

### **MODULE SPECIFICATION**

Part 1: Information						
Module Title	Facade Materials and Components					
Module Code	UBLMFK-15-M	Level	Level 7			
For implementation from	2018-19	2018-19				
UWE Credit Rating	15	ECTS Credit Rating	7.5			
Faculty	Faculty of Environment & Technology	Field	Architecture and the Built Environment			
Department	FET Dept of Architecture & Built Environ					
Contributes towards	Façade Engineering [Sep][PT][Frenchay][2yrs] MSc 2018-19 Façade Engineering [Sep][FT][Frenchay][1yr] MSc 2018-19					
Module type:	Standard					
Pre-requisites	None	None				
Excluded Combinations	None	None				
Co- requisites	Introduction to Facac	Introduction to Facade Systems 2018-19				
Module Entry requireme	nts None	None				

## Part 2: Description

**Overview**: Co-requisites: Students must have already completed or be currently enrolled in UBLLYS-15-M Introduction to Façade Systems. This requirement is compulsory for FT and PT students. Advisory for CPD students who only intend to take an individual module.

**Educational Aims:** To provide an understanding of the through-life performance of the many materials used in façade construction.

**Outline Syllabus:** This module covers the principal materials used in a contemporary facade with the exception of glass which is covered by a discrete unit on glass and glazing.

Material selection plays a key role in façade design. In addition to providing the façade aesthetic, different materials and their detailing will influence numerous factors including the thermal performance, fire performance, weathertightness and durability.

#### STUDENT AND ACADEMIC SERVICES

Failure to understand how different materials perform, how they should be maintained and limitations to their use will result in a façade which will not perform as intended and ultimately fail prematurely.

#### Content:

Overview of materials including: metal, ceramic, polymeric, timber and fabric. Forming and assembly processes. Durability and processes of degradation. Methods for assessing performance including Failure Mode Effects Analysis (FMEA).

**Teaching and Learning Methods:** The module is delivered by way of five study days for face to face teaching. Recorded lectures and the use of email discussion groups of virtual learning environments (VLEs) and other technology-aided means are also employed.

The module will be delivered by means of a series of lectures, seminars and tutorials.

Lectures and seminars will be used to enable students to support their own independent learning by exploring deeper issues pertaining to Façade Engineering and receiving formative feedback. Occasional speakers will be used to provide up to date material and context to the applications of the subject area.

A series of tutorials are designed to provide knowledge and practical skills relevant to façade engineering.

Presentations by and to the group by the students will also be used to enable students to develop the skills and capabilities to analyse problems, negotiate, make decisions and present solutions to problems. The formative work in the presentation will provide research material useful to the final report.

Directed reading examining the key principles and relevant criteria relating to a number of topics of importance to façade Engineering.

## Part 3: Assessment

A preparatory exercise and presentation allows all students to start at the same basic level of knowledge when starting the intensive week of contact for the module.

The FMEA exercise is based on a real world practical activity which a professional Façade Engineer would need to undertake, modelled around a realistic case study.

The essay supports assimilation and reflection of taught material, with literature and application to real world examples.

There are no group assessments in this module. There are formative individual and group working exercises within the timetabled contact hours.

Preparatory work is assessed through class presentation and supporting written submission.

First Sit Components	Final Assessment	Element weighting	Description
Written Assignment - Component B		37 %	Essay (1500 words)
Presentation - Component A		25 %	Presentation: preparatory exercise
Case Study - Component B	✓	38 %	FMEA Exercise

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Part 4: Teaching and Learning Methods						
Learning Outcomes	On successful completion of this module students will be able to:					
	Module Learning Outcomes					
	MO1	Analyse and identify the primary performance of the many façade materials and their performance when used together and incorporated in complex assemblies				
	MO2		Evaluate, specify and verify the performance of materials			
	MO3	and other detailing	Select materials and design of appropriate assembly, mounting and other detailing			
	MO4	specification of a complex facade thro	Critically evaluate the design, manufacture and material specification of a complex facade through life performance			
	MO5	Demonstrate oral communication skil group environment				
Contact Hours	Contact Hours					
	Independent Study Hours:					
	Independ	118				
		Total Independent Study Hours:	118			
	Scheduled Learning and Teaching Hours:					
	Face-to-fa	32				
		32				
	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/ublmfk-15-m.html					