



LangChain Course

Build production LLM applications — from chains to RAG pipelines and agents.

Certificate Course | A27

Duration: 12 Hours

Level: Intermediate



AMSTERDAM
DATA ACADEMY

WHAT YOU'LL LEARN

- Build multi-step LLM chains using LCEL
- Implement conversation memory patterns
- Create agents with custom tools and APIs
- Build RAG pipelines with document loaders
- Deploy LangChain apps to production
- Debug and evaluate LLM applications



COURSE CONTENT

Module 1 — LangChain Fundamentals

- Core components: models, prompts, chains, and output parsers
- LangChain Expression Language (LCEL) for composable chains

Module 2 — Memory, Agents & Tools

- Conversation memory: buffer, summary, and entity memory
- Building agents with ReAct, custom tools, and API connections

Module 3 — RAG & Production

- Document loaders, text splitters, and vector stores
- End-to-end RAG pipelines with evaluation, caching, and deployment



AMSTERDAM
DATA ACADEMY



AFTER THIS COURSE

You'll be able to build production LLM applications with LangChain, implement RAG and memory systems, create agents with custom tools and APIs, and deploy scalable AI solutions.

OFFICIAL CERTIFICATE

This course leads to an official ADA certificate at NLQF level 6, the nationally recognised qualification framework equivalent to a bachelor's degree. Your certificate proves a verified, professional level of knowledge and skills — valued by employers across the Netherlands.

Ready for your next step?

Book a free study-advice call

amsterdamdataacademy.com/study-advice

+31 85 004 9642