TECHNICAL LEARNING AND ASSESSMENT DOSSIER

Artificial Intelligence (AI) and Machine Learning – Exam

Price / certificate issuance
50,00 €
VAT excluded

Course code	Minimum duration	Final pass score	Dossier issue
AI_ML_LA	60 min	70%	28/11/2026

1. Course identity, purpose and scope

The course "Artificial Intelligence (AI) and Machine Learning – Exam" provides an in-depth overview of key concepts and methodologies in AI and machine learning. Starting from fundamental learning paradigms such as supervised, unsupervised, semi-supervised, and reinforcement learning, the course covers data preparation including cleaning, feature engineering, and normalization. It examines major machine learning algorithms like regression, classification, clustering, decision trees, ensembles, and SVMs, and explains training and validation pipelines including cross-validation and evaluation metrics (accuracy, precision/recall, F1, AUC, RMSE). Advanced topics such as overfitting, underfitting, regularization, interpretability using tools like SHAP and LIME, and an introduction to neural networks and deep learning are also included. A section is dedicated to MLOps, focusing on data/model versioning and monitoring. Finally, the course addresses ethics, bias, privacy, and security issues related to AI/ML models, preparing participants to successfully pass a professional-level exam.

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

Core concepts of AI and Machine Learning + learning paradigms (supervised, unsupervised, semi-supervised, reinforcement) + data preparation (cleaning, feature engineering, normalization) + main ML algorithms (regression, classification, clustering, trees/ensembles, SVM) + training/validation pipelines (train/test, cross-validation) + evaluation metrics (accuracy, precision/recall, F1, AUC, RMSE) + overfitting/underfitting and regularization + interpretability and explainability (feature importance, SHAP/LIME overview) + introduction to neural networks and Deep Learning (core concepts) + basic MLOps (data/model versioning, monitoring) + ethics, bias, privacy and security in models

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
- active final-exam bank: 200 questions
- 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

- Understand fundamental AI and machine learning principles.
- Apply data preparation and feature engineering techniques.
- Use and evaluate main ML algorithms.
- Implement training and validation pipelines.
- Manage overfitting, underfitting, and regularization issues.
- Introduce interpretability concepts and deep learning models.
- Apply basic MLOps principles.
- Recognize ethical and security implications.

Skills Acquired

- Designing and evaluating AI/ML models.
- Data cleaning and preparation.
- Utilizing model interpretability techniques.
- Understanding MLOps practices.
- Critical analysis of bias and privacy concerns.

Target Audience

- IT professionals and data scientists in training.
- Graduates and technicians interested in AI.
- Candidates preparing for AI/ML certification.

Prerequisites

- Basic knowledge of statistics and programming.
- Familiarity with basic computer science concepts.

Program

- AI fundamentals and learning paradigms.
- Data preparation: cleaning, feature engineering.
- Core ML algorithms: regression, classification, clustering, etc.
- Training, validation, evaluation metrics.
- Overfitting, underfitting, regularization.
- Interpretability (feature importance, SHAP, LIME).
- Introduction to neural networks and deep learning.
- MLOps: versioning, monitoring.
- Ethics, bias, privacy, security.

Teaching Methodology

- Theoretical lessons and case study analysis.
- Practical exercises and exam simulations.

Assessment Method

- 60-minute exam with multiple-choice questions and practical cases.
- Pass mark: 70% correct answers.

Duration

- 60 minutes exam.

Certification

- Certificate issued upon passing, fee: 50.00 euros.

Expected Outcomes

- Ability to design and evaluate ML models in real scenarios.
- Awareness of ethical and operational issues in AI deployment.

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.
- Final question-bank size detected at generation time: 200 active questions.
- 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: AI_ML_LA
- Document language: EN

- Generation date: 28/11/2026
- For normative and professional application, the current official sources and any applicable procedures/schemes prevail.