האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

Machine Learning - 76691

Last update 13-02-2025

HU Credits: 3

Degree/Cycle: 2nd degree (Master)

Responsible Department: Programming Instruction Unit

Academic year: 0

Semester: 2nd Semester

Teaching Languages: Hebrew

Campus: E. Safra

Course/Module Coordinator: royi zidon

Coordinator Email: Royi.Zidon@mail.huji.ac.il

Coordinator Office Hours:

Teaching Staff:

Dr. royi zidon

Course/Module description:

The course will cover theoretical basics with practical applications of broad range of machine learning concepts and methods

Course/Module aims:

Developing practical machine learning and data science skills with python.

Learning outcomes - On successful completion of this module, students should be able to:

- *Understanding the principal models used in machine learning*
- *Understanding the strengths and weakness of each model.*
- *Determine which model or models would be most appropriate in different problems.*
- *Apply the principal models in python*

Attendance requirements(%):

Teaching arrangement and method of instruction:

Course/Module Content:

Python, visualization, feature extraction,supervised and unsupervised learning, classification, clustering, regressions, genetic algorithm, introduction to deep learning

Required Reading:

None

Additional Reading Material:

Introduction to Machine Learning, Third Edition , Ethem Alpaydin, MIT Press, 2014

Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow: Concepts, Tools, and Techniques to Build Intelligent Systems 2nd Edition , Aurélien Géron

Grading Scheme:

Written Exam % 90

Submission assignments during the semester: Exercises / Essays / Audits / Reports / Forum / Simulation / others 10 %

Additional information:

Open to undergraduate students that passed a course in python