## 2-Day

# **Planning Manufacturing Cells**

## **Description**

A step-by-step application of Systematic Planning of Manufacturing Cells (SPMC), the world's most organized way to plan cells of any kind, size, or complexity. Thousands of cells have been planned using SPMC's universally applicable techniques. Taught by leading authorities, multiple case exercises assure your mastery of this powerful methodology.

Essential learning for those who are planning new cells or reconfiguring cells already in use. Ideal for engineers, supervisors, and team leaders. SPMC's practical methods are easily learned by production operators and support staffs in materials, maintenance, and quality.

## **Objectives**

- To reduce flow time, work-in-process, and material handling cost.
- To improve the planning and performance of manufacturing cells.
- To provide a standard planning method for accelerated implementations of continuous flow, world-class and lean manufacturing.

#### **Who Will Benefit**

- Plant and Manufacturing Managers
- · Manufacturing and process engineers
- Industrial Engineers and systems analysts
- Materials and production planners
- Production supervisors and team leaders
- Cell planning and Lean Manufacturing implementation teams

#### **Timing**

Duration: 2 days

(1-, 3-, and 4-day courses also available)

 Start:
 8:00

 AM Break:
 10:30

 Lunch:
 12:00 - 1:00

 PM Breaks:
 2:15 & 3:45

 Adjourn Day 1:
 5:00

 Adjourn Day 2:
 4:30

#### **Course Outline**

#### Day One

#### A. WELCOME & INTRODUCTION

- · Manufacturing cells defined.
- Foundation for lean manufacturing.
- Real-world benefits of successful cells.
- What risks and difficulties can be expected?

# B. A SHORT-FORM. SIMPLIFIED APPROACH FOR PLANNING SMALL CELLS

- Three fundamentals of cell-planning projects.
- Six-step approach to cell planning and implementation.

#### C. CASE EXERCISE IN PLANNING A SMALL CELL

• Team exercise using the six-step approach.

#### D. HOW TO PLAN MANUFACTURING CELLS

- Typical approaches to cell planning.
- Systematic Planning of Manufacturing Cells (SPMC).
- The four phases of cell planning.
- Pattern of procedures for cell planning.

#### E. SYSTEMATIC PLANNING TECHNIQUES

- Documenting the planning environment.
- · Location and Orientation worksheet.
- Organizing the cell-planning project(s).
- Gathering and analyzing input data.
- How to classify parts.
- Summarizing and communicating parts classifications.

#### F. HOW TO ANALYZE CELL PROCESSES

- Process charting and visualization.
- Process improvement; eliminating waste.
- Determining work content and processing times.

#### **Day Two**

#### A. REVIEW AND QUESTIONS

#### **B. ESTABLISHING CAPACITY, BALANCE & FLOW**

- Equipment requirements and utilization.
- Analyzing flow through the cell.
- Line balancing.
- How to prepare a Cell Flow Diagram.

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#### **Course Outline continued**

#### **Day Two continued**

# C. COUPLING PARTS AND PROCESS INTO AN EFFECTIVE CELL

- Layout and physical arrangement of the cell

   basic choices.
- · Material handling within the cell.
- Team exercise: Develop a cell plan for a real problem, coupling the physical, procedural, and people aspects of a cell.
- Receive and apply a comprehensive 160point checklist and worksheet for cell planning.

#### D. HOW TO SELECT THE BEST PLAN

- Modify and refine overall cell alternatives.
- · Economic considerations.
- Evaluating intangible factors.
- Selecting the most-preferred plan.
- What management wants to know before approving cell plans.

#### **E. COMMON PLANNING ISSUES**

- Training & involvement.
- Performance measurement, pay plans, and incentives.
- Motion economy and ergonomics.

#### F. DETAILED PLANNING & IMPLEMENTATION

- 60-point checklist for detailed design & implementation.
- Tie-in with lean manufacturing and other plant-wide programs.
- Changes to expect: Physical, Procedural, and Personnel-related.
- · Getting started.

#### **EXTENSIVE REFERENCE MATERIALS AND TEXT**

Your 120-page course manual includes a set of practical Working Forms and detailed checklists for immediate application on your current or next cell-planning project. And in addition to your course manual, you will also receive *Planning Manufacturing Cells*, by Lee Hales and Bruce Andersen. This 270-page text provides complete documentation of the SPMC methodology. Dozens of illustrations show cell planning in action.