



Module Specification

Glass and Glazing

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Part 1: Information

Module title: Glass and Glazing

Module code: UBLMG6-15-M

Level: Level 7

For implementation from: 2024-25

UWE credit rating: 15

ECTS credit rating: 7.5

College: College of Arts, Technology and Environment

School: CATE School of Architecture and Environment

Partner institutions: None

Field: Architecture and the Built Environment

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: A module in the MSc Facade Engineering programme. Only suitable as CPD for people with extensive prior knowledge of Facade systems.

Features: Not applicable

Educational aims: To give a comprehensive overview of glass types, environmental and structural performance, safe use, and risk assessment.

Outline syllabus: Content:

The use of glass in Facades has increased dramatically since the development of the float process in the 1950s. The wider use of glass has brought problems such as overheating and safety and processes have been developed to mitigate these problems.

This module begins with lectures to describe the manufacture and properties of glass.

It goes on to look at the various different processing options that may be used to give a glass with improved properties and performance.

The use of glass has a significant impact on the appearance of a facade, and the processing that is undertaken will influence this appearance.

Glass often determines the acoustic performance of a facade. This unit introduces facade acoustics in general, and then focuses on the glazing, the factors that affect the performance, and how the performance may be improved.

Overheating in highly glazed buildings is a real concern. In addition to the consideration of environmental control glasses, this unit will also introduce shading in more general terms.

Safe use of glass is of paramount importance, and correct glass selection is a complex process. This module introduces the idea of a risk assessment based selection process being used to ensure all the relevant factors are considered during this stage of the facade design.

Finally the module looks at more advanced/novel uses of glass, such as the structural use of glass and threat resistance.

Part 3: Teaching and learning methods

Teaching and learning methods: The module will be delivered by means of:

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

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

Contact Hours:

The module is delivered by way of five study days for face to face teaching.

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

MO1 Appraise how the performance, appearance and safety of glass products are affected by different aspects of the manufacturing process.

MO2 Critically evaluate the role that glass and glazing plays in the sustainable performance of a building.

MO3 Contrast the different ways glass is fixed into glazing systems and perform an installation risk assessment of a proposed glass product for a given façade design of a high rise commercial building.

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 118 hours

Face-to-face learning = 32 hours

Total = 0

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/modules/ublmg6-15-m.html) via the following link <https://uwe.rl.talis.com/modules/ublmg6-15-m.html>

Part 4: Assessment

Assessment strategy: Assessment will be through a written assignment.

The written assignment will be in the form of a report that examines the performance/appearance of a glass product and risk assessment of a typical installation assembly of that product. This develop real world skills at a critical level expected leaders in the industry.

Resit assessment will follow the same format as the first sit.

Assessment tasks:

Written Assignment (First Sit)

Description: Report on Glass Risk Assessment (2,500 words)

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3

Written Assignment (Resit)

Description: Report on Glass Risk Assessment (2,500 words)

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Façade Engineering [Frenchay] MSc 2024-25

Façade Engineering [Frenchay] MSc 2024-25

Façade Engineering [Frenchay] MSc 2023-24