

## Systematic Layout Planning for Lean Facilities

### Planning and Leading for Efficiency

System Layout Planning (SLP) is recognized throughout the world as the most organized way to lay out a facility for efficient operation. Leading companies have made it a standard practice in their Lean and Six Sigma programs. Translated into 10 languages, this system is recognized throughout the world and is an effective corporate standard for multi-national firms.

This on-demand online course will prepare you to lead layout projects using SLP and achieve remarkable results in record time. You can register and start at any time.

### Learn to:

- Employ SLP to eliminate waste resulting from poor layout
- Prepare a plan to improve material flow and reduce the cost of material handling
- Develop a more productive facility
- Organize layout projects and teams

### Who Should Attend?

- Plant and manufacturing managers
- Manufacturing and industrial engineers
- Lean and Six Sigma program offices
- Black belts and master black belts leading process improvement projects

### 20 Things You Will Learn:

1. The three fundamentals of every layout project
2. How to lay out a work area, department, or work cell in six simple steps
3. How to organize large projects and get great layouts in a hurry
4. What data you need for effective layout planning and where to get it
5. What types of diagrams and flow charts are best to use
6. How to visualize material handling effort on your layout
7. How to measure the material handling waste of one layout versus another
8. Twelve reasons why activities may need closeness between them (and flow is only one)
9. How to record hundreds of layout relationships and their reasons on a one-page form
10. How to identify the critical relationships that must be honored in the layout – and the many others that don't matter at all
11. How to assure and confirm that the most important relationships have been honored in your plan
12. How to estimate space requirements, short- and long-term
13. Why and when U-flow layouts may not be the best answer
14. Ten important considerations and factors to use when comparing layout proposals – and cost is only one
15. How to get agreement and buy-in on which layout is best
16. Twenty issues and conditions to watch out for in a detailed cell layout
17. Twenty considerations for effective work place design

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18. The ten questions top management wants answered before approving your plan
19. What software and spreadsheet tools are available for layout planning
20. How to plan and lead a layout planning workshop or project in your facility

### Instructor

Lee Hales, Richard Muther & Associates

Lee Hales, President, Richard Muther & Associates, is an internationally recognized planner of manufacturing and distribution facilities. Formerly operations manager for a distributor of industrial supplies and service parts, Mr. Hales has completed consulting assignments for a wide range of industries in more than 20 countries. His clients include Crown Equipment, The Container Store, Delta Air Lines, Lands' End, Nokia, Motorola, General Motors, Nutro Products, Sony, and many others. The author of two books on industrial planning, Mr. Hales is a graduate of the University of Kansas and the Massachusetts Institute of Technology.

### Course Outline

1. Fundamentals of Systematic Layout Planning (SLP)
2. Learn-by-doing Exercises – Relationship Charting and Diagraming; Measuring and Visualizing Material Flow.
3. Overview of the full SLP Method: Phases; Fundamentals; Procedures and Conventions; Key documents and Outputs
4. Key Input Data for Layout Planning: P Q R S T
5. Types of Layouts and Definition of Activity Areas
6. Process Charting for Layout Planning
7. Four Ways to Analyze Flow of Materials
8. Flow Analysis for Diverse Materials
9. Mag Count for Flow Analysis of Diverse Materials
10. Data Sources for Material Flow Analysis
11. Charting Relationships Other-Than-Flow
12. Combining Flow & Other Relationships
13. How to Diagram Activity Relationships
14. How to Determine the Space Required
15. Space Relationship Diagrams
16. How to Develop Layout Plans
17. Guided Application: Case Problem in Block Layout
18. How to Compare Material Handling Effort
19. How to Evaluate and Select the Best Layout Plan
20. Department, Small Area and Workplace Layouts Using SLP
21. Site Location and Selection
22. Layout and Equipment Installation
23. Project Planning & Management Using SLP

# Systematic Layout Planning for Lean Facilities

## Course Delivery

This online class will be delivered using the Blackboard Learning Management System. Each lesson has a number of 10-15 minute video recordings and PDFs for notetaking. Most lessons are followed by a short quiz. There are also layout exercises through which the instructor will guide you. Each exercise is followed by copies of the instructor's answers.

The instructor can be directly contacted via email with any questions about class content. He will respond within 2 business days.

You have four months to complete the course.

## Certificate Requirements

The certificate is awarded after completion of all quizzes. Participants must attain a minimum of 75 percent for the entire course. The full certificate course is equal to approximately 24 classroom hours of instruction and assessment. The certificate will state that the recipient has earned 2.4 Continuing Education Units (CEUs) or 24 Professional Development Hours (PDHs). However, the course does not carry any college credits and cannot be used as part of a degree seeking program.

## Course Materials

Extensive documentation and reference materials will be mailed to students upon registration at no additional cost. As part of your registration, you will receive the following:

- The 400+ page text: Systematic Layout Planning (SLP), 4th edition, a complete handbook for planning and managing layout projects. Hardcopy and PDF.
- The Simplified Systematic Layout Planning booklet for laying out small areas. With more than 200,000 copies distributed, this is the most popular text ever published on the subject of layout planning.
- A PDF file of case exercises and discussion problems, including instructor's answers to each.
- Optional electronic files for two layout exercises.
- Links to more than 20 useful working forms in Microsoft Excel. These address every aspect of layout planning.

Additional course materials will be available for download from the University of Kansas learning management system.

## Registration Fees

You can train your team and save. For larger groups, contact [eeden@ku.edu](mailto:eeden@ku.edu) for pricing.

- Registration for one or two attendees      \$495.00 each
- Registration for three or four attendees      \$445.00 each (10% discount)
- Registration for five or more attendees      \$420.00 each (15% discount)

## **Systematic Layout Planning for Lean Facilities**

### **Refund and Cancellation Policy**

No refunds will be granted for this class once the student has accessed the Blackboard class site. A full refund of registration fees, less a \$30 administrative fee, will be approved if requested in writing at [kupce@ku.edu](mailto:kupce@ku.edu) prior to accessing the course. Requests must be made within 60 days of payment.