



## MODULE SPECIFICATION

Part 1: Information			
Module Title	Construction Technology and Services		
Module Code	UBLMYS-30-1	Level	Level 4
For implementation from	2019-20		
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:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p><b>Educational Aims:</b> See Learning Outcomes.</p> <p>In addition, the educational experience may explore, develop, and practise but not formally discretely assess the following:</p> <p>Reading and interpretation of current building regulation documents and the application of these towards the development of proposed construction methods.</p> <p>Research and investigation techniques, including use of the print and online resources made available from UWE Library</p> <p><b>Outline Syllabus:</b> The following list is indicative of the subject areas chosen. These may vary slightly to meet Programme needs or changes to contemporary practice and are necessarily given equal weighting:</p> <p>Structures and Load Distribution:</p> <ul style="list-style-type: none"> <li>-Basic structural terminology, including classification of forces, loads, structural elements and forms.</li> <li>-Application of basic structural principles for both load bearing domestic buildings and simple framed structures.</li> </ul>

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Overview of “the building” as an integrated form and “system” of connected parts.

The common construction techniques used for the major components of domestic dwellings, including analysis of related design criteria / conditions and resulting construction choice from common methods.

- Foundations
- Ground floors,
- Building Enclosure (overview)
- Exterior walls
- Roof structure
- Roof coverings and enclosure
- Interior construction (partitions, stairs, second-fix)
- Domestic building services.

Although mainly based on current construction methods, examples from the recent past will also be used in order to illustrate the evolution of current techniques and complement key principles as appropriate.

The content for each building category will also include discussion of related resource and operational concerns as well as an introduction to analysis of various building site and design conditions that influence the choice of specific methods of construction. Environmentally responsible design and low-carbon methods of construction are also a consistent theme.

Relating and adapting domestic construction approaches towards small, simple framed structures.

Technical drawing as a medium of communication for construction;

- Technical drawing as a language
- Basic technical sketching techniques
- Drawing interpretation

Sustainable Building Assessment Programmes and classification systems.

Integrated, passive design methods incorporating construction fabric and form with building services

**Teaching and Learning Methods:** This module will be formally presented through a series of introductory lectures and supporting films. Student-centred learning will take place in less formal and smaller seminar / tutorial sessions where students will have the opportunity to interpret and discuss a range of problems and issues related to construction technology and the provision of building services.

Formative work will revolve around reinforcement tasks and application exercises outlined in the provided seminar work booklets and the UWE Construction Website. In addition, a series of the seminars will place a specific focus on the development of technical drawing, sketching and interpretation skills. Finally, a series of short web-based self assessment quizzes will enable students to monitor their own progress in assimilating the reading material and seminar tasks.

In addition to the Scheduled Learning sessions for the modules, individual students should expect to commit the following activities based on the hours outlined above:

Scheduled learning includes lectures, seminars, tutorials, project supervision, demonstration, practical classes and workshops; fieldwork; external visits; work-based learning; supervised time in studio/workshop.

Independent learning includes 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.

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### Part 3: Assessment

This module will be assessed by both coursework and examination.

The examination will occur following Teaching Block number 2 and is a standard examination that covers material from the entire academic year. The exam will require students to respond to provide adequate descriptions, explanations and analysis of construction solutions. Some questions will require sketches and diagrams as part of the response and students will also be assessed on key aspects from assigned essential reading.

The Coursework is composed of two (2) separate elements, each worth 50% of the total coursework component grade. Each assessment has also been constructed and organised in manner that is aimed at offering students regular feedback on formative work student while encouraging consistent engagement with lectures and tutorial sessions.

Technical Building Proposal: (50% of Component B)

This task involves a short report and written technical proposal that requires the student to review a given building construction scenario and propose and defend methods of construction that are appropriate for that situation. The proposal shall be further supported through the provision of technical details that graphically represent the proposed solution.

Tutorial Exercise Portfolio: (50% of Component B)

Tutorial work booklets issued to students will contain a series of formative exercises and assigned tasks that reinforce concepts delivered during the lectures. This coursework element is an assembled collection of these weekly tasks which is intended to reinforce the student's understanding of each major building component as they are introduced.

The Tutorial Exercise Portfolio will include:

A collection of technical detailing sketches, diagrams and drawing analysis exercises which students will have previously for weekly seminar sessions. Feedback will be provided on both technical accuracy and graphic communication skills.

a. Analysis exercises where students are required to suggest and justify appropriate broad construction choices for a given major building components based upon specific building conditions and scenarios.

b. In-Seminar Tests: During the course of the academic year, 6 random, unannounced tests will be held during the tutorial contact sessions. They are multiple choice format and students will be able to record / submit only their best 3 results. These tests are intended to provide:

An opportunity to measure engagement;

An opportunity for students to consolidate their learning;

Instant feedback (the students mark the multiple choice element) and this returned to them during the session.

An opportunity to gauge weaknesses and an agenda for in-seminar discussion;

Frequent diagnostic tool regarding the drawing learning outcome. (The drawn element is marked by the tutor who also verifies the multiple choice mark and records it).

These tests may move to on-line testing or digital marking in due course.

First Sit Components	Final Assessment	Element weighting	Description
Project - Component B		30 %	Technical building proposal (750 words plus drawings)
Portfolio - Component B		20 %	Tutorial exercise portfolio
Examination - Component A	✓	50 %	Examination
Resit Components	Final Assessment	Element weighting	Description

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Portfolio - Component B		50 %	Technical analysis report and drawing portfolio (1500 words plus drawings)
Examination - Component A	✓	50 %	Examination (3 hours)

<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" style="width: 100%; border-collapse: collapse;"> <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>Describe and explain common materials, methods and approaches used in the construction of load-bearing domestic housing and simple framed structures.</td> <td>MO1</td> </tr> <tr> <td>Explain and discuss the basic structural and load distribution principles associated with the construction of load-bearing domestic housing and simple framed structures.</td> <td>MO2</td> </tr> <tr> <td>Describe and explain the common options and operating principles for building services typically provided for both domestic housing and smaller industrial and commercial buildings.</td> <td>MO3</td> </tr> <tr> <td>Analyse site and design related characteristics for proposed housing and simple frame building projects; and suggest appropriate materials, construction methods and building services that address these observed conditions.</td> <td>MO4</td> </tr> <tr> <td>Read and interpret drawings and produce technical sketches and details related to common construction methods and building services provision for load-bearing domestic housing and simple framed structures.</td> <td>MO5</td> </tr> <tr> <td>Discuss and explain how current methods of construction for load-bearing domestic houses and simple framed structures have evolved from past solutions and the important influential factors involved.</td> <td>MO6</td> </tr> <tr> <td>List and describe the range of production resources and operations associated with the construction of load-bearing domestic houses and simple framed structures, including required temporary works and considerations of health and safety.</td> <td>MO7</td> </tr> <tr> <td>Describe and explain aspects of sustainable building practice associated with load-bearing domestic housing and simple framed structures, including integrated, passive design methods.</td> <td>MO8</td> </tr> </tbody> </table>	<b>Module Learning Outcomes</b>	<b>Reference</b>	Describe and explain common materials, methods and approaches used in the construction of load-bearing domestic housing and simple framed structures.	MO1	Explain and discuss the basic structural and load distribution principles associated with the construction of load-bearing domestic housing and simple framed structures.	MO2	Describe and explain the common options and operating principles for building services typically provided for both domestic housing and smaller industrial and commercial buildings.	MO3	Analyse site and design related characteristics for proposed housing and simple frame building projects; and suggest appropriate materials, construction methods and building services that address these observed conditions.	MO4	Read and interpret drawings and produce technical sketches and details related to common construction methods and building services provision for load-bearing domestic housing and simple framed structures.	MO5	Discuss and explain how current methods of construction for load-bearing domestic houses and simple framed structures have evolved from past solutions and the important influential factors involved.	MO6	List and describe the range of production resources and operations associated with the construction of load-bearing domestic houses and simple framed structures, including required temporary works and considerations of health and safety.	MO7	Describe and explain aspects of sustainable building practice associated with load-bearing domestic housing and simple framed structures, including integrated, passive design methods.	MO8
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	<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/ublmys-30-1.html">https://uwe.rl.talis.com/modules/ublmys-30-1.html</a></p>	

<b>Part 5: Contributes Towards</b>	
<p>This module contributes towards the following programmes of study:</p> <p>Quantity Surveying and Commercial Management [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20</p> <p>Building Surveying [Sep][FT][Frenchay][3yrs] BSc (Hons) 2019-20</p> <p>Building Surveying [Sep][PT][Frenchay][5yrs] BSc (Hons) 2019-20</p> <p>Building Surveying [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20</p> <p>Building Surveying {Apprenticeship} [Sep][PT][Frenchay][5yrs] BSc (Hons) 2019-20</p> <p>Construction Project Management [May][FT][AustonSingapore][3yrs] BSc (Hons) 2019-20</p> <p>Construction Project Management [May][PT][AustonSingapore][5yrs] BSc (Hons) 2019-20</p> <p>Construction Project Management [Feb][PT][AustonSingapore][5yrs] BSc (Hons) 2019-20</p> <p>Construction Project Management [Feb][FT][AustonSingapore][3yrs] BSc (Hons) 2019-20</p> <p>Construction Project Management [Sep][FT][AustonSingapore][3yrs] BSc (Hons) 2019-20</p> <p>Construction Project Management [Sep][PT][AustonSingapore][5yrs] BSc (Hons) 2019-20</p> <p>Construction Project Management [Sep][PT][Frenchay][5yrs] BSc (Hons) 2019-20</p> <p>Construction Project Management [Sep][FT][Frenchay][3yrs] BSc (Hons) 2019-20</p> <p>Construction Project Management [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20</p> <p>Quantity Surveying and Commercial Management [Sep][FT][Frenchay][3yrs] BSc (Hons) 2019-20</p> <p>Quantity Surveying and Commercial Management [Sep][PT][Frenchay][5yrs] BSc (Hons) 2019-20</p> <p>Quantity Surveying and Commercial Management {Apprenticeship} [Sep][PT][Frenchay][5yrs] BSc (Hons) 2019-20</p> <p>Quantity Surveying and Commercial Management {Apprenticeship} [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20</p> <p>Building Surveying {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2018-19</p> <p>Building Surveying {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2018-19</p> <p>Quantity Surveying and Commercial Management {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2018-19</p> <p>Quantity Surveying and Commercial Management {Foundation}[Sep][SW][Frenchay][5yrs] BSc (Hons) 2018-19</p>	