TECHNICAL LEARNING AND ASSESSMENT DOSSIER

Python for Data Science, Artificial Intelligence and Development – Exam

Price / certificate issuance
50,00 €
VAT excluded

Course code	Minimum duration	Final pass score	Dossier issue
PY_DS_AI_DEV_LA	60 min	70%	29/11/2026

1. Course identity, purpose and scope

The course "Python for Data Science, Artificial Intelligence and Development – Exam" provides an advanced mastery of Python focused on applications in data science, AI, and software development. It covers foundational Python language features, environment management, code quality, and testing, as well as advanced data analysis with libraries like NumPy and pandas, and data visualization tools such as Matplotlib and Seaborn. Core topics include exploratory data analysis, preprocessing, and machine learning with scikit-learn, along with an introduction to neural networks and deep learning frameworks like PyTorch and TensorFlow. The course also addresses practical development skills such as scripting, API management, integrating data from various sources, version control with Git, and deployment and packaging techniques, including an overview of Docker containerization. Designed for learners with prior Python experience aiming to build skills for technical roles in data and AI fields, the course concludes with a 60-minute exam requiring a minimum score of 70% to pass.

This extended technical dossier describes the pathway as published in CIWZ Academy on the issue date. It consolidates purpose, references, learning architecture, module contents, assessment system, passing criteria and certificate conditions. It does not replace the official texts of the standards, laws, guidelines or schemes referenced.

2. Normative, regulatory and technical references

Python fundamentals (syntax, types, data structures, functions, OOP) + environment and dependency management (venv/conda, pip) + code quality (PEP8, testing, logging) + data analysis with NumPy and pandas + data visualization (Matplotlib/Seaborn) + data science: EDA, preprocessing, feature engineering + Machine Learning with scikit-learn (pipelines, training/validation, metrics) + introduction to Deep Learning (PyTorch/TensorFlow, core concepts) + application development and automation (scripts, CLI, APIs) + data integration (files, databases, REST APIs) + version control and collaboration (Git) + deployment and packaging (wheels, Docker overview)

References are used as the learning and assessment framework within the limits of published content and available sources. For professional application, the official and current versions of the referenced documents always prevail.

3. Learning architecture and assessment system

- minimum tracked time: 60 min
- final exam: 30 questions selected from the bank
- passing threshold: 70%
- Direct access to the final assessment under the published rules for the exam-only pathway.
- Exam assembly from the active course bank and scoring against the published pass threshold.
- Recording of the result and, where applicable, request for the final certificate.

4. Official catalogue technical information

Learning Objectives

Provide advanced skills in Python for data science, AI, and software development, from fundamentals to the use of advanced libraries and machine/deep learning techniques.

Skills Acquired

- Effective Python use and environment management
- Data analysis and visualization with NumPy, pandas, Matplotlib, Seaborn
- Machine Learning with scikit-learn
- Introduction to Deep Learning with PyTorch and TensorFlow
- Development of scripts, CLI tools, and APIs
- Data integration from files, databases, and REST APIs
- Version control with Git
- Deployment and packaging, basic Docker knowledge

Target Audience

Professionals and students with basic Python knowledge seeking specialization in data science and AI development.

Prerequisites

Fundamental Python programming skills.

Program

- Python fundamentals and OOP
- Environment and dependency management
- Code quality: PEP8, testing, logging
- Data analysis and visualization
- EDA, preprocessing, feature engineering
- Machine Learning with scikit-learn

- Introduction to Deep Learning
- Application development and automation
- Data integration
- Git and collaboration
- Deployment and packaging

Teaching Methodology

Theoretical lessons mixed with exercises and project work.

Assessment Method

Written exam lasting 60 minutes; minimum passing score 70%.

Duration

60 minutes exam.

Certification

Certificate of exam passing (with possible associated fee).

Expected Outcomes

Ability to utilize Python in real-world data science, AI, and software development projects, ensuring quality and implementing complex solutions.

7. Assessment system, final exam and passing criteria

- The final assessment consists of 30 questions selected from the active course bank. The platform applies an anti-repetition logic for new attempts when the bank size allows it.
- Published passing threshold for the course: 70%.
- Questions are intended to assess not only recall but also interpretation, application, evidence selection, scenario assessment and quality of decision-making, depending on the subject matter.

8. Tracking, learning continuity and session integrity

- Path status, completed modules and recorded time are managed server-side when the course uses the Academy learning mode.
- The platform allows the pathway to resume from the recorded point and retains the results of required checks.
- Assessment sessions may be subject to the integrity and proctoring controls enabled by the platform and described in the applicable usage rules.
- Technical and integrity events support assessment and do not replace professional judgement where human review is required.

9. Certificate, use and limitations

The CIWZ certificate, where provided by the pathway and requested after passing, records the result achieved in the stated CIWZ pathway or assessment. It does not automatically replace personnel certification, professional registration, statutory licence, legal qualification or credentials issued by third-party bodies where such requirements are imposed by the applicable scheme.

10. Commercial and tax conditions

- Price / certificate issuance: 50,00 € VAT excluded.
- UAE VAT is applied to UAE customers according to billing data and the applicable tax rules.
- Any specific commercial terms, agreements or corporate orders override the public price only when formally accepted by Certificato IWZ FZCO.

11. Dossier document control

- Document automatically generated by CIWZ Academy from the course data published at the time of the request.
- Course code: PY_DS_AI_DEV_LA
- Document language: EN
- Generation date: 29/11/2026

- For normative and professional application, the current official sources and any applicable procedures/schemes prevail.