COURSE DETAIL

MACHINE LEARNING
Country Korea, South
Host Institution Yonsei University
Program(s) Yonsei University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 104
UCEAP Course Suffix
UCEAP Official Title MACHINE LEARNING
UCEAP Transcript Title MACHINE LEARNING
UCEAP Quarter Units 4.50
UCEAP Semester Units 3.00

Course Description

This course provides an overview of machine learning, a core technology of artificial intelligence. It begins with fundamental mathematical concepts related to linear algebra and probability theory, and then introduces key machine learning techniques, including supervised learning, unsupervised learning, and reinforcement learning.

The course covers fundamental concepts and principles of machine learning algorithms, analysis of real-world data using machine learning techniques and programming tools, and development of machine learning solutions for real-world problems in various domains.

Topics include Parametric Density Estimation, Linear Regression, Classification and Logistic Regression, Generative Learning Algorithm, Deep Learning and Neural Networks, Generalization and Regularization, Clustering and K-means Algorithm, Dimensionality Reduction, Generative Models, and Markov Decision Process and Reinforcement Learning.

Prerequisites: Probability, Linear Algebra, Python

Language(s) of Instruction
English

Host Institution Course Number
CAS3120,AAI3120,CSI4120

Host Institution Course Title
MACHINE LEARNING

Host Institution Course Details
https://underwood1.yonsei.ac.kr/

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed
2025-2026

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