SAP CPI / Integration Suite — Complete Course Content

WC Skills • World Class Skills Institute

Duration	8 Weeks
Target Audience	Integration developers and SAP middleware professionals
Prerequisites	Basic APIs, XML/JSON and SAP process knowledge.

What this document contains

A module-wise training roadmap covering concepts, hands-on labs, project work, assessment checkpoints and interview preparation. The syllabus is designed as a structured course plan for classroom or live-online delivery.

Course Objectives & Learning Outcomes

By the end of this course, learners should be able to explain the core concepts, perform the practical tasks listed in the labs, troubleshoot common scenarios, document their work and complete the capstone with a professional implementation approach.

- Understand the architecture, terminology and end-to-end workflow of the subject.
- Perform guided hands-on exercises using the relevant tools and development/administration environment.
- Apply troubleshooting, testing, documentation and best-practice techniques.
- Build a portfolio-ready capstone demonstrating practical competency.
- Prepare for technical interviews with scenario-based questions and implementation discussions.

Detailed Module-wise Curriculum

Module 1: Integration Suite Foundations

- Cloud Integration architecture
- Artifacts and packages
- Tenants and roles
- Integration patterns
- Landscape strategy

Hands-on Lab: Lab: create an integration design document.

Module 2: iFlows

- Sender/receiver systems
- Adapters
- Content modifier
- Router and splitter
- Exception subprocess

Hands-on Lab: Lab: build an end-to-end file/API iFlow.

Module 3: Message Mapping & Transformation

- Graphical mapping
- Functions
- XML/JSON conversion
- XSLT awareness
- Value mapping

Hands-on Lab: Lab: transform an inbound payload to a target structure.

Module 4: Connectivity & Security

- HTTP/OData/SOAP adapters
- SFTP
- Destinations
- Certificates
- OAuth and basic authentication

Hands-on Lab: Lab: configure a secure API integration.

Module 5: Monitoring & Troubleshooting

- Message monitor
- Trace
- Logs
- Retries
- Error handling and alerts

Hands-on Lab: Lab: diagnose and reprocess a failed message.

Module 6: APIs & Event Integration

- API Management concepts
- Policies
- API proxy lifecycle
- Event-driven patterns
- Integration content catalog

Hands-on Lab: Lab: design an API proxy and policy set.

Module 7: Operations & Transport

- Packages and versioning
- Transport across landscapes
- Externalized parameters
- Security material
- Deployment checklist

Hands-on Lab: Lab: prepare a dev-to-prod deployment runbook.

Module 8: Capstone

- Business scenario
- Mapping and exception handling
- Security
- Monitoring
- Technical documentation

Hands-on Lab: Lab: deliver a complete integration flow.

Practical Delivery Plan

Phase	Focus	Expected Evidence
1	Concept + demonstration	Notes, diagrams and guided exercises
2	Hands-on practice	Working configuration/code and screenshots/logs
3	Troubleshooting	Issue reproduction, diagnosis and resolution notes
4	Mini project	Functional solution with test cases
5	Capstone	End-to-end project, documentation and presentation

Assessment & Certification Readiness

Recommended assessment pattern: module quizzes (20%), practical labs (30%), mini project (20%), capstone (20%) and interview/viva (10%). Completion certificates, placement support and any certification claims should follow the institute's current published policy and the relevant vendor's certification rules.

Capstone Requirements

- Problem statement and scope
- Architecture/process diagram
- Implementation or configuration
- Test cases and results
- Troubleshooting notes
- User/technical documentation
- Final presentation and interview questions

Interview Preparation Topics

Learners should be able to answer architecture questions, explain the difference between key concepts, troubleshoot a real scenario, justify design choices, discuss performance/security considerations and walk through the capstone from requirement to deployment/support.

Recommended Learning Resources

Use official product documentation and current vendor guidance for version-specific commands, configuration steps and certification requirements. Validate training examples in a non-production environment before applying them to customer systems.