

Course 80550A:**Duration : 40Hrs**

Manufacturing in Microsoft Dynamics NAV 2013

Overview

About this Course

This four day self-study course, Manufacturing in Microsoft Dynamics NAV 2013 provides students with the tools and information to help them better understand and identify the new and enhanced features of Manufacturing in Microsoft Dynamics NAV 2013.

Audience Profile

The primary audience is a Partner that sells and implements NAV 2013. This person typically investigates the customer's environment and makes recommendations on what and how to implement NAV 2013. The Partner needs to understand the manufacturing vertical industry.

Course Details

Course Outline Module 1: Manufacturing Course Overview

This module provides an overview of the Microsoft Dynamics NAV 2013 Manufacturing course. It also provides an outline and brief description of all course modules.

Successfully completing this course helps the reader prepare for the Microsoft Dynamics NAV 2013 Manufacturing certification exam.

Lessons

- Provides a course overview
- Provides a course outline and a brief description of all course modules
- Have an overview of the Microsoft Dynamics NAV 2013 Manufacturing course.
- Complete the Microsoft Dynamics NAV 2013 Manufacturing exam.

Module 2: Sample Company StructureA production Bill of Materials, BOM is a list of all the components and subassemblies used in the production of a parent item. The list includes the description, the quantity, and unit of measure of each component or subassembly.**Lessons**

- Provides an overview of the demonstration company, CRONUS International
- Explains how to set the working date
- Shows how to change the default profile to Production Planner
- Describes license information

Lab : Assign Freight Charges to an Open Purchase Order**Lab : Create an Item Charge Purchase Credit**

Memo

- Provide an overview of the International.
- Explain how to set the working date.
- Show how to change the default profile to Production Planner.
- Describe license information.

Module 3: Production Bill of Materials, BOM

A production bill of materials, BOM is a list of all the components required to produce a parent item. The list includes the description, quantity, and unit of measure of each component, in addition to other information.

Lessons

- Describes the production BOM structure and its basic features
- Explains and demonstrates production BOM advanced features
- Shows production BOM reports

Lab : Create a New Production BOM and BOM Version

- Describe the production BOM structure and its basic features.
- Explain and demonstrates production BOM advanced features.
- Show production BOM reports.

Module 4: Basic Capacities and Routings

The capacity setup establishes a model of the production environment. In a bakery, this could consist of a pastry area, a filling area, different types of ovens, and so on. The tasks that are performed in each area differ, and so does the capacity to perform these tasks.

Lessons

- Explains how to set up capacity
- Shows how to create routings
- Describes the advanced features for routings
- Reviews the standard capacity and routing reports

Lab : Manually Create a New Routing

- Explain how to set up capacity.
- Show how to create routings.
- Describe the advanced features for routings.
- Review the standard capacity and routing reports.

Module 5: Production Orders You use production orders to manage the conversion of raw materials into manufactured products. Raw materials include purchased items and subassemblies, and are also known as components or component items

- Lessons**
- Describes the different production order statuses

- Explains how to create and schedule a production order
- Describes the different types of changes that you can make to a production order and shows how to make each change
- Shows how to use the Production Order batch job
- Explains additional production order topics, such as reservations, statistics, phantom BOMs, and manufacturing batch units of measure
- Reviews the production order listings and reports

Lab : Create a Firm Planned Production Order and Change It

- Describe the different production order statuses.
- Explain how to create and schedule a production order.
- Describe the different types of changes that you can make to a production order and shows how to make each change.
- Show how to use the Production Order batch job.
- Explain additional production order topics, such as reservations, statistics, phantom BOMs, and manufacturing batch units of measure.
- Review the production order listings and reports.

Module 6: Production Order Processing

You typically process a released production order through manufacturing until it is finished. This consists of the following tasks:

Start the production order, Pick components from the warehouse, Consume raw material

Record production output, Register consumption and output together in the production journal, Put away finished goods in the warehouse, Finish the production order and

Production Order Processing describes these tasks in detail.

Lessons

- Reviews the flow of events as production orders move from release until they are finished
- Describes the options and procedures that are related to material consumption and production output
- Shows how to pick components and put away finished goods in the warehouse
- Explains the uses of the consumption journal, output journal, and production journal

Lab : Combine Automatic and Manual Flushing

- Review the flow of events as production orders move from release until they are finished.
- Describe the options and procedures that are related to material consumption and production output.
- Show how to pick components and put away finished goods in the warehouse.
- Explain the uses of the consumption journal, output journal, and production journal.

Module 7: System Setup

System setup explains the setup that is required for the manufacturing functionality in Microsoft Dynamics NAV, and the inventory setup that is related to manufacturing.

Lessons

- Describes all fields on the Manufacturing Setup page
- Explains all fields on the item card that affect manufacturing
- Reviews all fields on the stock keeping unit card that affect manufacturing
- Describe all fields on the Manufacturing Setup page.
- Explain all fields on the item card that affect manufacturing.
- Review all fields on the stock keeping unit card that affect manufacturing.

Module 9: Sales Order Interface and Order Planning

When a company becomes aware of new demand for its products, it must do the following:

Make sure that it obtains the necessary supply of raw material and component subassemblies to meet the demand. Notify production personnel. Microsoft Dynamics NAV lets you achieve both goals by using one or more of the following three methods:

Create a production order directly from a sales order. In the program, this is known as sales order planning, and is described in the Sales Order Planning lesson.

Use the order planning functionality to create production orders directly for different types of demand, such as sales, production, service, and so on. This planning occurs for one level of the bill of materials, BOM at a time, and has many other limitations. Order planning is described in the Order Planning lesson.

Use the planning worksheet to calculate a full regenerative or net change plan by using all demand and supply information that is available to the planning system. The planning worksheet is described in Planning and Additional Planning Topics in this training material.

Lessons

- Describes and demonstrates all aspects of sales order planning
- Explains and demonstrates all aspects of order planning

Lab : Use Order Planning to Create and Reserve Supply

- Describe and demonstrates all aspects of sales order planning.
- Explain and demonstrates all aspects of order planning.

Module 10: Forecasting and Planning

To successfully manage their business, many companies forecast future demand and plan their activities accordingly. In some cases, where the lead time for a product exceeds the delivery expectations of customers, an accurate forecast is the only way to successfully plan for the future.

However, forecasting is not an easy task. An overly optimistic forecast can lead to excess inventory. Too pessimistic a forecast can lead to late deliveries or even lost sales, and will almost certainly lead to customer dissatisfaction.

LESSON PLAN

For manufacturing companies, it is important not only to be able to forecast sales, but also to plan how to fulfill those sales. For companies that operate in fast-changing markets, it is equally important to Reconcile forecasts to actual sales, Adjust forecasts on the fly, if necessary and Quickly adjust production plans to changed forecasts.

Lessons

- Describe the production forecast functionality
- Explain the integration between production forecasting and planning
- Show how actual demand is netted against forecast demand
- Describe forecasting by location, order tracking as it relates to forecasting, and forecasting setup
- Review the forecast reports

Lab : Create Production Forecast

- Describes the production forecast functionality.
- Explains the integration between production forecasting and planning.
- Shows how actual demand is netted against forecast demand.
- Describes forecasting by location, order tracking as it relates to forecasting, and forecasting setup.
- Reviews the forecast reports.

Module 11: Planning

Planning describes the regenerative planning and net change planning functions in Microsoft Dynamics NAV. It also explains order tracking and action messages. Together these functionalities contain the core of the program's planning capabilities.

Lessons

- Describes the general concepts of the planning system
- Introduces the planning worksheet and related functions
- Explains how to use regenerative planning
- Shows how to use net change planning
- Describes how parameters affect the planning process
- Explains how to use order tracking and action messages
- Describes the general concepts of the planning system.
- Introduces the planning worksheet and related functions.
- Explains how to use regenerative planning.
- Shows how to use net change planning.
- Describes how parameters affect the planning process.
- Explains how to use order tracking and action messages.

Module 12: Additional Planning Topics

Additional Planning Topics examines following:

planning issues that are related to the

Item variants, Inventory locations and stock keeping units, SKUs, Transfers between warehouses, Blanket sales orders, Multilevel production orders

This material also explains how to do the following:

Set filters in the planning worksheet.

Change the replenishment system for a planning line.

Refresh planning lines.

Lessons

- Defines item variants
- Explains how to use locations in planning
- Shows how to perform transfers between locations
- Describes how to use blanket sales orders in planning
- Explains how to use multilevel production orders
- Reviews how to filter the planning worksheet
- Shows how to change the replenishment system for a planning line
- Describes how to refresh planning lines
- Identifies the available planning reports

Lab : Plan for an Item Variant and Location SKU

- Defines item variants.
- Explains how to use locations in planning.
- Shows how to perform transfers between locations.
- Describes how to use blanket sales orders in planning.
- Explains how to use multilevel production orders.
- Reviews how to filter the planning worksheet.
- Shows how to change the replenishment system for a planning line.
- Describes how to refresh planning lines.
- Identifies the available planning reports.

Module 13: Subcontracting

A subcontractor is a vendor who performs one or more operational steps in the production process. Depending on the company, subcontracting can be an exception in the production process or an important part of it.

This training material describes how to process subcontract work in Microsoft Dynamics NAV from setup until the work is finished. It also explains how to obtain information on subcontracting operations and ledger entries.

The program offers the following key work.

features to help manage subcontract

Lessons

- Describes how to set up a subcontractor and define subcontractor costs
- Shows how to assign a subcontractor work center to a routing operation
- Explains how to use the subcontracting worksheet to issue purchase orders to subcontractors
- Describes how to post subcontracting purchase orders
- Shows how to review subcontracting ledger entries
- Reviews the Subcontractor – Dispatch List report

Lab : Set up and Process a Subcontracting Operation

- Describes how to set up a subcontractor and define subcontractor costs.
- Shows how to assign a subcontractor work center to a routing operation.
- Explains how to use the subcontracting worksheet to issue purchase orders to subcontractors.
- Describes how to post subcontracting purchase orders.
- Shows how to review subcontracting ledger entries.
- Reviews the Subcontractor – Dispatch List report.

Module 14: Advanced Capacity

Advanced Capacity examines the capacity setup that is required to run production planning with constrained resources. You plan with constrained resources when bottlenecks appear in the production environment.

First, set up the work center group, work center, and machine center hierarchy. Then define the shop calendars and capacity calendars. This establishes the base capacity for each work center or machine center.

Next, register planned absences for each facility. This helps the program calculate accurate capacity calendars for each facility. Finally, you consume capacity through either posting of production order operations, or directly to facilities through entries in the capacity journal.

Lessons

- Explains how to set up work centers and machine centers
- Shows how to set up shop calendars and capacity calendars
- Describes registered absences and how to use them
- Explains how to use capacity journals

Lab : Set Up New Capacity

- Explains how to set up work centers and machine centers.
- Shows how to set up shop calendars and capacity calendars.
- Describes registered absences and how to use them.
- Explains how to use capacity journals.

Module 15: Shop Loading

When you create work centers and machine centers in Microsoft Dynamics NAV, you define a company's manufacturing capacity. Suppose that a company has a machine center that performs the final assembly of products. If that machine center operates five days a week for 10 hours a day at one hundred percent efficiency, then the company has a capacity of 50 hours a week for final assembly.

When you plan or schedule a production order for manufacturing, you create demand for the work centers and machine centers that are required to process that production order. For example, if you release a production order that requires 30 hours of final assembly work, that production order represents 30 hours of demand for the machine center that performs the final assembly task.

When you compare demand to capacity for a work center or machine center, you measure the load for that production facility. For example, when you schedule 30 hours of work in a week for a machine center that has a capacity of 50 hours, that machine center has a load of 60 percent for that week.

Lessons

- Describes the basic tools that are used to manage shop loading
- Explains how to manage shop loading by assuming infinite capacity
- Shows how to manage shop loading by using finite capacity
- Reviews the reports that are related to shop loading
- Describes the basic tools that are used to manage shop loading.
- Explains how to manage shop loading by assuming infinite capacity.
- Shows how to manage shop loading by using finite capacity.
- Reviews the reports that are related to shop loading.

Module 16: Additional Manufacturing Topics

Additional Manufacturing Topics describes several advanced manufacturing features that are offered by Microsoft Dynamics NAV. These include the following:

Standard tasks, Stop codes, Additional scrap-related features, Methods to define and record non-productive time, Methods to reduce lead time, Multilevel production orders and

Production families.

Lessons

- Describes standard tasks and how to use them
- Explains stop codes and how to use them
- Reviews the various options for recording scrap and the relationships between the options
- Defines non-productive time and shows how to use it in a production order
- Shows how to reduce lead time
- Describes how to make consumption journal entries and output journal entries for multilevel production orders
- Defines production families and shows how to use them in a production order
- Describes standard tasks and how to use them.

- Explains stop codes and how to use them.
- Reviews the various options for recording scrap and the relationships between the options.
- Defines non-productive time and shows how to use it in a production order.
- Shows how to reduce lead time.
- Describes how to make consumption journal entries and output journal entries for multilevel production orders.
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