# Academia (PP)
## Production Planning

**TSCM40**
**TSCM42**

En cualquier compañía el perfil productivo, cuando hablamos de fabricación, tenemos que alinear y gestionar diferentes recursos y procesos. La naturaleza y limitaciones de estos recursos están determinadas por las decisiones estratégicas que toma la estructura directiva de la compañía. Dentro de SAP ERP el día a día de la gestión de las plantas de producción se enmarca dentro del módulo de Control y Planeación de la Producción de SAP (SAP PP). El objetivo de SAP PP es asegurar que la producción se lleva a cabo de forma efectiva, alineando los procesos de producción con los tiempos de entrega prometidos a los clientes.

# Academia (PP) Production Planning

COURSE DESCRIPTION

## TSCM40
## Planning / Manufacturing I 1

**Unit 1:** Overview of Master Data for Production

Lesson: Accessing and Creating Types of Data
Lesson: Using Organizational Elements and Master Data in Production

**Unit 2:** Organizational Data in Supply Chain Management

Lesson: Creating a Plant in SAP ERP
Lesson: Creating a Storage Location in SAP ERP
Lesson: Creating MRP Areas

**Unit 3:** Material Masters

Lesson: Describing the Structure of the Material Master Record
Lesson: Maintaining Prerequisites for Creating Material Masters
Lesson: Creating a Material Master Record
Exercise 1: Create a Material Master Record
Lesson: Classifying Material Master Records
Exercise 2: Classify Material Master Records
Lesson: Managing the Material Master
Exercise 3: Change a Material Master Record

**Unit 4:** Bills of Material (BOMs)

Lesson: Describing the Structure of the Bill of Material
Exercise 4: Describe Bill of Material Structure
Lesson: Managing the Validity of BOMs
Exercise 5: Manage BOM Validity
Lesson: Managing Bills of Material
Exercise 6: Make Bills of Material Changes
Lesson: Using ECM to Change BOMs
Exercise 7: Use ECM to Make BOM Changes
Lesson: Analyzing Bills of Material
Exercise 8: Use Multilevel BOM Reporting
Lesson: Configuring Bills of Material
Exercise 9: Configure a Bill of Material

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**Unit 5:** Modeling the Manufacturing Process

Lesson: Describing the Structure of Master Data

Lesson: Creating Work Centers

Exercise 10: Create a Work Center

Lesson: Creating Capacities in the Work Center

Exercise 11: Create Capacities in the Work Center

Lesson: Integrating Costing with the Work Center

**Unit 6:** Task Lists

Lesson: Describing the Structure of the Task List

Exercise 12: Create a Simple Routing

Lesson: Creating Material Assignments and Component Allocations

Exercise 13: Create Material Assignments and Component

Allocations

Lesson: Creating Suboperations and User-Defined Fields

Exercise 14: Create Suboperations and User-Defined Fields

Lesson: Analyzing and Changing Task Lists

Exercise 15: Make Task List Changes with ECM

**Unit 7:** Advanced Bill of Material Functions

Lesson: Describing Phantom Assemblies

Lesson: Creating Co-Products and By-Products

Exercise 16: Create Co-Products in Production Orders

Lesson: Creating Alternative Components

Exercise 17: Substitute Items in Production Orders

Lesson: Creating Multiple BOMs

Exercise 18: Create Multiple BOMs

Lesson: Creating Variant BOMs

Exercise 19: Create Variant BOMs

Lesson: Using Mass Change and the Product Structure Browser

Exercise 20: Use Mass Change and the Product Structure Browser

**Unit 8:** Advanced Routing Functions

Lesson: Modeling Complex and Flexible Manufacturing
Exercise 21: Create Alternative and Parallel Sequences
Lesson: Modeling Alternative Manufacturing Processes
Exercise 22: Create Alternative Routings and Production Versions
Lesson: Creating Reference Operation Sets
Exercise 23: Create Reference Operation Sets
Lesson: Using Lead-Time Scheduling to Update the Material Master
Exercise 24: Use Lead-Time Scheduling and Material Master
Updates
Lesson: Scheduling Time Elements and Reduction in the Routing
Exercise 25: Schedule Time Elements and Reduction in the Routing
Lesson: Creating Trigger Points
Lesson: Using Scrap in the Routing
Exercise 26: Set Scrap in Production
Lesson: Creating Production Resources and Tools
Exercise 27: Create Production Resources and Tools

**Unit 9:** Alternative User Interfaces

Lesson: Describing the Structure of the Engineering Workbench
Lesson: Setting the Work Area, Selection Criteria, and Effectivity
Window
Exercise 28: Set Work Area, Selection Criteria, and Effectivity
Window
Lesson: Navigating in the Engineering Workbench
Exercise 29: Navigate in the EWB
Lesson: Creating Engineering Workbench Work Areas
Exercise 30: Create Work Area
Lesson: Using the PLM Web User Interface
Exercise 31: Use PLM Web User Interface
Lesson: Using Status and Action Management
Exercise 32: Use Status and Action Management
Lesson: Synchronizing BOMs using Guided Structure
Synchronization
Exercise 33: Use Guided Structure Synchronization
Lesson: Tracking Changes in BOMs Using Redlining
Exercise 34: Use BOM Redlining

# Academia (PP) Production Planning

## COURSE DESCRIPTION

### TSCM40
### Planning / Manufacturing I 2

**Unit 1:** Overview of Production Planning in SAP ERP

Lesson: Outlining the Supply Chain Planning Process
Lesson: Outlining the Core Production Planning Process
Exercise 1: Run the Production Planning Process

**Unit 2:** Demand Management

Lesson: Introducing Demand Management
Lesson: Planning Make-to-Stock Production Without Consumption Logic
Exercise 2: Post Goods Issue in Planning Strategy 10
Lesson: Planning Make-to-Stock Production with Consumption Logic
Exercise 3: Apply Planning Strategy 40
Exercise 4: Apply Planning Strategy 70
Lesson: Planning Make-to-Order Production Without Consumption Logic
Lesson: Planning Make-to-Order Production with Consumption Logic
Exercise 5: Apply Planning Strategy 50
Lesson: Assembly Processing in Make-to-Order Production
Lesson: Applying Demand Management Enhancements
Exercise 6: Check Strategy and MRP Group Customizing
Lesson: Analyzing Availability Check Basics
Exercise 7: Check Availability for Sales Order

**Unit 3:** Material Requirements Planning Execution

Lesson: Outlining the Basic Concept of Material Requirements Planning
Lesson: Setting up the MRP Prerequisites
Lesson: Executing the MRP Run
Lesson: Setting up the MRP Run
Exercise 8: Evaluate the Planning File
Lesson: Planning MRP Interactively
Exercise 9: Use the Simulation Mode
Lesson: Firming Planned Orders
Exercise 10: Apply Firming Mechanisms

**Unit 4:** Technical Processes of Requirements Planning

Lesson: Calculating Net Requirements

Lesson: Buffering Net Requirements Calculation

Exercise 11: Apply Buffers in Net Requirements Calculation

Lesson: Calculating Lot Sizes

Exercise 12: Apply Lot-Sizing Procedures

Lesson: Selecting Procurement Types

Exercise 13: Apply Quota Arrangement in Production Planning

Lesson: Setting Up Basic-Date Scheduling

Exercise 14: Apply Basic-Date Scheduling

Lesson: Setting up Lead-Time Scheduling

Exercise 15: Apply Lead-Time Scheduling

Lesson: Selecting BOM and Routing

Exercise 16: Evaluate the BOM Selection

Exercise 17: Evaluate the Routing Selection

**Unit 5:** MRP Results Processing and Evaluations

Lesson: Comparing MRP List and Stock/Requirements List

Exercise 18: Apply Functions of Stock/Requirements List

Exercise 19: Apply Display Filter and Selection Rule

Lesson: Applying the Planning Table

Lesson: Identifying Exception Messages

Exercise 20: Apply the Collective Display of MRP Lists

Exercise 21: Perform a Rescheduling Check

Lesson: Applying Additional Evaluation Aids

**Unit 6:** Additional MRP Processes

Lesson: Applying Master Production Scheduling

Exercise 22: Perform Master Production Scheduling

Lesson: Setting up Long-Term Planning

Exercise 23: Set up a Long-Term Planning Scenario

Lesson: Executing Long-Term Planning

Exercise 24: Execute Long-Term Planning

Lesson: Analyzing Multi-Site Planning

Exercise 25: Perform Multi-Site Planning

Lesson: MRP Areas Setup

Exercise 26: Prepare the System for Planning with MRP Areas

Lesson: Applying MRP Areas

Exercise 27: Apply Storage Location MRP Areas

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## COURSE DESCRIPTION

## TSCM42
## Planning / Manufacturing II 1

**Unit 1:** Introduction to Production Orders

Lesson: Outlining SAP Supply Chain Management
Lesson: Characterizing Production Orders
Lesson: Embed Production Orders in Supply Chain Management
Exercise 1: Demonstrate the Basic Production Order Process

**Unit 2:** Order Processing and Order Structure

Lesson: Processing Production Orders
Exercise 2: Process a Production Order
Lesson: Analyzing the Production Order Structure
Exercise 3: Explore the Production Order Structure

**Unit 3:** Order Creation

Lesson: Creating Production Orders Without Master Data
Exercise 4: Create a Production Order Without Master Data
Lesson: Creating Production Orders Based on Planned Orders
Exercise 5: Create a Production Order Based on a Planned Order
Lesson: Creating Production Orders Without Planned Orders
Exercise 6: Create a Production Order Without a Planned Order
Lesson: Defining Order Types
Exercise 7: Define an Order Type
Lesson: Creating Production Orders with Master Data
Exercise 8: Create a Production Order with Master Data
Lesson: Scheduling of Production Orders
Exercise 9: Analyze Scheduling of a Production Order
Lesson: Costing of Production Orders
Exercise 10: Analyze Costing of a Production Order

**Unit 4:** Order Release

Lesson: Checking Material Availability
Exercise 11: Check Material Availability
Lesson: Checking Capacity Availability
Lesson: Checking PRT Availability
Lesson: Planning Capacities
Exercise 12: Plan Capacities for Production Orders
Lesson: Releasing Production Orders
Exercise 13: Release a Production Order

### Unit 5: Order Documents

Lesson: Setting up Order Print Control
Lesson: Printing Production Orders
Exercise 14: Print Order Documents

### Unit 6: Material Staging

Lesson: Staging Material
Exercise 15: Stage Material for Production Orders Using the Pull List
Exercise 16: Stage Material for Production Orders Using KANBAN
Lesson: Withdrawing Material
Exercise 17: Perform Goods Issue for Production Order

### Unit 7: Confirmations

Lesson: Parameterizing Confirmations
Exercise 18: Set the Parameters for Order Confirmation
Lesson: Executing Confirmations
Exercise 19: Carry Out Confirmations for Production Orders

### Unit 8: Goods Receipt

Lesson: Enabling Goods Receipts
Lesson: Posting Goods Receipts
Exercise 20: Post Goods Receipts

### Unit 9: Order Settlement, Archiving, and Deletion

Lesson: Settling Production Orders
Exercise 21: Settle Orders
Lesson: Archiving and Deleting
Exercise 22: Archive and Delete Production Orders

### Unit 10: Information Systems and Automation

Lesson: Applying Information Systems
Lesson: Automating and Mass Processing
Lesson: Applying Collective Orders
Lesson: Applying Trigger Points

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**Unit 11:** Further Functions and Enhancements

Lesson: Applying Order Split

Exercise 23: Apply Order Split Functionality

Lesson: Applying Shift Reports and Shift Notes

Exercise 24: Apply Shift Reports and Shift Notes

Lesson: Applying Work-in-Process (WIP) Batches

Exercise 25: Apply WIP Batches

Lesson: Applying SAP Execution Steps (XSteps) for Routings and
Production Orders

Exercise 26: Apply XSteps for Routings and Production Orders

Lesson: Outlining the Production Planning – Plant Data Collection
(PP-PDC) Interface

Lesson: Outlining SAP Manufacturing Integration and Intelligence
(SAP MII) in Shop Floor Control

Lesson: Applying Handling Units in Production

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COURSE
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## TSCM42
## Planning / Manufacturing II 2

| Unit 1: | Introduction to Production Execution |
|---|---|
| | Lesson: Distinguishing Production Types |

| Unit 2: | Production with Process Orders |
|---|---|
| | Lesson: Drafting Process Orders |
| | Exercise 1: Analyze Master Data of Process Orders |
| | Lesson: Creating and Interpreting Process Orders |
| | Exercise 2: Process Planning for Process Orders |
| | Exercise 3: Evaluate the Results of MRP |
| | Exercise 4: Create Process Orders by Conversion of Planned Orders |
| | Exercise 5: Evaluate Details of the Process Order |
| | Lesson: Executing Process Orders |
| | Exercise 6: Release a Process Order |
| | Exercise 7: Execute a Process Order Using the PI Sheet |
| | Exercise 8: Review the Results of Execution on Production Planning |
| | Lesson: Using Additional Functions with Process Orders |

| Unit 3: | Repetitive Manufacturing |
|---|---|
| | Lesson: Drafting Repetitive Manufacturing |
| | Exercise 9: Check the Material Master of Repetitive Manufacturing |
| | Exercise 10: Check the Bill of Material of Repetitive Manufacturing |
| | Exercise 11: Check the Routing of Repetitive Manufacturing |
| | Exercise 12: Check the Product Cost Collector of Repetitive Manufacturing |
| | Lesson: Preparing Repetitive Manufacturing |
| | Exercise 13: Verify Material Master Settings for Repetitive Manufacturing |
| | Exercise 14: Create a Production Program for Repetitive Manufacturing |
| | Exercise 15: MRP in Repetitive Manufacturing |
| | Lesson: Planning Line Loading in Repetitive Manufacturing |
| | Exercise 16: Perform Line Loading in Repetitive Manufacturing |
| | Lesson: Using Material Staging and Confirmation |
| | Exercise 17: Perform Material Staging for Repetitive Manufacturing |
| | Exercise 18: Confirm Production Quantities in Repetitive Manufacturing |
| | Lesson: Integrating Costing, Controlling, and Reporting |

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### Unit 4: The Kanban Principle

Lesson: Drafting Kanban
Lesson: Using Kanban in Production
Exercise 19: Check a Kanban Material
Exercise 20: Check the Kanban Control Cycle
Exercise 21: Proceed Kanban Execution

### Unit 5: Capacity Requirements Planning (ERP)

Lesson: Introducing Capacity Requirements Planning
Lesson: Evaluating Capacity
Exercise 22: Use the Standard Overview
Lesson: Leveling Capacity in the Tabular Planning Table
Exercise 23: Use the Tabular Capacity Planning Table
Lesson: Maintaining Available Capacity
Lesson: Leveling Capacity in the Graphical Planning Table
Exercise 24: Apply Planning Strategies in the Graphical Planning Table
Lesson: Evaluating Capacity Using Business Intelligence
Exercise 25: Use BI to Perform Capacity Evaluation