

5-Day Systematic Layout Planning (SLP)

Description

This is the most comprehensive work course ever developed on the subject of layout planning. Based on Systematic Layout Planning (SLP), this course presents a practical, proven method universally applicable to any type of layout project. Recognized throughout the world as the most organized approach to layout planning, SLP has been successfully used on thousands of projects. A carry-through case problem and teamwork assure your mastery of the material.

Essential learning for those who are adding new equipment or capacity, rearranging for better material flow and throughput, expanding or consolidating facilities, implementing work cells and lean manufacturing...

Note: While manufacturing examples are used, the procedures you will learn are equally effective for warehouses, offices, and labs.

Objectives

- To reduce material handling costs.
- To achieve more productive facilities.
- To better organize layout projects and teams.

Who Will Benefit

- Plant and Manufacturing Managers
- Manufacturing and process engineers
- Industrial Engineers and layout planners
- Facilities planners, plant engineers, and architects
- Production supervisors and team leaders
- Cell planning and Lean Manufacturing teams

Timing

Duration: 5 days
(1-, 2- and 3-day versions also available)
Start: 8:15
AM Break: 10:15
Lunch: 12:00 – 1:00
PM Breaks: 2:15 & 3:45
Adjourn Days 1 - 4: 6:00
Adjourn Day 5: 3:00

Course Outline

Day One

A. WELCOME & ORIENTATION

B. APPROACHES TO LAYOUT PLANNING

- Economic considerations of planning.
- Typical approaches to layout planning.
- Fundamentals of layout planning.

C. SIMPLIFIED SLP

- Six step procedure for small areas and projects.
- Case examples.

D. GUIDED APPLICATION IN SIMPLIFIED SLP

- Case exercise and explanation.

E. SLP – AN ORGANIZED APPROACH TO LAYOUT PLANNING

- The four phases of every layout project.
- Planning procedures and conventions.
- Key input data and where to get it.
- Product-Quantity analysis and what it tells us.
- Classical types of layout.

F. PRODUCT MIX AND PROCESS ANALYSIS

- Introduction to carry-through case problem. (Continues through Thursday morning).
- Case exercise in Product-Quantity analysis.
- Case exercise in process charting & analysis.

Day Two

A. QUESTIONS AND REVIEW

B. FLOW OF MATERIALS ANALYSIS

- Case exercise – how to measure flow.
- Correcting for transportability.
- The Mag Count method.
- Grouping to simplify the process chart.
- Multi-product process charts.
- From-To charts.

C. QUANTIFYING FLOW OF MATERIALS

- Case exercise in From-To charting.
- Case exercise — ranking and rating material flows.

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Course Outline continued

Day Two continued

D. ESTABLISHING AND CHARTING RELATIONSHIPS

- The rated and reason-supported relationship chart.
- Vowel-code rating of other-than-flow relationships.
- Operating and architectural relationships.
- Procedure for activity relationship analysis.
- Case exercise in charting service relationships.

E. COMBINING FLOW AND SERVICE RELATIONSHIPS

- Relative importance of flow and other-than-flow relationships.
- Procedure for combining flow and service ratings.
- Using the relationship chart to summarize combined ratings.

F. CASE EXERCISE: DIAGRAMMING RELATIONSHIPS

- Theory of relationship diagramming.
- Procedure for making an activity relationship diagram.
- Case exercise in diagramming.

Day Three

A. QUESTIONS AND REVIEW

B. DETERMINING SPACE REQUIREMENTS

- The calculation method.
- Machinery and equipment layout data.
- The converting method.
- The rough layout method.
- Space standards.
- Ratio-trend and projection.
- Balancing space required and space available.
- Summarizing space required – amount, kind, and shape.
- Rating physical features required.

C. DIAGRAMMING SPACE RELATIONSHIPS

- How to draw a space relationship diagram.
- Case exercise in diagramming.
- Computer tools for layout planning.

D. ADJUSTING THE IDEAL TO THE PRACTICAL

- Practical limitations and modifying considerations.
- The influence of material handling methods.
- Introduction to Systematic Handling Analysis (SHA) and its relationship to SLP.
- The anatomy of an industrial plant.

E. CASE PROBLEM – BLOCK LAYOUT PLANNING

- Work in teams to develop an overall plant layout for the carry-through case problem.

F. CASE PROBLEM CONTINUES

Day Four

A. QUESTIONS AND REVIEW

- Presentation and review of team layouts.

B. EVALUATING ALTERNATIVE LAYOUTS

- Methods of cost comparison and justification.
- Intangible and hidden factors.
- The weighted factor method of evaluation.

C. MULTI-STORY AND MULTI-BUILDING PLANS

- Case exercise in multi-story planning.
- Cluster relationship diagrams.
- Stay or move? Split or combine?

D. INTRODUCTION TO DETAILED LAYOUT

- Review of block layout planning.
- Case example of SLP for detailed, equipment layout planning.

E. LAYOUT VISUALIZATION TECHNIQUES

- 2- and 3-dimensional visualizations.
- Physical and computer models.
- Simulation and animation tools.
- Mock-ups and walk-throughs.

F. CASE EXERCISE – DETAILED LAYOUT PLANNING

- Work in teams to develop a detailed department layout for the carry-through case problem.

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Course Outline continued

Day Five

A. QUESTIONS AND REVIEW

B. LOCATION (PHASE I) AND INSTALLATION (PHASE IV)

- Site location and selection.
- Land-to-building ratios.
- Planning, scheduling, and managing the layout's installation.

C. FACILITIES PLANNING

- The difference between layout and facilities planning.
- Levels of physical planning.
- Adaptation of SLP to site and facilities planning.
- Ground rules for plant expansion.
- Case exercise in long-range facilities planning.

D. MANAGEMENT OF LAYOUT PLANNING PROJECTS

- Planning, organizing, and controlling layout projects.
- Common difficulties and corrective actions.
- Procedure for starting any layout project with SLP.

E. CLOSING REMARKS

OPTIONAL SLP CERTIFICATION EXAM

Our 5-day SLP course prepares those attending to pass our SLP Certification Examination. This exam lasts between 2 and 3 hours. It can be given after the close of the course. The first half consists of true-false, fill-in-the-blanks, and multiple-choice questions about Systematic Layout Planning (SLP). The second half is spent working a small case problem to demonstrate mastery of SLP techniques. Exams are graded pass-fail.

We charge a modest fee for administering and grading each exam.

Examination is the first part of formal certification in SLP. The second part is Project Submission in which the practitioner submits the documentation of an actual project performed using SLP. This is also graded pass-fail.

Taking the examination only makes sense for those who intend to follow through with a Project Submission.

Those passing both parts receive a Certificate attesting to their proficiency in Systematic Layout Planning (SLP).