>MO6</td> <td>Produce coherent written arguments that demonstrate an understanding of climate change science</td> </tr> </tbody> </table>	Module Learning Outcomes		MO1	Describe and account for patterns of natural climate variability at a range of temporal and spatial scales during the late-Quaternary geological period	MO2	Recognise the attributes and palaeoenvironmental applications of commonly used proxies for climate change	MO3	Select appropriate field techniques and palaeoenvironmental proxies for specific environmental reconstructions	MO4	Interpret proxies to produce a palaeoenvironmental reconstruction	MO5	Demonstrate a critical awareness of academic literature describing climate change science	MO6	Produce coherent written arguments that demonstrate an understanding of climate change science
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Contact Hours	<b>Contact Hours</b>														
	<b>Independent Study Hours:</b>														
	Independent study/self-guided study	114													
	<b>Total Independent Study Hours:</b>	114													
	<b>Scheduled Learning and Teaching Hours:</b>														
Face-to-face learning	36														

## STUDENT AND ACADEMIC SERVICES

	<b>Total Scheduled Learning and Teaching Hours:</b>	36
	<b>Hours to be allocated</b>	150
	<b>Allocated Hours</b>	150
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/ubgmku-15-2.html">https://uwe.rl.talis.com/modules/ubgmku-15-2.html</a></p>	