

## Liverpool John Moores University

Title: Applying Lean Principles to Construction Projects  
Status: Definitive  
Code: **7209BEPG** (120481)  
Version Start Date: 01-08-2014

Owning School/Faculty: Built Environment  
Teaching School/Faculty: Built Environment

Team	Leader
David Bryde	Y

**Academic Level:** FHEQ7  
**Credit Value:** 10.00  
**Total Delivered Hours:** 24.00  
**Total Learning Hours:** 100  
**Private Study:** 76

### Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Workshop	24.000

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	Project		100.0	

### Aims

*To investigate the rationale for applying Lean principles to construction projects and develop skills and knowledge in order to use Lean-based methods on projects.*

### Learning Outcomes

After completing the module the student should be able to:

- 1 Evaluate the historical development of the Lean construction movement.

- 2 Examine the characteristics of Lean-based approaches to managing construction projects.
- 3 Critically appraise the benefits and barriers to implementing Lean in construction project environments.
- 4 Apply a Lean-based approach to a specific project management situation.

### Learning Outcomes of Assessments

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

Portfolio Project Based      1      2      3      4

### Outline Syllabus

*The historic evolution of the Lean philosophy*  
*The Lean construction movement*  
*The elements of Lean construction*  
*Benefits and barriers*  
*The Last Planner System®*  
*Case studies*

### Learning Activities

The module is delivered in taught mode by workshops, seminars, using case studies, interactive group work and directed self-study.

### References

<b>Course Material</b>	Book
<b>Author</b>	Forbes, L.H. and Ahmed, S.M.
<b>Publishing Year</b>	2010
<b>Title</b>	Modern Construction.
<b>Subtitle</b>	Lean Project Delivery and Integrated Practices
<b>Edition</b>	
<b>Publisher</b>	CRC Press
<b>ISBN</b>	9781420063127

<b>Course Material</b>	Website
<b>Author</b>	Ballard, H.G.
<b>Publishing Year</b>	2000
<b>Title</b>	The Last Planner System of Production Control.
<b>Subtitle</b>	Thesis
<b>Edition</b>	
<b>Publisher</b>	The University of Birmingham Available at <a href="http://leanconstruction.org.uk/media/docs/ballard2000-dissertation.pdf">http://leanconstruction.org.uk/media/docs/ballard2000-dissertation.pdf</a>
<b>ISBN</b>	

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## **Notes**

The module provides students with an appreciation of the philosophy, principles and practices of Lean construction.