

Lean Professional Development



journey

Continuous Improvement
now comes with a

Standard !

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Lean Certification: Partnership

- **Purpose:** Provide a universally recognized professional credential that:
 - Differentiates and progresses with Lean knowledge and demonstrated competency
 - Provides standard methodology for measuring Lean knowledge and accomplishment (*consultant independent*)
 - Focuses on the development of Lean professionals
 - Facilitates alignment of Lean practices



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Lean Certification: Candidates

- Lean is a significant component of their career
- Desire to advance their scope of Lean responsibilities and capabilities
- Represent a variety of industries and functions within an organization



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Lean Certification: Organizations

- Lean is a significant component of their strategy
- Desire to hire people using standard evaluation methods
- Evaluate knowledge and competencies in a variety of environments



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Companies

- 3M
- BAE Systems
- Ballard Power Systems
- Boeing
- Boston Scientific
- Corning
- Cummins Inc
- Del Monte
- Eli Lilly
- Energizer
- Esterline Technologies
- Ford Motor Company
- General Electric
- Halliburton
- Husky Injection Molding
- Hytek Finishes
- IBM
- Intel
- John Deere
- Johnson & Johnson
- Korry Electronics
- Kvichak Marine Ind
- Marvin Windows&Doors
- Medtronic
- Raytheon
- Rolls Royce Corp
- The Boeing Company
- Timken
- TRW Automotive
- United Airlines
- US Air Force

To learn how **Panasonic** is using Lean certification, go to www.sme.org/leancert and then click on Corporate Groups.

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Lean Certification Program

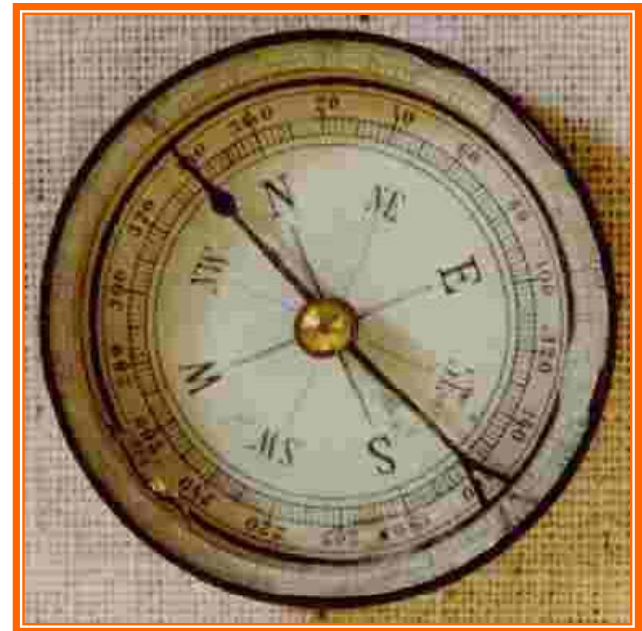


Each level must be completed before progressing to next level

**KNOWLEDGE + EXPERIENCE =
Lean STRENGTH**

Lean Certification Components

- Exam
- Experience portfolio
- Mentoring & Coaching
- Interview



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Exam

- Testing Lean principles & practices across the cognitive types of:
 - **Knowledge:** recall/comprehension
 - **Application:** applied knowledge (e.g. problem solving)
 - **Judgment:** using knowledge & application to choose the BEST of 4 possible answers
- Exams are mutually exclusive for Bronze, Silver, and Gold
- Questions appropriate to the level of certification sought

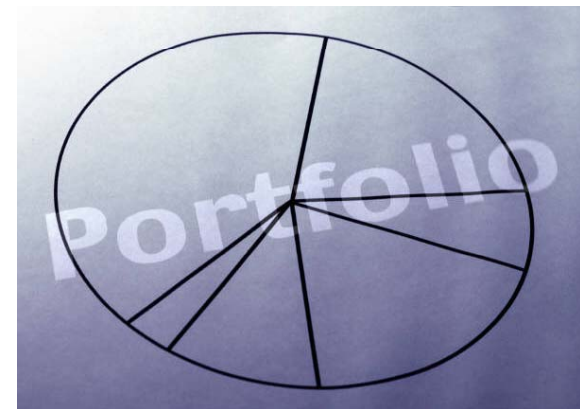


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Experience Portfolio

- Documentation of Lean education
- Documentation of Lean projects and results
- Progressive: portfolios at each level of certification increase in scope and impact
- Peer reviewed.



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Bronze Level - Tactical

DESCRIPTION	AFFECT	EXPERIENCE
<p>Tactical Lean is the deployment and application of Lean principles, concepts and methods locally, <u>within a work group or value stream</u>. This may be a workshop or project focused on implementation of specific Lean concepts or techniques.</p>	<p>Local: Processes within a work group or value stream. Candidates are operating <u>under the guidance of others</u>. Much focus is on <u>usage of Lean tools</u>.</p>	<p><u>80 hours of training</u> <u>Solid understanding of Lean principles and tools</u> Ability for tactical <u>implementation</u> that drives improvements and shows results</p>

Silver Level - Integrative

DESCRIPTION	AFFECT	EXPERIENCE
<p>Integrative Lean is the integration of Lean activities, coupled with organizational restructuring, necessary for <u>transformation and sustainable Lean operation of a complete value stream</u>.</p>	<p>Value Stream: Value Stream is defined as any process that has a defined customer and supplier (including internal), material flow and information flow. The process should include multiple operations or tasks that require the use of several people, machines or equipment.</p>	<p>Experience as a <u>Lean project leader</u> on value stream transformations.</p> <p><u>160 hours of training</u> (80 Bronze + 80 new)</p> <p>Moved into <u>leadership</u> roles</p> <p>Experience <u>mentoring and/or coaching</u> individuals or teams.</p>

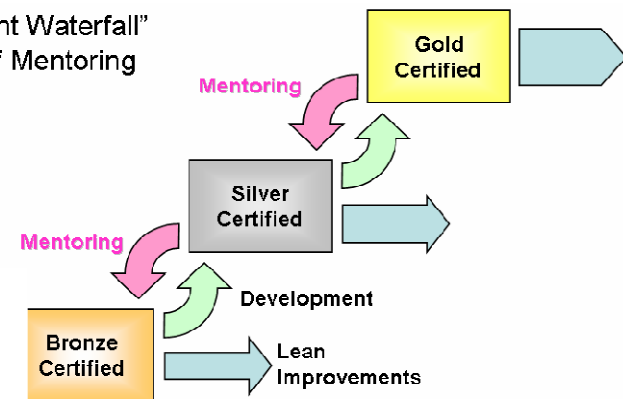
Gold Level – Strategic

DESCRIPTION	AFFECT	EXPERIENCE
<p>Strategic Lean is a Lean <u>transformation of a business or organization</u>. This requires at least two business transformation projects that include two or more of the classic value streams of:</p> <ul style="list-style-type: none"> • New product development • Order through delivery • Supply chain • Administrative functions 	<p>Enterprise: A business or organization systematically working toward a common goal. This may be an entire company, a plant, a business unit, a satellite office, and may include external suppliers and customers.</p>	<p>Understanding of Lean transformation across an entire enterprise.</p> <p><u>200 hours of training</u> (160 Silver + 40 new)</p> <p><u>Influence and authority</u> over assets, processes and people.</p> <p><u>Lead</u> ongoing business transformations to a Lean model.</p>

Mentoring and Coaching – Silver & Gold Levels Only

- The role of the senior Lean practitioner is to apply Lean knowledge, share that knowledge with others, and develop the community of professional Lean practitioners.
- Mentors provide technical advice regarding Lean, guide others through their certification projects and the certification process, and accelerate individual growth.

“The Development Waterfall”
And The Role of Mentoring



Interview: Gold Only



- Evaluation of Lean Practice
- Structured interview conducted by peer group
- Includes scenario outside candidates normal operating environment to assess application of Lean thinking



Starting the Bronze Certification Journey



Candidates must demonstrate skills and knowledge of Lean Basics:

- Cause and Corrective Actions
- Cellular Layout/Concepts
- Flow
- Jidoka
- Mistake Proofing
- Problem solving
- Pull/Kanban
- SMED (Single Minute Exchange of Dies)
- Standard Work
- Tactical results measurement (initial goal, results to goals, discussion on gaps)
- Takt time/customer demand
- Total Productive/Preventative/Predictive Maintenance (TPM)
- Value
- 5S
- Waste (Value Added/Non-Value Added)
- Visual Management
- Gap analysis
- Team facilitation
- Team dynamics
- Planning methods/control methods (e.g. evaluate project risks, communication, logistics, describe how you use A3, etc.)
- Assessing level and trend of improvement (candidate is capable of evaluating and communicating progress to plan/goal, progress to previous checks, maintaining stability)

TACTICAL

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Lean Bronze Exam

- Fundamentals of the principles & practices of Lean
- Tactical (tools-based) – knowledge, application and judgment
- For advanced topics (e.g. hoshin planning), basic knowledge is expected
- 75% cut score...

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Education, Training & Development

80 hours that includes 3 or more professional development activities:

- Classroom training
- Hands-on programs
- Web-based seminars
- Conference programs
- Training you've delivered
- Videos
- Books
- Structured plant tours
-etc.....



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Types of Projects

(examples only)

- Cellular Layout
- Quality at the Source
- Mistake Proofing (Poke Yoke)
- Load-leveling (Heijunka)
- Line Balancing
- Total Productive/Preventative/Predictive Maintenance (TPM)
- 5S
- Visual Management
- Pull/Kanban System
- SMED (Single Minute Exchange of Dies)/Quick Changeover
- Standard Work

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Portfolio Review

- Before you submit...have someone else review it!
- Submitted portfolio is peer reviewed
- Each project must pass and the reflection must pass for the portfolio to pass
- Project pass point: 12/15 points
- Reflection pass point: 20/25 points

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What Reviewers Look For

- Progression/growth through portfolio
- Diversity of projects
- Use “I” extensively when writing your portfolio projects
- Understanding of principles and appropriate application (scored for each question)
- Ability to reflect

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Q & A

For more information go to

www.sme.org/leancert

www.ame.org

www.shingoprize.org

To learn more about Bill Sandras and his services

go to www.pciconsulting.org ;

for a copy of this presentation click on [Public Events](#)

and then [Lean Certification Overview Presentation](#)

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