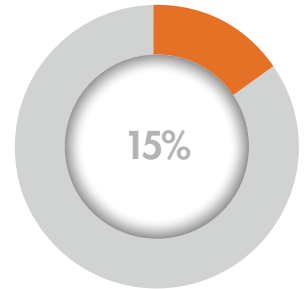


# Lean Specialized Credential Content Outline

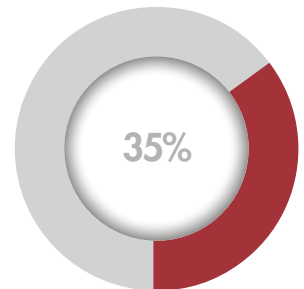
## LEAN FUNDAMENTALS AND PRINCIPLES

- Understand the differences between value and non-value added activities
- Identify the eight sources of waste
- Explain the importance of flow in a value stream
- Describe the use of push and pull production
- Understand the benefits of lean and how it is used to seek perfection
- Describe the importance of lean culture, including leadership and metrics
- Understand how Voice of the Customer defines value and influences key performance indicators in lean



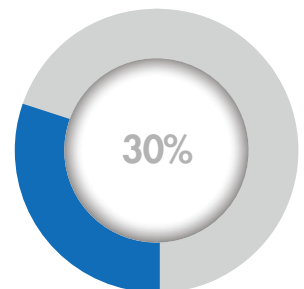
## CONTINUOUS IMPROVEMENT AND PROBLEM SOLVING

- Apply the PDCA method to problem solve and improve processes
- Understand DMAIC and how it is used to optimize business processes and designs
- Describe how kaizen (improvement) can be used for continuous improvement
- Understand when and how to use a kaizen event
- Use and explain the A3 method
- Understand the importance of gemba (the actual place) and how it is used to improve a process or solve a problem



## SYSTEM AND PROCESS EFFICIENCY METHODOLOGIES AND TOOLS

- Describe how standard work reduces variation and increases efficiency
- Use value stream mapping to document current and future state process maps
- Calculate and analyze the takt time to set the rate of a system
- Explain the role of kanban (signboard) in process efficiency
- Apply just-in-time to reduce waste in a system
- Apply total productive maintenance to optimize a production process
- Implement overall equipment effectiveness to ensure overall system efficiency and identify areas for improvement
- Utilize change-over reduction for continuous flow
- Describe the benefits of heijunka (production leveling)
- Use Theory of Constraints to identify and address bottlenecks



## WORKSPACE OPTIMIZATION METHODOLOGIES AND TOOLS

- Apply the 5S discipline to improve a workspace
- Understand the importance and application of visual management
- Describe the use of andon (status-display station) in a workspace
- Describe the use of jidoka (autonomation)
- Understand how work cell design can improve process flow
- Understand and use poka-yoke (error-proofing)

