

Master Class: Agentic Software Engineering using Claude Code (ASECC)

ID ASECC Price CHF 4,890.—(excl. VAT) Duration 4 days

Who should attend

Software Architects, Developer (All)

Prerequisites

The exercises will be conducted in Python, TypeScript, and C#. Basic knowledge of these programming languages is helpful but not required.

Course Content

Module 1: Claude Code Fundamentals

- Get Started with Claude Code
- Install and Configure Claude Code
- Choose Your Editor
- Write a CLAUDE.md Constitution
- Master Prompting Techniques
- Select the Right Model
- Configure the Permission Model
- Run Parallel Agents with Git Worktrees

Module 2: Claude Code Configure Harness

- Understand the Claude Code Harness
- Build Custom Slash Commands
- Automate Workflows with Hooks
- Connect MCP Servers to the Harness
- Create Reusable Skills
- Package and Distribute Plugins
- Persist Context with Memory
- Checkpoint and Resume Long Sessions
- Delegate Work to Sub-Agents

Module 3: Creating & Managing Skills

- Understand Skills vs Slash Commands
- Create a Skill from Scratch
- Compose Skills into Workflows
- Test and Publish Skills
- Evolve Skills with Metrics

Module 4: Consuming & Designing MCP Tools

- Master the Model Context Protocol
- Build a Custom MCP Server in C#
- Implement and Use MCP Applications

Module 5: Programmable Automation using the Claude Code CLI

- Run Claude Code in Headless Mode
- Parallelize Work with Git Worktrees
- Gate CI Pipelines with Sentinel Tokens
- Enforce Policy Hooks Across Parallel Worktrees
- Build Agents that Loop Until a Verifiable Goal is Met

Module 6: Plan and Decompose for Maximum Agentic Effectiveness

- Enter Plan Mode for Complex Tasks
- Reason Deeply with Extended Thinking and Persist Decisions in STATE.md
- Drive Specs with Spec Kit and BMAD

Module 7: Scale Task Execution with Sub-Agents

- Explore Sub-Agent Architecture and Context Isolation
- Implement a Backend Sub-Agent for .NET
- Configure a Frontend Sub-Agent for Angular
- Configure a QA Agent for Browser Verification
- Unit-Test Your Agent's Performance
- Orchestrate Sub-Agents with Decomposition Patterns

Module 8: Optimizing the Agentic Harness & Continuous Learning

- Optimize the Agentic Harness
- Compress Context with the Caveman Technique
- Build an Autoresearch Loop
- Design Memory Architectures
- Build a Second Brain with Obsidian

Module 9: Deploy Autonomous Action using Managed Agents

- Understand the Managed Agents Mental Model
- Build Your First Managed Agent

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- Add Production Features to Managed Agents
- Add Human-in-the-Loop Controls

Module 10: Security, Hardening & Observability

- Map the Agent Threat Model
- Apply Guardrails and Least Privilege
- Secure Secrets and Credentials
- Trace Agents and Diagnose Failures

Module 11: Build Multi-Agent Pipelines using the Agent SDK

- Understand the Claude Agent SDK
- Call the Claude Agent SDK
- Run Parallel Agents with the SDK

Module 12: Bundling & Distributing Plugins

- Understand Why Plugins Exist
- Inspect Plugin Anatomy
- Convert a .claude/ Config to a Plugin
- Publish Plugins to Marketplaces

Module 13: Agentic DevOps & Automation

- Deploy with the Azure GitHub DevOps Agent
- Deploy to Azure with GitHub Actions
- Automate Deployments with Azure Developer CLI
- Provision Infrastructure with Bicep and Terraform
- Drive the Azure CLI from Claude Code
- Agentic Optimization: Web Vitals and SEO

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Training Centres worldwide



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