

Liverpool John Moores University

Title: CONSTRUCTION SUSTAINABILITY
Status: Definitive
Code: **4534NCCG** (129471)
Version Start Date: 01-08-2021

Owning School/Faculty: Civil Engineering and Built Environment
Teaching School/Faculty: Accrington Campus

Team	Leader
Fiona Borthwick	Y

Academic Level: FHEQ4
Credit Value: 20
Total Delivered Hours: 48
Total Learning Hours: 200
Private Study: 152

Delivery Options

Course typically offered: S1, S2 and NS2 (S2 for Jan)

Component	Contact Hours
Lecture	48

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	Case Study	Case Study Analysis	50	
Report	Assignment	Assignment	50	

Aims

This module looks at the importance of environmental assessment and monitoring in reducing the environmental impact of the built environment. Understanding of the types of environmental impact will be covered and also how this affects the environment. On successful completion of this module students will have the knowledge and skills to undertake an environmental assessment of a building, a refurbishment or an adaptation and compare the resulting performance to similar buildings.

Learning Outcomes

After completing the module the student should be able to:

- 1 Describe the meaning of sustainability in relation to the built environment
- 2 Compare the ways sustainability in construction can be assessed and monitored
- 3 Review the features of different environmental assessment methods
- 4 Carry out an environmental assessment on a building, a refurbishment and/or an adaptation and compare the resulting performance to similar buildings

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Case Study Analysis	2		
Assignment	1	3	4

Outline Syllabus

The meaning of sustainability
Causes and consequences of the changes to the global environment
The three pillars of sustainability
The reasons the built environment is unsustainable
The importance of balancing the need for buildings with the impact on the environment
Barriers to sustainability within construction
Sustainability issues within new builds, renovations, refurbishment (domestic, commercial, industrial, office), adaptations and demolition
Quantitative measures of sustainability
Qualitative measures of sustainability
Change through regulation
Change through the market
Industry standard environmental impact assessment methods for buildings
Industry standard environmental impact assessment methods for materials and components
Selecting an environmental assessment method appropriate to a project
Carry out an environmental assessment of a project
Identify ways projects can improve its environmental impact
Costs and benefits of a project

Learning Activities

These will not normally be traditional didactic lectures in which the student plays little active part, but will be delivered in small groups of up to 20 students in which their interaction with their tutor is a key ingredient of their learning experience. Students will receive approximately 30 hours of taught material, supported by in-class exercises and discussions designed to help student assimilate learning and to

provide early informal feedback on their progress.

Independent Study

Students are expected to undertake personal reading and research into topic areas that have been stimulated from the lectures and seminars. This reading will enhance their academic work and enable valid contribution to lectures and seminars.

VLE support

This will provide links to academic web-sites and on-line journals, facilitate group discussion outside of the classroom, access to outline lecture notes, and provide students with assessment details.

Notes

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