MS-MB320T00: MICROSOFT DYNAMICS 365 SUPPLY CHAIN MANAGEMENT, MANUFACTURING

DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	TRAINING CREDITS
4 Days	Beginner	Dynamics 365	Instructor-led	NA

INTRODUCTION

This course discusses manufacturing in the Dynamics 365 suite of apps: discrete manufacturing, lean manufacturing, and production.

AUDIENCE PROFILE

A Dynamics 365 Finance Functional Consultant is responsible for performing discovery, capturing requirements, engaging subject matter experts and stakeholders, translating requirements, and configuring the solution and applications. The Functional Consultant implements a solution using out of the box capabilities, codeless extensibility, application and service integrations.

PREREQUISITES

Learners should start this course already having the following skills:
−   Basic manufacturing skills
−   Dynamics 365 Core skills

COURSE OBJECTIVES

After completing this course, students will be able to:
−   Be proficient in manufacturing in Dynamics 365

COURSE CONTENT

Module 1: Get Started with Production Control
This module explains the concepts used in the Production control module in Finance and Operations.
Lessons
−   Introduction
−   Compare discrete, lean and process manufacturing
−   Configure production control for unified manufacturing
−   Understand capacity planning
−   General ledger and production control module
Practice labs
Module summary
−   Discrete, lean, and process manufacturing methodologies
−   Unified manufacturing
−   How to configure production control for unified manufacturing
−   Capacity planning
−   Interconnectivity between the General ledger and the Production control modules
−   Production pools

Module 2: Get Started with Discrete Manufacturing
Even though each legal entity's manufacturing processes are unique, depending on the nature of the production environment, the core conceptual elements that are used in the Production control module are frequently very similar.
Lessons
−   Introduction
−   Understand the discrete production process statuses
−   Understand the bill of materials
−   Working with BOM and item configurations
−   Create bill of materials
−   Production orders
Practice Labs
Module summary
−   Discrete manufacturing concepts
−   Production process statues
−   Production stages
−   Bill of Material (BOM)

−   Resources
−   Routes and Operations

Module 3: Configure Discrete Manufacturing
Before you can work in the Production control module, and create production orders, you must set up production parameters. The parameters you select have direct impact on the production order and the production life cycle. You can set the parameters by company or by site, which determines whether Dynamics 365 for Finance and Operations uses the company-level parameters or the site-specific parameters. Parameters, Production Orders and Life Cycle reviews how these parameters are defined, how journal names are used, how production orders are created, and the ways in which they are processed through manufacturing based on their status and the production life cycle. This lesson explains how to configure

Discrete manufacturing in Finance and Operations.
Lessons
– Introduction
– Prepare general ledger for production
– Configure production control parameters
– Configure calendar and resources
– Configure operations and routes
Practice lab
Module summary
– Configure inventory dimensions in production
– Configure parameters, production orders and status
– Configure calendars and resources
– Configure operations and routes

Module 4: Create and Complete Production Orders
The life cycle of a production order reflects the actual steps that are taken to manufacture a product. It begins with the creation of a production order and ends with a finished, manufactured product that is ready for the customer. The production order is assigned a status that reflects where it is in the production life cycle. This module reviews the Release, Start, Report as finished, and End stages in the production life cycle in the order in which they are conducted. Release, Start, and Report as finished are considered part of production control
Lessons
– Introduction
– Capacity planning, scheduling, and subcontracting
– Scrap and waste
Practice Labs
Module summary
– Understand capacity planning
– Create discrete production orders
– Schedule a production order
– Process production orders
– Control and end production

Module 5: Work with Cost Sheeting
This module describes how to set up a costing sheet that includes material and manufacturing, and how the setup affects the BOM calculation results. Let's learn how to configure and manage costing sheet in Finance and Operations.
Lessons
– Introduction
– Understand the costing sheet
– BOM calculation and analyse costing sheet
Module summary

– How to work with the costing sheet

Module 6: Use Manufacturing Execution
Manufacturing execution is primarily intended to be used by manufacturing companies. Workers can register time and item consumption on production jobs and project activities using the Job registration form. All registrations are approved and subsequently transferred to the relevant Dynamics 365 for Finance and Operations modules. Continuous approval and transfer of registrations give managers the ability to easily track actual costs on production orders.
Lessons
– Introduction
– Understand the manufacturing executions
– Identify roles
– Planning considerations
– Configure manufacturing execution
– Control production
Practice Labs
Module summary
– Understand the manufacturing execution
– Identify the roles in manufacturing execution
– Process production orders
– Understand the process workflows to manage a production

Module 7: Get Started with Product Configuration
Product configuration is a constraint-based product configuration tool that uses the Microsoft Solver Foundation (MSF) product technology that is designed for modelling and constraint solving. You can use product configuration to create and maintain product configuration models, and to reuse components and attribute types. Attributes, constraints, subcomponents, user requirements, Bill of Material (BOM) lines, and route operations are implicitly reused when you reuse a component. Components can also reuse table constraint definitions.
This module explains how to get started with product configurator in Finance and Operations.
Lessons
– Introduction
– Understand the product configuration model
– Build a product configuration model
Practice Labs
Module summary
– The terminology that is important for understanding the concepts and processes

– Product configuration end-to-end scenario
– The different areas that span the product configuration process
– The product configuration model
– How to build a product configuration model

Module 8: Get Started with Lean Manufacturing
This topic explains how to get started with the Lean manufacturing in Finance and Operations.
Lessons
– Introduction
– Concepts and terminology
Module summary
– Understand Lean manufacturing
– Understand Lean concepts and terminology

Module 9: Configure Lean Manufacturing
This topic explains how to configure Lean manufacturing in Finance and Operations. A Lean manufacturing scenario is usually more than an accumulation of unrelated Kanban rules or material-supply policies. The flow of material and products throughout work cells and locations for a specific production or supply scenario can be described as a sequence or small network of process or transfer activities, called a production flow. The activity-based production flows are introduced in Finance and Operations to establish a production and cost context for various Kanban scenarios. All Kanban rules are directly connected to this pre-defined structure. The activity-based model allows users to set up a wider range of scenarios than supported by previous versions of Lean manufacturing for Finance and Operations, without adding complexity for the shop floor workers because all scenarios use the same activity-based user interface.
Lessons
– Introduction
– Configure parameters
– Create value streams and production flow models
– Create production flows
Practice Labs
Module summary
– Configure parameters
– Configure value streams
– Create Production Flows
– Configure lean manufacturing work cells

Module 10: Create and Process Fixed Kanban Rules

In Dynamics 365 for Finance and Operations, a Kanban is implemented as a framework to plan, track, and process based on Pull signals. A Kanban is an essential part of a pull system of supply, which is a critical element of Lean production/supply. When a Kanban has been consumed, it should be passed (triggered) to the source of supply to replenish it. This source of supply is defined through the production flow activities to which the Kanban is linked. Kanban rules in Finance and Operations are tied to production flows as the foundation that defines the activities of a Kanban. Kanban rules can be set up to support a variety of make-to-stock and make-to-order scenarios.

Lessons
- Introduction
- Kanban boards
- Configure a fixed Kanban rule
- Process fixed Kanbans

Practice Labs
Module summary
- You understood an overview of Kanbans and Kanban types
- How to configure and process Fixed Kanban rules
- Kanban rules
- Manufacturing Kanbans
- Withdrawal Kanbans
- Fixed quantity Kanbans

Module 11: Create and Process Event Kanban Rules
In this module we discuss the event kanbans and different ways to trigger them.

Lessons
- Introduction
- Configure event Kanban rules
- Configure sales, Kanban, stock replenishment and BOM line events

Practice labs
Module summary
- Configure and process event Kanban rules
- Kanban rules
- Manufacturing Kanbans
- Withdrawal Kanbans
- Create and manage sales line event Kanban
- Create and manage BOM line event Kanban
- You understand sample scenarios for event kanban processes and different event kanban types

Module 12: Create and Process Scheduled Kanban Rules
The planned orders of type Kanban are created based on the Kanban rule and follow the standard Master Planning logic and horizons. Master Planning item coverage settings determine how the planned orders

are created and whether they are automatically or manually firmed. In this module we discuss the scheduled kanbans in Dynamics 365 for Finance and Operations.

Lessons
- Introduction
- Configure scheduled Kanban rules
- Understand Kanban quantity calculations and circulation Kanbans

Practice labs
Module summary
- Configure and work with Kanban rules
- Configure and work with Manufacturing Kanbans
- Configure and work with Withdrawal Kanbans
- Configure and work with Create and manage scheduled Kanban
- Configure and work with Supply schedule
- Configure and work with Kanban quantity calculations

Module 13: Configure Activity-Based Subcontracting and Production Flow Costing
The basic principle of a production flow does not change when activities are subcontracted using Finance and Operations; material still flows between locations, process activities convert material to products, and transfer activities move material or products from one location to another. In Dynamics 365 for Finance and Operations, there are two approaches for subcontracting: production orders and Lean manufacturing.

The first approach models the subcontracting work as a service that is related to an activity of a production flow. A cost group type, direct outsourcing, is required to be configured, so that the subcontracting services are not as part of a BOM. The cost accounting of subcontracted work is completely integrated in the new costing for manufacturing in Microsoft Dynamics 365 for Finance and Operations.

Lessons
- Introduction
- Configure activity-based subcontracting
- Understand production flow costing

Practice labs
Module summary
- Configure activity-based subcontracting
- Configure production scheduling and subcontracting
- Designate vendors as subcontractors
- Configure production flow costing

Module 14: Get Started with Process Manufacturing
This topic explains how to get started with process manufacturing in Finance and Operations.

Lessons
- Introduction
- Understand process manufacturing
- Understand formula management
- Understand co-products and by-products
- Configure approved vendors

Practice labs
Module summary
- Understand process manufacturing
- Understand formula management
- Understand co-products and by-products
- Understand approved vendors

Module 15: Identify and Configure Batch Attributes for Process Manufacturing
This topic explains how to configure batch attributes in Finance and Operations.

Lessons
- Introduction
- Identify and configure batch attributes
- Create and configure catch weight items
- Setup potency management

Practice labs
Module summary
- Understand Batch Attributes
- Identify and configure batch attributes
- Understand Lot and Batch Control processes
- Configure batch rework

Module 16: Configure Commodity Pricing and Product Compliance
This topic explains how to work with commodity pricing, and compliance in Finance and Operations.

Lessons
- Introduction
- Configure commodity pricing
- Configure product compliance

Practice labs
Module summary
- Configure commodity pricing
- Configure product compliance

Module 17: Use Warehouse Management for Manufacturing
The objectives of this module are to review the interaction between manufacturing and warehouse reservations, review setup of item model groups to utilize manufacturing and warehousing and discuss the rules related to the

reservation of items using both process manufacturing and warehousing.

Lessons
- Introduction
- Prepare warehouse management for manufacturing
- Use warehouse management for manufacturing
- Module summary
- Understand production waves
- Create wave templates for production orders

- Direct raw material route operations
- Review of how to configure and use mobile devices with process production
- Reserve raw materials
- Release production orders
- Process a production pick
- Process a production report as finished
- Set up for batch orders
- Process batch orders
- Review batch orders with potency

- Review batch orders with co-products and by-products
- Work with locations for finished goods
- Input locations for resource consumption

Module 18: Course Conclusion Wrap up manufacturing

Lessons
- Final assessment
- Course summary

ASSOCIATED CERTIFICATIONS & EXAM

This course will prepare delegates to write the MB-320: Microsoft Dynamics 365 Supply Chain Management, Manufacturing exam.