האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

# *The Hebrew University of Jerusalem*

## *Syllabus*

# *Adv. computational learning and data analysis - 52025*

*Last update 15-10-2024*

*HU Credits: 3*

*Degree/Cycle: 2nd degree (Master)*

*Responsible Department: Statistics*

*Academic year: 0*

*Semester: 1st Semester*

*Teaching Languages: Hebrew*

*Campus: Mt. Scopus*

*Course/Module Coordinator: Yuval Benjamini*

*Coordinator Email: yuval.benjamini@mail.huji.ac.il*

*Coordinator Office Hours: After Class*

*Teaching Staff:*

*Course/Module description:*

*The first part of the course will discuss Deep Learning – Theory and Practices: we will survey different architectures of deep nets.*
*Depending on time (in this short semester) we will discuss broader topics relating to prediction models such as explainability and interepretation, prediction under non-iid sampling, experiments and uncertainty, and ethics.*

*Course/Module aims:*

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

*Students will be able to implement deep learning based algorithms.*
*They will acquire basic skills in working with images, texts and sounds as input data.*
*Furthermore, the students will learn approaches to explaining, evaluating and comparing models.*

*Attendance requirements(%):*

*50%*

*Teaching arrangement and method of instruction: The course will be in the classroom with classes recorded*

*Course/Module Content:*

*A full list will be given at the begining of the semestrer*

*Required Reading:*

*TBA*

*Additional Reading Material:*

*Grading Scheme:*

*Additional information:*