

MATERIALS MANAGEMENT SEMINAR

(2 days/2 credits)

Date: May 26 & 27, 2011

Location: Moncton

Facilitator: Martin Montanti

WHO SHOULD ATTEND

Individuals looking for either an introduction or a review of the basics of materials management, including forecasting, order points, economic order quantity, material requirements planning and just-in-time concepts. The seminar will also benefit professional purchasers who are assuming more direct responsibilities for the timing and size of purchase or production orders.

YOU WILL LEARN

- Tools and techniques for determining forecasts, order quantities and safety stocks
- Cycle counting to improve inventory accuracy and as a substitute for the annual inventory count
- What to look for and what to expect from a material requirements planning (MRP) system
- Implications and applications of just-in-time concepts in purchasing

COURSE CONTENT

- Intuitive, non-mathematical approaches to forecasting and order point inventory control: forecasting concepts and terminology; impact of forecast length on forecast error; forecast methods (opinion, surveys, moving averages, least squares); turning points; improving accuracy
- In-class forecasting exercises
- Forecasting based on the analysis of underlying causes compared to forecasts based on past usage; defining exponential smoothing in pictures and words; coping with forecast error; choice of smoothing coefficient; types of forecast error; "noisy" forecasts; measuring forecast variability and relating it to safety stock; biased forecasts; tracking signals; producing aggregate forecasts from detailed forecasts; capabilities to look for in forecasting software
- Inventory management systems: continuous review versus periodic review
- MRP fundamentals; independent versus dependent demand; components and benefits of MRP; using MRP to manage inventory, priorities and capacity; role of master production schedules, inventory records, planned lead times and bills of material

- An example of materials planning by MRP
- In-class MRP exercise and case study
- Economic order quantities in MRP; comparison of MRP versus traditional order point inventory control
- MRP versus manufacturing resources planning (MRP II); concept and benefits of capacity requirements planning (CRP)
- Addressing MRP problems: inventory record errors; item proliferation at the master schedule level; reducing work-in-process inventory
- Comparison of MRP versus just-in-time; goal of managing inventory versus eliminating inventory; role of setup time reduction; Kanban (pull system) inventory control; implications for material usage rates and quality