



Applied AI & Data Science Diploma Course

—
ADA's most comprehensive programme — five tracks, one diploma.

Full programme | B11
Level: Advanced
Study load: 624 hours
NLQF level 6 diploma



AMSTERDAM
DATA ACADEMY

WHAT YOU'LL LEARN

- Develop full-stack competencies across analytics, engineering and AI
- Build hands-on experience through real-world projects
- Master Python, SQL, machine learning and deep learning
- Deploy production AI: RAG, LangChain and MLOps
- Understand AI governance, ethics and the EU AI Act
- Gain professional experience through a supervised internship



TARGET AUDIENCE

Who is this for

Career changers, HBO/WO graduates and working professionals who want a complete pathway into data and AI. No prior programming experience required.

Admission

Minimum MBO level 4 or HAVO; basic digital skills; English reading and writing; strong motivation.

Roles after

Data Engineer · Data Scientist · AI Engineer · AI Architect · Data Analyst · Prompt Engineer · AI Researcher

CURRICULUM

The programme runs sequentially: a shared foundation, then five bootcamp tracks, each building on the last and ending with a Final Assignment.

Foundation

A03 Fundamentals of Data & AI · A24 AI Literacy — core concepts, ethics, GDPR and the EU AI Act.

Track 1 — Data & Analytics

A10 Excel Essentials · A04 Data Visualization (Power BI) · A13 Data Storytelling.

Capstone A51 — turn raw data into a dashboard and a substantiated recommendation.

Track 2 — Data Science

A06 Programming with Python · A05 Machine Learning · A16 Deep Learning.

Capstone A52 — a complete project from data preparation to model and insight.

Track 3 — Data Engineering

A25 SQL · A14 Data Fundamentals (Azure) · A15 Fundamentals of a Data Stack (dbt).

Capstone A53 — a working end-to-end data pipeline.



CURRICULUM

Track 4 — Applied AI

A08 Prompt Engineering · A02 Building AI Agents · A28 AI Strategy.
Capstone A54 — an end-to-end applied AI solution (agent or RAG application).

Track 5 — AI Engineering

A26 Retrieval-Augmented Generation (RAG) · A27 LangChain · A17 Building AI Models (Azure).
Capstone A55 — a deployed end-to-end AI engineering project.

Internship & Career Counselling (optional add-on)

A21 — apply everything on a real-world project (5–8 weeks) with 1:1 career coaching, a written report and a stakeholder presentation.

The Vivino case is the consistent real-world context across all five tracks — from analytics dashboards (Track 1) to a production RAG AI sommelier (Track 5).

ASSESSMENT FRAMEWORK



- Assessment is competency-driven and rubric-based (NLQF level 6). Every module is scored out of 300 points, with 165/300 (55%) as the pass threshold.
 - Four-eyes principle. Every module has a teacher (begeleider) who guides and an independent examiner (examinator) who assesses. An independent Examination Committee safeguards quality, reviews exemptions and handles appeals.
 - The full scoring scale, progression rules and resit policy are set out in our examination regulations:
amsterdamdataacademy.com/examination-regulations
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ASSESSMENT FRAMEWORK

- What you'll be assessed on. Five track Final Assignments (A51–A55), practical assignments, case studies and presentations, plus an internship report and stakeholder presentation.
- Diploma requirements. Sufficient ($\geq 165/300$) on all modules and all five Final Assignments, a passed internship and minimum 80% live-session attendance. Distinction (cum laude) for Good on the internship and at least three track Final Assignments.
- Full method, rubrics and resit procedure: amsterdamdataacademy.com/examination-regulations





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AFTER THIS PROGRAMME

You'll graduate as an all-round data & AI professional — fluent across analytics, engineering and applied AI — with capstone projects, real internship experience and a recognised diploma.

OFFICIAL DIPLOMA

On completion you receive the ADA Applied AI & Data Science diploma. The programme has been submitted for NLQF level 6 classification (bachelor equivalent) and, once classified, qualifies for the SLIM employer subsidy. Financing: UWV vouchers, municipality vouchers, TechMeUp 0% loan or instalments.

Ready for your next step?

Book a free study-advice call

amsterdamdataacademy.com/study-advice

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