

Classes 8 a.m.–5 p.m. on Day 1 and Day 2, and 8 a.m.–3:30 p.m. on Day 3.

Day 1

A. Introduction

- Typical approaches to layout planning
- Three fundamentals of layout planning

B. Case Exercise in Layout Planning

- A six-step simplified planning procedure
- Relationship charts and diagrams
- Hands-on case exercise in warehouse layout

C. Systematic Layout Planning (SLP)

- The four phases of every layout project
- Systematic planning procedures
- Gathering and projecting key input data

D. Profiling and Inventory Analysis

- Activity and order profiles
- Inventory profiles
- Zoning and picking methods
- Matching your methods to inventory levels and flows
- Storage capacity calculations

E. Handling and Storing Equipment

- Unit load handling and storage
- Case and item picking and storage
- Simple and complex equipment

F. Case Exercises in Methods Selection

- Discussion problems on storage, handling, and order-picking

Day 2

A. Classical Layouts and Flow Patterns

- Commodity, activity, and other storage zones
- Basic flow patterns and their benefits
- Charting your operations
- Defining your activity areas

B. Flow of Materials Analysis

- Ways to measure and visualize material flow
- The quantified flow diagram
- Guided application in flow analysis
- Combining flow and other-than-flow relationships

C. Estimating Space Requirements

- Five ways to establish space requirements
- Short-range and longer-range space projections
- Case exercises in estimating space requirements
- Balancing space required to space available

D. Facilities Planning Issues

- Adjusting for physical features of the facility
- The impact of utilities, lighting, HVAC, and other specialized requirements
- Rack and aisle orientations

E. Case Exercise in Warehouse Layout and Materials Handling

- Team exercise to improve an existing layout
- Rearrange to reduce material handling effort
- Layout considerations other than material flow

Day 3

A. Evaluation of Alternative Plans

- Costs and intangibles
- How to select the best overall layout

B. Detailed Layouts

- Rack storage areas
- Shelving arrangements and slotting
- Dock areas
- Application of SLP to equipment layout

C. Case Problem in Distribution Center Planning

- Application of techniques from days 1 and 2 to a distribution center expansion
- Organizing the project
- Developing a preliminary arrangement
- Integrating storage and handling methods

D. Case Problem Continues

- Improving the preliminary plan
- Responding to changing and unforeseen requirements

E. Organizing Your Layout Project

- Recap of phases, steps, and planning documents
- Working forms and templates for your next project
- What top management wants to know