Multi-Agent Systems with LangGraph & MCP

Orchestrate agent teams, tool protocols, human-in-the-loop and recovery.

DURATION	FORMAT	LEVEL	LABS
40 hours	Onsite, online or hybrid	Advanced	Cloud sandbox included

About this programme

Advanced programme for engineers building production agent systems: stateful orchestration with LangGraph, multi-agent patterns with CrewAI and AutoGen, tool integration through the Model Context Protocol (MCP), and the guardrails that keep agents reliable.

Who it is for: Senior engineers and ML engineers who have built a single-agent or RAG application

What your team will be able to do

- Model agent workflows as explicit state graphs with checkpoints and retries
- Choose between supervisor, hierarchical and collaborative multi-agent patterns
- Expose enterprise tools and data to agents through MCP servers
- Add human-in-the-loop approvals, memory and recovery from failures
- Trace, evaluate and cost-control agent runs in production

Before you start

- Has built a single-agent or RAG application in Python
- Familiar with LangChain or a similar framework

Course outline

We send the module-by-module outline with your proposal, adapted to your team's tools and goals.

Assessment and certification

How learning is checked

- A short knowledge check on day one and again at the end, so you can see each person's progress
- Graded hands-on labs in every module, reviewed by the trainer
- A final exercise that applies the programme to a problem like your team's own

Certificate and exams

- Participants who complete the programme receive a Cognitive Networks AI certificate of completion.

Formats and cohort size

- Onsite: At your office or a venue you choose, in full days.
- Online, live: Instructor-led over video, usually in half-day sessions so people can keep up with work.
- Hybrid: Some days in a room together, the rest online. Useful when a team works across cities.

Cohort size: 15 to 25 people per trainer. Larger teams run as parallel cohorts on the same outline, so everyone learns the same thing.

Pricing: We quote per cohort, based on duration, format and number of cohorts. There is no per-seat price list: tell us your team and we send a proposal within one business day.

Bring this programme to your team

Request a proposal at cognitivenetworks.ai/contact?programme=multi-agent-systems

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