XCELERATE TRAINING INSTITUTE

your learning & development partner

CONSTRUCTION MANAGEMENT & CIVIL ENGINEERING

# Lean Construction

| DURATION | LANGUAGE | FORMAT |
|---|---|---|
| **5 days** | **English** | **Classroom / Online** |

## Upcoming dates

| Dates | Venue | Format | Fee |
|---|---|---|---|
| 22 – 26 ?????? 2027 | Live online | Online (live) | **€1?200** |
| 2 – 6 ????? 2027 | Live online | Online (live) | **€1?200** |
| 6 – 10 ?????? 2027 | Bahrain | Classroom | **€4?800** |

### Register or ask a question

Online: x8ti.com/course/lean-construction/

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# Lean Construction

## Introduction

Introduction

Lean construction is developed from the unending pursuit of improvement in construction and has a goal of ensuring the cost of construction is as minimum as possible. Everyone in the construction industry would like to do the job faster and at a reduced price. Right from the designers who want to finish up their job and get to the next one, to the project owners who want to get their project finished at a minimum and optimized cost. Lean construction training offers an insightful perspective on how to maximize the value of any starting or ongoing construction project. This is done through detailed processes such as a good design, activation, construction, salvaging, recycling, operations, and maintenance.

Lean production has been successfully utilized in manufacturing with some substantial gains, which can be leveraged and used effectively in the construction industry. Lean production stands a chance of dramatically improving the construction process and industry at large. This is because lot of elements and techniques can be utilized and ported over to the construction process.

This Xcelerate Training Institute course will explore some of the world's best lean construction practices and standards, delivering them in the most memorable way to those who will participate. Xcelerate Training Institute Talent professional tutors will give insight into the key concepts and practically apply them to your construction project to get dramatic results in cost-saving and speed while maintaining quality.

Learning Objectives

The main objectives of this course are to enable the professionals who undertake it to:

- Thoroughly understand lean construction best practices
- Oversee multiple functions in construction projects ensuring that all the activities and functions run smoothly while optimizing and minimizing the cost
- Apply advanced techniques and tools in construction to enhance the quality and speed of work in any project
- Train other important professionals in the project on the best ways to minimize waste and use lean concepts
- Contribute to organizational profit, development, and credibility by utilizing the best methods and concepts in construction
- Review existing practices to ensure they reduce both time and resources on any project
- Predict project expenditure accurately and ensure that the project does not waste resources

Training Methodology

This course will be handled by industry best professionals who have a deep and clear understanding of how lean construction concepts can be applied practically to any project. The course will give the participants the technical skills and knowledge necessary to apply lean productivity techniques to

construction projects. Case studies, practical exercises, and detailed attention to everyone undertaking this course shall be guaranteed with the goal to ensure maximum understanding of concepts.

Active participation by engagement is encouraged in this course, and experiential learning, scenario analysis, and review of learning materials are highly considered an important part of this course. Like all our acclaimed courses, this program also follows the ‘Do-Review-Learn-Apply’ model.

Benefits For Your Organization

Organizations that will have their professionals undergo this course will benefit in the following ways:

- Improved organizational credibility and development because of well-optimized and managed resources
- Detailed analysis, better handling of projects, and satisfied clients due to better ways and tools of handling any project
- Appropriate allocation of resources to cut costs
- Better reuse of materials to avoid wastage and unnecessary costs
- Regular training of other employees on the best lean practices and internationally recognized standards
- Enhanced quality of operations because of advanced application of tools and technology that will be learnt through this course
- Integrated approach in construction projects
- Availability of a skilled and better-equipped workforce
- Better and improved project handling procedures

Benefits For You

All the participants who will undergo this course stand to benefit in the following ways:

- Detailed understanding and deep knowledge of lean productivity concepts in construction
- Increased and better perspective and awareness to select and evaluate the most effective methods and techniques for running a construction project
- Better and effective decision-making process
- Increased capabilities to deliver a project on time and use the minimum cost while maintaining quality
- Ability and skills to initiate learner operations
- Increase the opportunities for career development because of enhanced and demonstrable skills
- Increased awareness and capabilities to reduce cost through effective application of lean productivity techniques

Target Audience

- Construction managers who wish and need to understand how to tap into the crucial and highly effective lean construction concepts and techniques
- Operations managers who continuously implement projects to enhance production
- Project managers who need to cut on resource waste, improve productivity, and use modern methods in construction projects

- Any professionals who may want to pursue a successful career in construction
- Graduates who wish to put themselves ahead of others professionally and have some tangible skills to showcase to potential employers and clients
- Administrators who want to effectively dispense their mandate while giving highly valued advice to those in the field

Course Outline

Introduction to Lean Construction Techniques

- The 5S system
- Sorting and doing away with the clutter and what is not needed
- Shining and ensuring a clean working area
- Sustenance to ensure standards adherence
- Standardize to develop standards for the above methods
- Straighten to organize all the remaining parts
- The 6 losses
- Small stops
- Production rejects
- Bottle-neck speed
- Breakdowns
- Setup and adjustments
- Start-up rejects

Machine Monitoring and Effective Use

- OEE (overall equipment effectiveness)
- Downtime
- Equipment slow cycle occurrences
- Equipment rejects
- Monitoring automation
- Real-time visualizations and notifications
- Quality issues
- Handling poor performance

Total Productive Maintenance

- How to reduce cycle times
- How does TPM help in construction projects?
- Value stream mapping
- What is the importance of value stream mapping?
- How to apply value stream mapping in construction
- Visualization
- Visual indicators
- Visual controls

- Visual display
- What is total productive maintenance?

Work Flow

- Takt time
- Ensuring construction schedules are met
- Planned production time
- Client specifications
- Target pieces
- Actual pieces
- SMART goals
- Setting Specific goals
- Ensuring your goals are Measurable
- Have Attainable goals
- Ensure that your goals are relevant to your plan
- Be Time-specific in setting your goals

Kaizen (Continuous Improvement)

- Incremental improvements
- Regular construction achievement
- Resources management
- Continuous flow
- The Real Place (Gemba)
- Philosophy background
- Understanding of construction sites and projects

Scheduling

- Level scheduling (Heijunka)
- Breaking work into batches
- Sequencing
- Kanban
- The pull system
- The flow of materials
- Waste handling
- Jidoka
- Automation
- How to reduce labor costs using jidoka?
- Quality issues

Analysis

- Just-in-time
- Making it all work
- Using different lean tools together

- Parts construction
- Policy Deployment (Honshin Kanri)
- Construction site plan
- Organization strategy
- Bottleneck analysis
- Getting the process limits
- Identifying the weakest links
- Andon
- Making it work for a construction project
- Production status
- Importance of communication
- Key Performance Indicators (KPIs)
- Best construction KPIs
- Designing the metrics
- Strongly promoted KPIs
- Muda (waste)
- Managing waste
- Plan, Do, Check, Act
- Establishing the plan
- Implementing the plan
- Verifying the expected results
- Reviewing and assessment
- Poka-Yoke (error proofing)

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# Registration Form

## Lean Construction

Preferred dates: ..... Venue or online: .....

Duration: 5 days Language: .....

Please complete and email this form to us, or register online. We confirm your place and send the invoice within one working day.

### Delegate information

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Official email: ..... Personal email: .....

### Company information

Company name: .....

Address: .....

City / country: ..... VAT / tax number: .....

### Person responsible for training & development

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Email: .....

### Payment

☐ Please invoice me ☐ Please invoice my company

Signature: ..... Date: .....

**Call**
+491631686678

**Email this form**
info@x8ti.com

**Register online**
Open the course page