

# Sustainable and Lean Principles Within Construction

## **Module Information**

2022.01, Approved

### **Summary Information**

Module Code	7412BEPGDL
Formal Module Title	Sustainable and Lean Principles Within Construction
Owning School	Civil Engineering and Built Environment
Career	Postgraduate Taught
Credits	20
Academic level	FHEQ Level 7
Grading Schema	50

#### Teaching Responsibility

LJMU Schools involved in Delivery	
Civil Engineering and Built Environment	

## **Learning Methods**

Learning Method Type	Hours
Online	11

### Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	СТҮ	January	12 Weeks

### **Aims and Outcomes**

Aims	To identify and critically appraise how environmental sustainability and lean principles can be incorporated into a more modern and innovative construction organisation and industry.

#### After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Identify and critically assess the effects of construction on the natural environment.
MLO2	2	Critically evaluate the application of innovative and practical solutions within the construction industry context.
MLO3	3	Define and use various environmental performance measurement tools.
MLO4	4	Examine the developments and characteristics of lean-based approaches to managing construction projects.
MLO5	5	Critically appraise the benefits and barriers to implementing lean in construction project environments.
MLO6	6	Apply a lean based approach to a specific project management situation.

## **Module Content**

Outline Syllabus	Sustainable development - historical contextClimate change and energy useConstruction waste and industrial ecologyPerformance measurement/business process innovationLean principles - historical contextLean based approaches, barriers and benefitsLean and Project managementLean and green - synthesis
Module Overview	
Additional Information	The module provides a wide ranging study of sustainability and lean principles affecting a modern construction sector.

## Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Case Study Based Portfolio	100	0	MLO1, MLO2, MLO3, MLO4, MLO5, MLO6

## **Module Contacts**

#### Module Leader

Contact Name	Applies to all offerings	Offerings
Damian Fearon	Yes	N/A

#### Partner Module Team