

# The LEAN Process – a DIY Process

Course No. P-8002

An Online Continuing Education Course for Engineers

**Credit: 8 PDH**

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# THE LEAN PROCESS: *A DIY APPROACH*



By  
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## OVERVIEW

Much has been written about the LEAN **manufacturing (lean enterprise or lean production)** practice that *“considers the expenditure of resources for any goal other than the creation of value for the end customer to be wasteful, and thus a target for elimination.”*<sup>1</sup>

First, let me assure you, THIS IS NOT A REHASH OF THAT! There are many volumes available to present that topic from every possible angle telling readers the WHAT and WHY of LEAN practices.

Unfortunately, there are not as many telling you HOW.

This course is an attempt to fill that gap in a non-technical, basic examination of several of the concepts within LEAN from a practical application standpoint asking the question, **“How do I translate that flowery rhetoric into real-time use in my situation?”**

We answer that question in analyzing such favorite LEAN-Speak terms as:

- **Make processes more efficient –**  
*“How do we do that? How can we measure the efficiency of a process? Unless we can measure that efficiency, how can we tell if we’re improving anything?” This course will show you HOW.*
- **Increasing productivity –**  
*“Can we tell the difference between “busy” and “productive”? If we aren’t sure of the difference, are we being as efficient as we can be?” This course will show you HOW.*
- **Eliminate non-value-added work such as waiting for parts, sorting, reviewing, etc. –**  
*Is there a simple way to understand supply-chain management? This course will show you HOW.*
- **Eliminate unbalanced production workloads –**  
*How do we determine whether a production line is balanced? What can we do about it? This course will show you HOW.*

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<sup>1</sup> [http://en.wikipedia.org/wiki/Lean\\_manufacturing](http://en.wikipedia.org/wiki/Lean_manufacturing)

- **Reduce your unlevelled scheduling –**

*How can we forecast more accurately so we can reduce the highs and lows in production? This course will show you HOW.*

This course will provide a practical understanding with easy-to-apply examples of these broad subjects:

- **MEASURING INDIVIDUAL PERFORMANCE AND PRODUCTIVITY**

*How do we know if we're getting the most out of our workforce?*

- **CAPACITY PLANNING**

*How much can we produce?*

- **STRATEGIC MAINTENANCE MANAGEMENT**

*How do we keep the means of production available?*

- **SUPPLY CHAIN MANAGEMENT**

*What is involved in keeping raw materials flowing in to maximize production?*

- **DATA ANALYSIS AND FORECASTING**

*What are the most appropriate methods of forecasting based on historic data analysis?*

I hope it is a useful resource for you long after you have passed the associated quiz and earned your professional development credits.

If you have suggestions on how we can make it better, please contact me through this website.



Dick Grimes  
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## LEARNING OUTCOMES

Participants in this self-study course will learn to:

1. Compare and contrast productivity with just being busy.
2. Clarify their expectations with elements of quality, quantity, and time.
3. Explain why much workplace stress stems from poorly defined expectations.
4. Reduce much of their workplace stress by asking leaders for clarification of expectations.
5. Explain what SMART goals are and why they are important
6. Write their own measurable performance goals and help others with theirs.
7. Identify the critical elements necessary for productivity.
8. Define and construct “feedback loops” for their work setting.
9. Contrast the advantage of sharing information with employees instead of hoarding it to make them seem indispensable to the department.
10. Analyze floor plans for optimal work flow
11. Analyze work flows to determine their current efficiency
12. Explain and apply the principles of ‘line balancing’
13. Determine work process flow adequacy
14. Revise workflows to improve efficiency
15. Explain the concept of ‘flow time’
16. Create optimal production cycle timing
17. Apply three capacity planning strategies effectively.
18. Apply the skills learned to practice exercises within the course
19. Learn how to integrate your maintenance program into the business plans of the company
20. Be able to identify the four broad generational stages of the evolution of maintenance
21. Know how to develop the internal talent necessary to maintain the equipment and machinery of your business
22. Be able to identify several major changes in the external business environment that present an increasing challenge to maintenance professionals today
23. Be able to identify four reasons why people are one of the major changes in the business environment

24. Be able to identify two reasons why processes are one of the major changes in the business environment
25. Be able to identify three reasons why plants are one of the major changes in the business environment
26. Be able to list four reasons for the “WHAT” of strategic maintenance management (SMM)
27. Be able to list six reasons for the “WHY” of strategic maintenance management.
28. Be able to list four reasons for the “HOW” of strategic maintenance management
29. Be able to ask several relevant questions about talent *development* issues
30. Be able to ask several relevant questions about talent *deployment* issues
31. Learn to analyze the cost/risk relationship graph beyond the generic responses
32. Identify at least 12 miscellaneous planning issues to consider regarding SMM
33. Construct a three step model for building a strategic maintenance plan
34. Describe the general flow of a supply chain and list the typical components within it.
35. Explain how the supply chains of manufacturers and service providers differ and are alike
36. Define correctly and use appropriately the various terms associated with supply chain management
37. Learn to use key performance indicators
38. Identify typical uncertainties in a supply chain and suggest ways to protect against them

## INTENDED AUDIENCE

We assume the audience for this course to be a project manager or someone with some experience in implementing lean. We further assume that the audience has some knowledge or broad experience in lean.

This individual must be sufficiently experienced in the role of the executive.

There will be some chance that the role

While we do not claim that all of them have been used effectively. The extent of support from upper management



oftly pronouncements

neers, but there is a

that all of them

ort to implement

implementer and the support received

*To view the remainder of the course material and to take the quiz for PDH credit, you must purchase the course.*

*Close this window and click "Add to cart" on the product page.*