

Machine Learning (ML) Basics —formula

Level: Intermediate

Duration: 6 weeks (12 sessions × 40 min each ≈ 8 hours)

Audience: Learners with Python and basic data analysis knowledge

Course Goal: Introduce students to fundamental machine learning concepts, models, and evaluation techniques, with hands-on practice in building simple ML models.

Course Fees:

- **Self-paced:** \$30–70
- **Instructor-led (12 sessions):** \$120–250

Learning Objectives

By the end of this course, students will be able to:

- Understand the difference between **supervised and unsupervised learning**.
- Build basic **regression and classification models** using Python.
- Preprocess data and select features effectively.
- Evaluate models using **accuracy, RMSE, confusion matrices**, and other metrics.
- Apply learned techniques in a **mini-project** to solve a simple ML problem.

Weekly Breakdown:

- Week 1: Introduction to ML, types of problems
- Week 2: Data preprocessing and feature selection
- Week 3: Linear regression
- Week 4: Logistic regression & classification
- Week 5: Decision trees & evaluation metrics
- Week 6: Mini-project: Build a simple ML model

End-of-Course Deliverables

- ✓ Preprocessed dataset
- ✓ ML model code with predictions
- ✓ Evaluation metrics and short report