CONCEPT

Accounting Information Systems: ERP Finance Design, Transaction Cycles and System Controls

3 – 14 May 2027
Barcelona - Eixample district four-star



Accounting Information Systems: ERP Finance Design, Transaction Cycles and System Controls

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Introduction:

Accounting information systems often grow by patchwork: account codes added without logic, sub-ledgers that never agree with the ledger, interfaces that drop records and manual accruals that nobody can trace. Month-end slows, segment reports disagree and auditors cannot follow a transaction from source document to financial statement. This Core Concept course shows finance and audit staff how an accounting information system is designed, how each transaction cycle posts through ERP finance modules and how system controls and audit trails keep the data reliable. Participants build an AIS Blueprint with a System Control Matrix and Audit Test Plan.

Course Objectives:

- Design a chart of accounts coding block and a general ledger and sub-ledger structure that support statutory, segment and management reporting
- Map procure-to-pay, order-to-cash, payroll, fixed asset and inventory cycles to their source documents, posting rules and control accounts
- Configure period-end automation, including recurring journals, accruals, reversals and allocations, within an ERP finance module
- Specify input, processing, output and interface controls, together with access, change and operations controls, for each accounting cycle
- Test accounting data with audit trails and computer-assisted audit techniques to detect duplicate, unusual and unauthorised postings
- Plan the selection, data conversion, testing and upgrade of an accounting system with key users and finance stakeholders

Target Audience:

- Accountants who record, reconcile and close ledgers inside an ERP or accounting package
- Finance systems staff who maintain posting rules, master data, interfaces and user roles
- Internal auditors who rely on system-generated accounting data and audit trails
- ERP finance key users who test changes, train colleagues and raise configuration requests
- Finance process owners who take part in accounting system selection, rollout or upgrade projects

Course Outline:

Day 1: AIS Architecture and the Finance Data Model

- Presentation, Application and Database Layers of an Accounting Information System
- Transaction Data, Master Data and Reference Data in the Finance Data Model
- Event-to-Entry Mapping From Business Event to Journal Line
- Document Flow Diagrams and System Flowcharts for Accounting Processes
- AIS Data Ownership Map Across Finance, Operations and IT

Day 2: Chart of Accounts, Coding Blocks and Ledger Structure

- Coding Block Design: Natural Account, Cost Centre, Profit Centre and Project Segments
- Account Hierarchies and Roll-Up Rules for Statutory and Management Views
- General Ledger and Sub-Ledger Architecture for Receivables, Payables, Assets and Inventory
- Control Accounts and Automatic Sub-Ledger-to-Ledger Agreement
- Multi-Entity, Multi-Currency and Parallel Ledger Configuration Choices

Day 3: Transaction Cycles: Source Documents, Postings and Integration Points

- Procure-to-Pay Document Chain: Requisition, Purchase Order, Goods Receipt and Three-Way Match
- Order-to-Cash Document Chain: Sales Order, Delivery Note, Invoice and Cash Application
- Payroll Cycle Postings: Gross-to-Net Interface and Payroll Clearing Accounts
- Fixed Asset Cycle: Capitalisation From Purchase Orders, Depreciation Runs and Retirement Postings
- Inventory Cycle: Perpetual Valuation, Goods Received Not Invoiced and Cost of Sales Postings

Day 4: ERP Finance Modules, Interfaces and Period-End Automation

- ERP Finance Module Map: Ledger, Payables, Receivables, Assets, Cash and Costing
- Operations-to-Finance Integration Through Automatic Account Determination Tables
- Interface Types: Batch Files, Application Programming Interfaces and Middleware Queues
- Recurring Journals, Automated Accruals, Reversals and Allocation Cycles
- System Close Calendar: Period Opening, Sub-Ledger Cut-Off and Ledger Lock

Day 5: Week One Case: Mapping a Distribution Company's Accounting System

- Financial Statement Versions, Segment Reports and Management Pack Structures
- Consolidation Feeds: Intercompany Matching, Elimination Tags and Group Upload Files
- Distribution Company Case File: Order-to-Ledger Process Walkthrough
- Coding Block Redesign Exercise for Segment Profitability Reporting
- AIS Data Flow Diagram and Cycle Posting Matrix Draft

Day 6: Application Controls Inside Accounting Software

- Input Controls: Field Validation, Mandatory Fields, Tolerance Limits and Duplicate Invoice Checks
- Processing Controls: Batch Totals, Run-to-Run Balancing and Automated Matching Rules
- Output Controls: Report Distribution, Exception Listings and Trial Balance Integrity Checks
- Configurable Controls: Workflow Approvals, Posting Period Restrictions and Credit Limit Blocks
- Interface Controls: Record Counts, Hash Totals and Rejected-Item Suspense Handling

Day 7: IT General Controls, System Segregation of Duties and Master Data Governance

- Finance Role Design, Least Privilege and Periodic User Access Recertification
- Segregation of Duties Conflict Rulesets for Payables, Receivables and Ledger Functions
- Configuration Change Control: Transport Logs, Test Evidence and Emergency Changes
- Batch Job Scheduling, Monitoring and Restore Checks for Finance Data
- Vendor, Customer and Bank Master Data Change Requests With Dual Approval

Day 8: Accounting System Selection, Implementation and Upgrade

- Finance Requirements Catalogue and Fit-Gap Analysis
- Vendor-Neutral Selection Scorecard: Functional, Technical, Cost and Support Criteria
- Data Conversion Plan: Opening Balances, Open Items and Master Data Cleansing
- User Acceptance Test Scripts, Parallel Running and Go-Live Checklist
- Key User Network, Finance User Training and Upgrade Release Impact Assessment

Day 9: Audit Trails, Computer-Assisted Audit and AIS Health Measures

- Audit Trail Design: Document Numbering, Change Logs and User Stamps on Postings
- Computer-Assisted Audit Techniques: Data Extraction, Field Mapping and Population Profiling
- Analytic Tests on Ledger Data: Duplicate Payments, Weekend Postings and Sequence Gaps
- Manual Journal Population Testing With Risk Criteria and Follow-Up Queries
- AIS Health Indicators: Close Duration, Automation Rate, Suspense Balances and Interface Errors

Day 10: Capstone: AIS Blueprint, System Control Matrix and Audit Test Plan

- Case Company Brief: Manufacturing and Services Group Moving to an Integrated Finance System
- AIS Blueprint Build: Coding Block, Ledger Structure and Cycle Posting Matrix
- System Control Matrix Build by Cycle: Application, Access, Change and Interface Controls
- Audit Test Plan Build: Data Analytics Tests and Control Walkthrough Steps
- AIS Blueprint Presentation and Peer Challenge

Skills You Will Gain:

- Chart of Accounts Coding Design
- Ledger and Sub-Ledger Structuring
- Transaction Cycle Mapping
- Posting Rule Configuration
- Application Control Specification
- System Access Conflict Analysis
- Accounting Data Analytics
- Finance System Requirements Analysis

Why Attend This Course:

- Leave with an AIS Blueprint, System Control Matrix and Audit Test Plan built on a multi-sector case company
- Trace any transaction from source document through sub-ledger and interface to the financial statements
- Cut close delays and suspense balances by automating accruals, allocations and reconciliations inside the system
- Compare accounting system practice with finance and audit peers from trading, manufacturing, services and public entities

Conclusion:

Reliable accounting data depends on how the system is built, not only on the people who enter it. Week one covers AIS architecture, coding blocks, ledgers, transaction cycles, ERP finance modules, interfaces and period-end automation, tested on a distribution company case. Week two adds application controls, IT general controls, system segregation of duties, master data governance, system selection and upgrade, audit trails and computer-assisted audit. The final day produces an AIS Blueprint with a System Control Matrix and Audit Test Plan for a case company.