



## MODULE SPECIFICATION

Part 1: Information			
Module Title	Advanced Technology and Environment 3		
Module Code	UBLMT3-15-3	Level	Level 6
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	Architectural Technology and Environment 2 2019-20		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p><b>Overview:</b> This module contributes to the final year of study in the BSc Hons Architecture degree and, although it is not corequisite with that programme's final studio module, should encourage close links with related architectural design being undertaken by the student.</p> <p>The module requires the students to marshal the technical knowledge they have developed over the preceding years of study and exercise design judgment in the use of this knowledge to develop a technical strategy that is integrated with their design intentions for a design project.</p> <p><b>Educational Aims:</b> This module encourages extended in-depth explanation of a student's technical strategies and a focused exploration of selected detail designs, thus demonstrating the student's understanding of and skill in the application of contemporary construction technology.</p> <p>Outcomes of the module may include the following:</p> <p>A description of the 'General Arrangement' of the building – demonstrating its organization and type of structure, building envelope and its relationship with the primary and secondary structure, services, fire escape strategy and environmental strategies;</p> <p>The design and explanation of architectural elements – in a detailed drawing that demonstrates how construction detailing has informed an architectural idea; and how it conforms to necessary</p>

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regulations;

The declaration and substantiation of an environmental and sustainability strategy for a building;

A costing and specification exercise highlighting material choice, quantities and of materials and embodied energy.

**Outline Syllabus:** The students develop a detailed integrated technology and environmental strategy for their buildings and as part of this requirement will be expected to evaluate and provide information in response to the following thematic questions:

Structural Principles and Structural Sizes  
 Material Choices and Properties  
 Environmental Comfort  
 Building Physics and Thermal Performance  
 Construction Detailing  
 Construction Poetics  
 Assembly, Maintenance and Safety  
 Data and Research  
 Ethics and Value

**Teaching and Learning Methods:** Submission for this module will be divided equally between the drawn and annotated explanation of the strategic and detailed design of architectural proposal in the form of a drawn exam (A) and a coursework submission in the form of a Report (B). The report will consist of drawings, sketches and diagrams and approximately 2000 words. The aims of the report at this level are to create an opportunity for students to understand the necessity for research with design practice and to develop a deeper understanding of a particular building precedent in detailed design and technology.

### Part 3: Assessment

Submission for this module will be divided equally between a drawn exam prepared in response to a seen paper (A) and a coursework submission in the form of a Detailed Design Report (B). The student is to develop their preparatory work for the exam as a demonstration of their research and resolution of an area of detailed design.

The Detailed Design Report (B) will consist of drawings, sketches and diagrams with accompanying written analysis and reflection. The development of this report will draw upon a lecture series accompanying the module and will provide an opportunity for the student to demonstrate their ability to link technical research with design practice and to develop a deeper understanding of a particular precedent in detailed design and technology.

Both assessment vehicles support and develop skills in what is understood to be one of the central professional activities of an architectural designer, which is understood to be the development of design solutions and description of these using drawings, models and also written technical description. To this end the two assessments mimic design activity that students will undertake if they choose to continue in architectural practice.

First Sit Components	Final Assessment	Element weighting	Description
Report - Component B		50 %	Detailed design report (2000 words)
Examination - Component A	✓	50 %	Seen drawn exam (3 hours)
Resit Components	Final Assessment	Element weighting	Description
Report - Component B		50 %	Detailed design report (2000 words)
Examination - Component A	✓	50 %	Seen drawn exam (3 hours)

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<b>Part 4: Teaching and Learning Methods</b>																	
Learning Outcomes	<p>On successful completion of this module students will achieve the following learning outcomes:</p> <table border="1"> <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>Establish a set of building performance and technical criteria (including physical and regulatory items) for a specific proposed architectural project; and describe this general arrangement of services, structure and building envelope with accuracy and in detail</td> <td>MO1</td> </tr> <tr> <td>Evaluate a range of construction technologies, then identify and research a technical strategy containing material, component and system choices that be used to compose the detailing of an integrated element with an architectural and technical intention</td> <td>MO2</td> </tr> <tr> <td>Demonstrate a maturing understanding of the integration of construction technologies, and sustainable building practice</td> <td>MO3</td> </tr> <tr> <td>Demonstrate an ability to select and utilize a structural and constructional technology appropriate to the form and language of architecture of the project in hand and provide a technical and cost rationale for those material selections</td> <td>MO4</td> </tr> <tr> <td>Demonstrate an ability to choose and utilize materials appropriate to the form and language of architecture of the project in hand and provide a technical and cost rationale for those material selections</td> <td>MO5</td> </tr> <tr> <td>Demonstrate an ability to choose and utilise the appropriate visualisation tools and communicate architectural design ideas and construction technology drawings through the use of a variety of drawn and modelling media</td> <td>MO6</td> </tr> </tbody> </table>	<b>Module Learning Outcomes</b>	<b>Reference</b>	Establish a set of building performance and technical criteria (including physical and regulatory items) for a specific proposed architectural project; and describe this general arrangement of services, structure and building envelope with accuracy and in detail	MO1	Evaluate a range of construction technologies, then identify and research a technical strategy containing material, component and system choices that be used to compose the detailing of an integrated element with an architectural and technical intention	MO2	Demonstrate a maturing understanding of the integration of construction technologies, and sustainable building practice	MO3	Demonstrate an ability to select and utilize a structural and constructional technology appropriate to the form and language of architecture of the project in hand and provide a technical and cost rationale for those material selections	MO4	Demonstrate an ability to choose and utilize materials appropriate to the form and language of architecture of the project in hand and provide a technical and cost rationale for those material selections	MO5	Demonstrate an ability to choose and utilise the appropriate visualisation tools and communicate architectural design ideas and construction technology drawings through the use of a variety of drawn and modelling media	MO6		
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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/ublmt3-15-3.html">https://uwe.rl.talis.com/modules/ublmt3-15-3.html</a></p>																

<b>Part 5: Contributes Towards</b>
This module contributes towards the following programmes of study: