

AI for chemistry



En bref

- **Langue(s) d'enseignement:** English
- **Forme d'enseignement :** Cours magistral & Travaux pratiques
- **Ouvert aux étudiants en échange:** Non

- Neural Networks and Deep Learning (dense to convolutional, image analysis...)
- Graph Neural Networks (GNN): Describe a molecule as a social network!
- Interpretability, Robustness and Ethics.

Présentation

DESCRIPTION

This course positions itself in the following of the Chemistry and Data Sciences lectures (Semester 1 -- M1). It aims to familiarize students with the fundamental principles of artificial intelligence (AI) and its specific application to chemistry. It explores basic AI concepts, focusing on machine learning (supervised and unsupervised) (lectures 6h). All the concepts covered will be illustrated through practical sessions primarily applying to various fields of chemistry (practical sessions 18h). The program includes:

- Introduction to AI, Data Types and their Representation
- Supervised AI Methods (Regressions, Random Forest, SVM...)
- Unsupervised Learning and Clustering (k-means)

HEURES D'ENSEIGNEMENT

AI for chemistry	Cours Magistral	6h
AI for chemistry	Travaux Pratiques	18h

PRÉ-REQUIS NÉCESSAIRES

M1S1 Chemistry and data science

En bref

Pour en savoir plus, rendez-vous sur > u-paris.fr/choisir-sa-formation

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