

## MODULE SPECIFICATION

Part 1: Information						
Module Title	Energy Management and Performance Evaluation					
Module Code	UBLMGP-15-3		Level	Level 6		
For implementation from	2018-19	018-19				
UWE Credit Rating	15		ECTS Credit Rating	7.5		
Faculty	Faculty of Environment & Technology		Field	Architecture and the Built Environment		
Department	FET Dept of Geography & Envrnmental Mgmt					
Contributes towards	Architectural Technology and Design {Top-Up} [Aug][FT][SHAPE][1yr] BSc (Hons) 2018- 19					
Module type:	Standard					
Pre-requisites None						
Excluded Combinations None						
Co- requisites None						
Module Entry requireme	nts None	None				

### Part 2: Description

**Educational Aims:** In addition to Learning Outcomes, the educational experience may explore, develop, and practise but not formally discretely assess the following:

Professionalism with commercial clients through the quality of agendas, minutes, formal emails and general conduct.

**Outline Syllabus:** This is an indicative list of what the syllabus will contain. Subjects will not necessarily be taught in this order nor be of equal weighting:

Management in the Energy Industry: structure of the energy supply industry, energy-use regulations and certification schemes, incentive schemes, energy in facility management, energy markets, tariffs.

Data Gathering and Analysis: data gathering techniques, energy audits, monitoring and

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instrumentation, metering and sub-metering, EBMS systems, surveying, CUSUM analysis, Sankey diagrams, benchmarking.

Performance Evaluation: technical and financial analysis of: mechanical systems, control systems, electrical systems; encouraging energy efficient behaviour change; soft landings.

**Teaching and Learning Methods:** Contact time; lectures, tutorials, computer labs and visits: 36 hours

Assimilation and development of knowledge: 74 hours

Presentation preparation: 10 hours

Coursework Preparation: 30 hours

Total study time: 150 hours

Scheduled learning

For directed study students are expected to undertake the tasks assigned to them during the lectures/tutorials, building up a portfolio of work that will support final presentations.

#### Independent learning

For self-directed study, students are expected to undertake a comprehensive review of the literature relevant to the core topics and their chosen individual topics. Each element of syllabus will involve an introduction of the topics through lectures, when students will receive an explanation of the context of the subject and an indication of the depth to which they are expected to study it. Students will be supported in their study with on-line resources including publications, websites, video clips and blackboard resources.

#### Part 3: Assessment

This assessment is designed to give the students a 'real world' focus around which all aspects of the topics can be related. Working in teams, with each team assessing a case study organisation and case study building, students will undertake industry standard assessments and use this as a basis to develop individual feasibility studies of energy improvements to the building. Undertaking this work will require student to reflect on all aspects of the module and provide a deep learning experience.

The Assessment:

Component A - Presentation (25%)

This controlled assessment is a presentation of the feasibility study by the students and critical examination by the assessment team. Each student will present their case study using support material such as posters and handouts.

Component B - Report (75%) - 2000 words

A feasibility study that examines the performance of an existing energy system and evaluates a related upgrade both technically and financially, clearly assessing the risks and opportunities.

First Sit Components	Final Assessment	Element weighting	Description
Report - Component B		75 %	Feasibility report (2000 words)
Presentation - Component A	~	25 %	Case Study presentation (20 minutes)
Resit Components	Final Assessment	Element weighting	Description

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Report - Component B		75 %	Feasibility report (2000 words)
Presentation - Component A	$\checkmark$	25 %	Case Study presentation (20 minutes)

	Part 4: T	eaching and Learning Methods				
Learning Outcomes	On successful completion of th	is module students will be able to:				
		Module Learning Outcomes				
	MO1					
		consultation into energy-use regulation				
	MO2	Synthesise the role of an Energy Manager in preparing a				
		feasibility report for an energy related project in an existing				
		building, accounting for energy genera				
		technology assessment, regulation compliance, qualification				
		incentive schemes, lifecycle costs and user acceptability				
	MO3	valuation – covering the , sustainability and user				
		satisfaction – using recognised proce				
		software and field data collected usin and audit techniques	g a range of measurement			
	MO4	Present their post-occupancy evaluat	ion and feasibility study to a			
		critical audience, defending their met				
		theoretical foundations, while clearly				
		opportunities	evaluating the hole and			
Contact Hours	Contact Hours					
	Independent Study Hours:					
	Independent study/s	114				
		Total Independent Study Hours:	114			
	Scheduled Learning and Teaching Hours:					
	Face-to-face learning	36				
	Total Sch	eduled Learning and Teaching Hours:	36			
	Hours to be allocated	150				
	Allocated Hours		150			
Reading List	The reading list for this module can be accessed via the following link:					
	https://uwe.rl.talis.com/modules	s/ublmgp-15-3.html				