

Siemens Teamcenter X - Cloud Product Lifecycle Management

Target Audience

This course is designed for PLM administrators, product designers, design engineers, CAD users, engineering managers, product data managers, manufacturing engineers, and professionals involved in product lifecycle management. It is also suitable for organizations implementing Siemens Teamcenter X as their cloud-based PLM platform and for individuals seeking to develop practical skills in managing engineering data, product structures, workflows, and cross-functional collaboration using Teamcenter X.

Course Objective

The objective of this course is to provide participants with a comprehensive understanding of Siemens Teamcenter X for managing product lifecycle information in a cloud-based environment. Participants will learn how to organize product data, manage documents and product structures, automate engineering workflows, control product configurations and changes, collaborate across engineering teams, integrate CAD and enterprise applications, administer security, generate reports, and implement Teamcenter X using industry best practices.

Course Outcome

Upon successful completion of this course, participants will be able to:

- Understand Product Lifecycle Management (PLM) concepts and Siemens Teamcenter X architecture.
- Manage product data, revisions, versions, and engineering documents effectively.
- Create and maintain product structures and Bills of Materials (BOM).
- Configure engineering change management processes and workflow automation.
- Apply lifecycle, configuration, and release management techniques.
- Collaborate efficiently across engineering teams using Teamcenter X workspaces.
- Integrate Teamcenter X with CAD applications and enterprise systems.
- Configure security, user administration, reporting, and analytics.
- Apply industry best practices for successful Teamcenter X implementation and digital product development.

Course Outline

The course comprises **40 hours** of theory and hands-on lab sessions and is divided into **12 chapters**. Each chapter is followed by practical lab exercises to reinforce learning and provide hands-on experience with Siemens Teamcenter X concepts and workflows.

Chapter 1. Product Lifecycle Management Fundamentals

Fundamentals of PLM

- Product lifecycle concepts
- Digital product information
- Business value of PLM
- Cloud PLM overview

Teamcenter Platform Overview

- Platform capabilities
- User workspace
- Navigation techniques
- Data organization principles

Chapter 2. Engineering Data Organization

Managing Engineering Information

- Product records
- Revisions and versions
- Metadata management
- Relationships between objects

Technical Document Control

- Document storage
- Classification methods
- Revision practices
- Access management

Chapter 3. Product Configuration Management

Product Structures

- Assembly hierarchy
- Product configurations
- Structure validation

Bill of Materials Management

- BOM creation
- BOM maintenance
- Multi-level assemblies
- Configuration scenarios

Chapter 4. Engineering Process Management

Engineering Change Control

- Change requests
- Change implementation
- Approval procedures
- Release planning

Workflow Automation

- Business processes
- Task routing
- Notifications
- Workflow monitoring

Chapter 5. Lifecycle Governance

Lifecycle Administration

- Lifecycle stages
- Status transitions
- Release control

Configuration Governance

- Baselines
- Product variants
- Configuration rules

Chapter 6. Engineering Collaboration

Collaborative Engineering

- Shared workspaces
- Team collaboration
- Information exchange

Project Coordination

- Task management
- Communication workflows
- Data sharing strategies

Chapter 7. Enterprise Integration

CAD Connectivity

- CAD data synchronization
- Multi-CAD environments

- Design data exchange

Enterprise Connectivity

- ERP integration concepts
- Information synchronization
- Business system connectivity

Chapter 8. Platform Administration

User and Security Management

- User accounts
- Roles
- Permissions
- Security configuration

Platform Maintenance

- Administrative settings
- Cloud environment management
- System monitoring

Chapter 9. Reporting and Performance Monitoring

Business Reporting

- Engineering reports
- Lifecycle reports
- Change summaries

Operational Analytics

- Dashboards
- Workflow metrics
- Performance indicators

Chapter 10. Deployment Strategy

PLM Implementation

- Deployment planning
- Data governance
- Adoption strategy

Digital Transformation

- Digital thread concepts
- Engineering best practices
- Organizational readiness

Chapter 11. Applied PLM Scenarios

Industry Applications

- Manufacturing workflows
- Engineering collaboration
- Product development scenarios

Practical Case Studies

- Product data management
- Change management
- End-to-end lifecycle workflow

Chapter 12. Practical Workshops

Hands-on Exercises

- Product data creation
- Document organization
- Structure management
- Workflow execution
- Change management
- Administration tasks
- Reporting exercises
- Integrated project