



## MODULE SPECIFICATION

Part 1: Information			
Module Title	Technology and Design Studio 2		
Module Code	UBLMGG-30-2	Level	Level 5
For implementation from	2020-21		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	Faculty of Environment & Technology	Field	Architecture and the Built Environment
Department	FET Dept of Architecture & Built Environ		
Module type:	Project		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p><b>Overview:</b> This module aims to apply the theories and concepts studied in Level 1. To enable the student to provide design solutions to specific problems, a consolidating of the work on technology, structures, materials and building physics will be integrated and related to functional design. It provides analysis, synthesis and technical evaluation at differing scales of building design.</p> <p><b>Educational Aims:</b> In addition to the Learning Outcomes the educational experience may explore, develop, and practise but not formally discretely assess the following:</p> <p>Working as a member of a group and meeting obligations to others within the module cohort.</p> <p>The use of learning resources in support of studio practice, including building Regulation Guidance and, in particular, research methods to support project development.</p> <p>Professional habits of work, time-keeping and punctuality.</p> <p><b>Outline Syllabus:</b> The work in this Module is project-based and the following examples are indicative of typical projects that the student would be expected to undertake:</p> <p>A mix of traditional and computer aided design methods would be an integral aspect of any</p>

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project.

A small introductory project to study aspects of fabric, components and finishes.

A design project in response to client needs including aspects of reuse refurbishment and ergonomics.

A research project into current environmental and sustainable design, including health and safety legislation.

An integrating project to develop functional aspects in the design of interior space and provide an environment for a good human experience.

To develop in each design studio project; a concept, scheme development, analysis and detail design up to working drawings.

To understand how specific regulations play a defining role in shaping design projects.

### Technology Syllabus

Technology and Design Studio 2 introduces the principles of contemporary 'frame-structured' construction as these are employed in a non-domestic medium-to-large scale of building. This technology is discussed with reference to the thematic questions and traditional construction introduced at Level 1. These key questions and associated syllabus elements are as follows:

Structural Principles and the sizing of structural elements used in contemporary technology using framed structures.

Material Properties of contemporary building materials (concrete, plastic composites, steel, for example)

Environmental Comfort in domestic and non-domestic environments.

Building Physics and thermal performance in domestic and non-domestic buildings.

Construction Detailing using contemporary materials.

Poetics and Problem-Solving – integration of contemporary building technology with architectural ideas.

Assembly, Maintenance and Safety – current construction processes, comparative analysis of procurement routes and assessment of health and safety.

Data and Research – methods of predicting building performance; and fire escape in non-domestic buildings.

Ethics and Value – the financial measurement of building construction, development for profit and the ethical role of the construction professional.

The Portfolio will also include further in-depth explanation of the student's projects technical strategies and detail designs demonstrating their learning of this technical syllabus. This will include:

General Arrangement Drawings – demonstrating the organisation of structure and construction envelope for a frame-structured building of three or more storeys; including service runs, fire strategy and environmental strategy.

The design and explanation of Building Elements – in detail model and detail drawing that demonstrates how construction detailing has informed an architectural idea; and how it conforms to necessary regulations.

### **Teaching and Learning Methods:** Scheduled learning

As detailed above the strategy for the module is to provide the students with an integrated

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understanding of architectural design and construction technology delivered as a studio-based and problem-centred learning experience. To further develop the concepts and theories of construction, whilst developing an attitude towards sustainable and environmental design using project briefs as a vehicle for this output. This will be achieved through the following methods:

Lectures, seminars, small group tutorials, project supervision, demonstration, practical classes and workshops; fieldwork; supervised time in studio/workshop.

### Independent learning

In order to fulfil the requirements of the module a certain amount of independent learning is required. This time is used to support the taught contact sessions and in preparation of the technical assessment. This will be achieved through the following methods: hours engaged with essential reading, verbal and visual presentation preparation, portfolio preparation and completion etc.

This module will be delivered as follows:

132 hours directed contact time that includes lecture based sessions, workshop sessions, small-group design seminars offering specific tutorial support on project work, and skills workshops led by technical support staff.

118 hours are scheduled for the assimilation and development of knowledge through coursework preparation in the form of design projects, including self-directed learning within a timetabled Design Studio space.

A final 50 hours are scheduled for final preparation of the portfolio assessment through informal reviews.

Total 300 hours

### Part 3: Assessment

100% of the module mark is awarded for the Portfolio submitted at the formal assessment point for the module. The Design Portfolio, is formally understood by professional validating bodies as the vehicle suitable for the assessment of an architectural technology student and, as such is the assessment vehicle identified for this module.

Formative review and assessment occurs at the conclusion of each of the design projects taken during the year. Each project may differently emphasise an aspect of the learning outcomes identified for the module and this particular emphasis is expressed to the student as part of the project brief. The formative review is seen as a way to feedback students the improvements needed to complete the portfolio.

First Sit Components	Final Assessment	Element weighting	Description
Portfolio - Component A	✓	100 %	Portfolio
Resit Components	Final Assessment	Element weighting	Description
Portfolio - Component A	✓	100 %	Portfolio

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<b>Part 4: Teaching and Learning Methods</b>																			
Learning Outcomes	On successful completion of this module students will achieve the following learning outcomes:																		
	<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: left;"><b>Module Learning Outcomes</b></th> <th style="text-align: left;"><b>Reference</b></th> </tr> </thead> <tbody> <tr> <td>Generate professional-standard communications related to fabric, components and finishes</td> <td>MO1</td> </tr> <tr> <td>Prepare designs in response to a well defined brief focussing on sustainable design and environmental impact</td> <td>MO2</td> </tr> <tr> <td>Investigate, analyse and develop detailed design solutions</td> <td>MO3</td> </tr> <tr> <td>Apply relevant regulations to design projects</td> <td>MO4</td> </tr> <tr> <td>Understand the principle of elemental costing</td> <td>MO5</td> </tr> <tr> <td>Understand and demonstrate the principles of information and communication technologies and desktop publishing to design, process and communicate integrated text, images and illustrations in multimedia sequences, reports and documents</td> <td>MO6</td> </tr> <tr> <td>Reproduce knowledge of contemporary (frame-structured) construction technologies and combine principles and detail of this technology with design decision-making in the design of a general arrangement layout for the fabric, services and structure of a non-domestic building typology of three or more storeys</td> <td>MO7</td> </tr> <tr> <td>Apply knowledge of contemporary construction techniques such that technical strategies and materials are selected in the detailed design of an architectural component that is refined to convey a declared architectural intention</td> <td>MO8</td> </tr> </tbody> </table>	<b>Module Learning Outcomes</b>	<b>Reference</b>	Generate professional-standard communications related to fabric, components and finishes	MO1	Prepare designs in response to a well defined brief focussing on sustainable design and environmental impact	MO2	Investigate, analyse and develop detailed design solutions	MO3	Apply relevant regulations to design projects	MO4	Understand the principle of elemental costing	MO5	Understand and demonstrate the principles of information and communication technologies and desktop publishing to design, process and communicate integrated text, images and illustrations in multimedia sequences, reports and documents	MO6	Reproduce knowledge of contemporary (frame-structured) construction technologies and combine principles and detail of this technology with design decision-making in the design of a general arrangement layout for the fabric, services and structure of a non-domestic building typology of three or more storeys	MO7	Apply knowledge of contemporary construction techniques such that technical strategies and materials are selected in the detailed design of an architectural component that is refined to convey a declared architectural intention	MO8
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Contact Hours	<b>Independent Study Hours:</b>																		
	Independent study/self-guided study	118																	
	<b>Total Independent Study Hours:</b>	118																	
	<b>Scheduled Learning and Teaching Hours:</b>																		
	Face-to-face learning	132																	
	Project work (individual or group)	50																	
	<b>Total Scheduled Learning and Teaching Hours:</b>	182																	
	<b>Hours to be allocated</b>	300																	
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	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/ublmgg-30-2.html">https://uwe.rl.talis.com/modules/ublmgg-30-2.html</a></p>																	

**Part 5: Contributes Towards**

This module contributes towards the following programmes of study:

Architectural Technology and Design [Sep][FT][Frenchay][3yrs] BSc (Hons) 2019-20

Architectural Technology and Design [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20

Architectural Technology and Design {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2018-19

Architectural Technology and Design {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2018-19

Architectural Technology and Design [Sep][PT][Frenchay][5yrs] BSc (Hons) 2018-19