

# MODULE SPECIFICATION

Part 1: Information							
Module Title	Climate Change and Environmental Hazards						
Module Code	UBGMTD-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 [	ET Dept of Geography & Envrnmental Mgmt					
Module type:	Standard						
Pre-requisites		Climate Change: Tracing the Record 2019-20					
Excluded Combinations		None					
Co- requisites		None					
Module Entry requirements		None					

#### Part 2: Description

Features: Module Entry requirements: 60 credits at level 2

Educational Aims: See Learning Outcomes.

In addition to the Learning Outcomes, the educational experience may explore, develop, and practise but not formally discretely assess the following:

In-class discussions of emerging climate change science, and the policies for climate change mitigation and adaptation

Outline Syllabus: The module is divided into three sections.

Part one - 'global warming' and Earth system science:

Magnitudes, rates and causes of recent (post AD1945) climate and environmental changes within the context of the Quaternary geological period.

The role of anthropogenic disruptions of key global biogeochemical cycles in the enhanced greenhouse effect

Earth systems science, Gaia and climate change

Part two - modeling future climate and environmental changes:

Approaches to modeling future changes: complexity and time scales

IPCC scenarios of future greenhouse emissions: political and economic uncertainties

Part three - future climate change: impacts and uncertainties

Uses output from climate models to identify key climate-related hazards

Indicative examples: heat waves, wildfires, hurricanes, avalanches, permafrost thaw, sea level rise, floods, droughts, vector-borne diseases

Critical evaluation of hazard impact mitigation and adaptation strategies

**Teaching and Learning Methods:** Scheduled learning on this module includes lectures, computer-based sessions and individual formative feedback meetings.

Independent learning includes time engaged with reading, completion of formative work and preparation and completion of assessments.

Students will receive - on average - 3 hours' contact time per week.

This will be in a range of formats, including weekly keynote lectures or computer-based sessions, individual formative feedback meetings and support via e-mail.

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

Activity Hours Contact time 72 Assimilation and development of knowledge 120 Exam preparation 54 Coursework preparation 54 Total study time 300

### Part 3: Assessment

Summative Assessment

Component A: Examination (2 hours). Learning outcomes 2-6 Written examination Timing: semester 2 examination period Unseen question paper Examines material covered throughout the academic year Students will answer two questions from a choice of six

Answers will be assessed according to the following criteria:

- 1. Relevance of the content of the essay to the question set
- 2. Structure and organisation
- 3. Grounding in literature, and use of evidence and supporting material
- 4. Clarity, coherence and depth of argument
- 5. Standards of literacy and presentation

Component B Individual essay. Learning outcomes 1, 2, 3, 5, 6

Equivalent to 3000 words

## STUDENT AND ACADEMIC SERVICES

Topic: abrupt climate change during the Quaternary geological period and its application to future climate predictions and policies

Submission: end of semester 1

Essays will be assessed according to the following criteria:

Clear and succinct identification of the characteristics of the selected abrupt climate change event

Critical review of the causes of the onset of the abrupt event, based on peer-reviewed literature

Explanation of the contribution of palaeoclimate research to climate prediction models

Explanation of the contribution of palaeoclimate research to global climate change policy initiatives

Presentation and literacy

Formative work:

Formative questions will be set regularly for students' self assessment. Students will receive individual formative feedback on their essay drafts. Practice exam questions will be distributed during semester 2 and formative feedback given to students.

First Sit Components	Final Assessment	Element weighting	Description
Written Assignment - Component B		50 %	Individual essay (3000 words)
Examination - Component A	~	50 %	Examination (2 hours)
Resit Components	Final Assessment	Element weighting	Description
Written Assignment - Component B		50 %	Individual essay (3000 words)

On successful completion of this module students will achieve the follo	wing learning	outcomes:				
Module Learning Outcomes		Reference				
Contextualise recent and projected atmospheric greenhouse gas concentrations						
Critically evaluate how variable understandings of Earth system feedbacks generate the current range of predictions for climate change and environmental						
Critically evaluate future scenarios of greenhouse gas emissions, climate change and climate change-related hazards Demonstrate a sophisticated understanding of the key approaches to climate change-related hazard adaptation and mitigation						
				Demonstrate critical engagement with academic literature		
Produce coherent written arguments that demonstrate an understand climate change science	e coherent written arguments that demonstrate an understanding of					
Independent Study Hours:						
Independent study/self-guided study 22		28				
Total Independent Study Hours:	22	28				
Scheduled Learning and Teaching Hours:						
Face-to-face learning 7						
Total Scheduled Learning and Teaching Hours:	7	2				
Hours to be allocated		300				
Allocated Hours	30	00				
The reading list for this module can be accessed via the following link:						
	and climate change within geological timescales Critically evaluate how variable understandings of Earth system feedt generate the current range of predictions for climate change and envi hazards Critically evaluate future scenarios of greenhouse gas emissions, clim and climate change-related hazards Demonstrate a sophisticated understanding of the key approaches to change-related hazard adaptation and mitigation Demonstrate critical engagement with academic literature Produce coherent written arguments that demonstrate an understand climate change science Independent Study Hours: Independent study/self-guided study Total Independent Study Hours: Face-to-face learning Total Scheduled Learning and Teaching Hours: Hours to be allocated Allocated Hours	and climate change within geological timescales     Critically evaluate how variable understandings of Earth system feedbacks generate the current range of predictions for climate change and environmental hazards       Critically evaluate future scenarios of greenhouse gas emissions, climate change and climate change-related hazards     Demonstrate a sophisticated understanding of the key approaches to climate change-related hazard adaptation and mitigation       Demonstrate a sophisticated understanding of the key approaches to climate change-related hazard adaptation and mitigation     Demonstrate critical engagement with academic literature       Produce coherent written arguments that demonstrate an understanding of climate change science     Independent Study Hours:       Independent Study Hours:     22       Scheduled Learning and Teaching Hours:     22       Face-to-face learning     7       Total Scheduled Learning and Teaching Hours:     7       Hours to be allocated     30       Allocated Hours     30       The reading list for this module can be accessed via the following link:     30				

# Part 4: Teaching and Learning Methods

# Part 5: Contributes Towards

This module contributes towards the following programmes of study: