Lean Construction Education Program Unit 7: Problem-Solving Principles And Tools- Instructor's Guide
WELCOME TO UNIT 7: PROBLEM-SOLVING PRINCIPLES AND TOOLS

Lean Construction is driven to minimize costs and maximize value on each project completed, challenging all stakeholders to develop and apply better ways to manage the overall construction process. Everyone related to the construction process has incentives to get the project done faster and at a lower cost from the project owners who want to see tangible results for their investment to designers and contractors who want to do their job well and move on to the next project. Throughout the construction process planning, design, construction, activation, operations, maintenance, salvaging and recycling the holistic pursuit of continuous improvement drives more efficient, effective and economic projects. On a corporate level, lean is most effective when embraced by all areas of the company. To do so, senior management must understand the need for and advantages of lean implementation. However, lean is also an individual journey. All project team members must work together on a daily basis, incorporating lean principles into their most basic work, to see the true benefits of lean. This course is just one part of the foundation that is available to help participants reach these goals. Up to this point, the courses within the Lean Construction Education Program (LCEP) have been focused on variation inherent to workflow, the value of pull production and effective structuring, planning of those activities on the project site, elimination and maximizing value in the supply chain and applying lean principles to design and pre-construction. With Unit 7: Problem-solving Principles and Tools, we will look at the construction problem-solving principles and tools, the role of teamwork in problem solving, clearly defining problems, a structured approach to problem solving, tools useful for problem solving and use of the A3 for solving construction problems. The course is divided into three sessions: Session 1 introduces the difference between traditional and lean problem solving, creation of a team approach, and the use of observation walks to discover the facts affecting a problem. Session 2 introduces the importance of carefully defining problems, the 5 Whys and the Plan-Do-Check-Act cycle. Session 3 presents several tools for use in solving problems and an extended activity to complete an A3 for problems participants bring from their workplace to class.
Principles for Problem Solving and Good Decision Making

Lean in 15: 15-Minute Meals and Workouts to Keep You Lean and Healthy