



MODULE SPECIFICATION

Part 1: Information			
Module Title	Architectural Technology and Environment 2		
Module Code	UBLMRJ-15-2	Level	Level 5
For implementation from	2019-20		
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		
Module type:	Standard		
Pre-requisites	Design Studio 1 2019-20		
Excluded Combinations	None		
Co- requisites	Architecture and Design Studio 2 2019-20		
Module Entry requirements	None		

Part 2: Description
<p>Overview: Pre-requisites: students must take Design Studio 1 UBLLYC-60-1</p> <p>Educational Aims: See Learning Outcomes</p> <p>Outline Syllabus: Technology Syllabus:</p> <p>Advanced Technology and Environment 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:</p> <p>Structural Principles and the sizing of structural elements used in contemporary technology using framed structures.</p> <p>Material Properties of contemporary building materials (concrete, plastic composites, steel, for example)</p> <p>Environmental Comfort in domestic and non-domestic environments.</p>

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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.

Typically, the Technical Report of the submission will include three work-elements through which students are to demonstrate their learning of this technical syllabus:

General arrangement drawings – demonstrating the organisation of structure and construction envelope for a frame-structured building of three or more storeys;

The design of a building element – in model and detail drawing that demonstrates how construction detailing has informed an architectural idea;

A technical logbook –this is to be an edited account of the student's work that demonstrates the knowledge they have gained from their studio work and from the lecture and seminar series associated with the module.

Teaching and Learning Methods: Scheduled learning:

As detailed above the strategy for the module is to introduce concepts and theories of construction, to develop the ability to understand building defects and condition, to undertake detailed site analysis and surveys, to complete a small design exercise and by calculating the required structural elements build and test part of the design.

This will be achieved through the following methods:
lectures, seminars, 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 test and Technical Logbook. This will be achieved through the following methods: hours engaged with essential reading, case study preparation, assignment preparation and completion etc. These sessions constitute an average time per level as indicated in the table below. Scheduled sessions may vary slightly depending on the module choices you make.

This module will be delivered as follows:

40 hours contact time that includes lecture based sessions, workshop sessions exploring theories of construction, small group seminars and technical skills sessions

9 hours are dedicated to laboratory sessions led by technical support staff

41 hours are scheduled for self directed learning in developing the output from survey work, case study preparation, design project and lab testing

24 hours technical report preparation

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36 hours engaged with essential reading

Total = 150 hours

Part 3: Assessment

50% of the module mark is awarded for the Technical Logbook submitted at the formal assessment point for the module. This Technical Logbook is to include the General Arrangement Drawing, Building Element and Technical Logbook described above.

Component A is an on-line test element that will test the body of technology knowledge and accounts for 50% of the module mark.

First Sit Components	Final Assessment	Element weighting	Description
Report - Component B		50 %	Technical report
Examination - Component A	✓	50 %	Test
Resit Components	Final Assessment	Element weighting	Description
Report - Component B		50 %	Technical report
Examination - Component A	✓	50 %	Test

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
	Demonstrate an ability to investigate, critically appraise and select structural systems, construction methods and materials.	MO1
	Demonstrate an ability to detail frame buildings	MO2
	Demonstrate an understanding of environmental comfort and thermal performance in non-domestic buildings; also to demonstrate an understanding of the methods of predicting building performance and fire escape.	MO3
	Demonstrate an understanding of the methods of estimating the cost and the ethical role of the construction professional. Apply relevant regulations to design projects and assessment of health and safety	MO4
	Understand and demonstrate the principles of information and communication technologies and desktop publishing to design process	MO5
	Reproduce knowledge of contemporary (frame-structured) construction technologies and demonstrate the knowledge and detail principles of this technology in relation to the design decision-making process	MO6
	Apply knowledge of contemporary construction techniques and material science to convey a declared architectural intention	MO7
Contact Hours	Independent Study Hours:	
	Independent study/self-guided study	101

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	Total Independent Study Hours:	101
	Scheduled Learning and Teaching Hours:	
	Face-to-face learning	40
	Laboratory work	9
	Total Scheduled Learning and Teaching Hours:	49
	Hours to be allocated	150
Allocated Hours	150	
Reading List	<p><i>The reading list for this module can be accessed via the following link:</i></p> <p>https://uwe.rl.talis.com/index.html</p>	

Part 5: Contributes Towards

This module contributes towards the following programmes of study:

Architecture [Sep] [FT] [Frenchay] [3yrs] BSc (Hons) 2018-19