

ML Project/Data science

ECTS : 5

Volume horaire : 36

Description du contenu de l'enseignement :

Project: work by groups of two, build or use an existing (real) dataset, process the dataset by using the methods presented in the courses.

Implement the different methods presented in the Machine Learning course by using the libraries NumPy, Pandas and scikit-learn on real or synthetic data:

- k-nearest neighbors (k-NNs);
- Linear/Quadratic Discriminant Analysis (LDA/QDA);
- Logistic regression;
- Clustering: k-means, agglomerative clustering;
- Decision tree learning, random forests;
- Neural networks.

Compétence à acquérir :

Implement common Machine Learning techniques in Python (with the help of the libraries NumPy, Pandas and scikit learn).

Mode de contrôle des connaissances :

Graded tutorial (TP noté) + Project.

Document susceptible de mise à jour - 02/04/2026

Université Paris Dauphine - PSL - Place du Maréchal de Lattre de Tassigny - 75775 PARIS Cedex 16