COURSE DETAIL

INTRODUCTION TO MACHINE LEARNING IN MATERIAL SCIENCE
Country China
Host Institution Fudan University
Program(s) Fudan University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Materials Science Computer Science
UCEAP Course Number 145
UCEAP Course Suffix
UCEAP Official Title INTRODUCTION TO MACHINE LEARNING IN MATERIAL SCIENCE
UCEAP Transcript Title MACHINE LEARNING
UCEAP Quarter Units 3.00
UCEAP Semester Units 2.00

Course Description

This course will briefly summarize the fundamental knowledge of linear algebra, statistical probability and distribution theory, python programming language and databases. In addition, this course will introduce the main workflow and concepts in machine learning, including supervised learning, unsupervised learning, regression, classification and some mainstream algorithms. Importantly, some representative examples of machine learning in material science will be introduced. Meanwhile, the importance of quantum chemistry and molecular dynamics simulations in machine learning will be emphasized at the end.

Language(s) of Instruction
English

Host Institution Course Number
GEEC20028

Host Institution Course Title
INTRODUCTION TO MACHINE LEARNING IN MATERIAL SCIENCE

Host Institution Course Details
https://ogp.fudan.edu.cn/16092/list.htm

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed
2025-2026

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