MODULE SPECIFICATION

Part 1: Information			
Module Title	Construction and Environmental Materials		
Module Code	UBGMY9-15-1	Level	Level 4
For implementation from	2021-22		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Environment & Technology	Field	Geography and Environmental Management
Department	FET Dept of Geography & Envrnmental Mgmt		
Module Type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co-requisites	None		
Module Entry Requirements	None		
PSRB Requirements	None		

Part 2: Description

Educational Aims: See Learning Outcomes

Outline Syllabus: The module will cover the mechanical and physical properties, durability and environmental aspects of a range of construction materials, including:

Concrete

Masonry

Steel (including carbon, stainless and weathering steel; high tensile steel; welding and fatigue; corrosion protection)

Timber

Glass

Bitumen

Polymers and emerging materials

You will also cover the associated testing procedures and specifications.

Teaching and Learning Methods: The module will be taught through lectures, introducing the principal concepts and theories, which are then expanded on through practical laboratory sessions.

Part 3: Assessment

The assessment strategy uses a written examination to assess learning outcomes related to the application of knowledge.

The learning outcomes which require use of laboratory data, or time, or research and development of solutions are assessed in a portfolio, to allow students to explore the subject matter and develop their knowledge.

Component A - Examination. Learning outcomes 1, 2, 3
Written examination based on classical questions about construction and environmental materials.

Component B – Portfolio (2000 words). Learning outcomes 4 and 5
The portfolio comprises of a number of smaller work items that require the students to discuss and reflect on the results of laboratory work completed in the module; in the context of material properties, literature and the impact on the use of the material in civil engineering applications.

Resit strategy
2000 word portfolio. The portfolio will comprise a similar range of tasks to the first sit.

First Sit Components	**Final Assessment**	**Element weighting**	**Description**
Examination - Component A	✓	50 %	Examination (2 hours)
Portfolio - Component B		50 %	Portfolio (2000 words)
Resit Components	**Final Assessment**	**Element weighting**	**Description**
Examination - Component A	✓	50 %	Examination (2 hours)
Portfolio - Component B		50 %	Portfolio (2000 words)

Part 4: Teaching and Learning Methods

Learning Outcomes

On successful completion of this module students will achieve the following learning outcomes:

Module Learning Outcomes	**Reference**
Define the mechanical and physical properties of construction materials	MO1
Explain how the composition and structure of construction materials and soils determine their mechanical and physical properties	MO2
Explain mechanisms of corrosion and factors which determine durability	MO3
Assess the engineering properties of construction materials through laboratory testing and data analysis	MO4
Assess the engineering properties of construction materials through a review of literature	MO5

Contact Hours	**Independent Study Hours:**	
	Independent study/self-guided study	114
	Total Independent Study Hours:	114
	Scheduled Learning and Teaching Hours:	
	Face-to-face learning	36
	Total Scheduled Learning and Teaching Hours:	36
	Hours to be allocated	150
	Allocated Hours	150
Reading List	*The reading list for this module can be accessed via the following link:* https://uwe.rl.talis.com/modules/ubgmy9-15-1.html	

Part 5: Contributes Towards
This module contributes towards the following programmes of study: Civil and Environmental Engineering {Foundation} [Sep][SW][Frenchay][5yrs] BEng (Hons) 2020-21 Civil and Environmental Engineering {Foundation} [Sep][FT][Frenchay][4yrs] BEng (Hons) 2020-21