



# *The Hebrew University of Jerusalem*

## *Syllabus*

### *Between Artificial and Human Intelligence - 6178*

*Last update 26-09-2023*

*HU Credits: 3*

*Degree/Cycle: 1st degree (Bachelor)*

*Responsible Department: Cognitive and Brain Sciences*

*Academic year: 0*

*Semester: 1st Semester*

*Teaching Languages: Hebrew*

*Campus: Mt. Scopus*

*Course/Module Coordinator: Dr. Ariel Goldstein*

*Coordinator Email: [ariel.y.goldstein@mail.huji.ac.il](mailto:ariel.y.goldstein@mail.huji.ac.il)*

*Coordinator Office Hours:*

*Teaching Staff:*

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Dr. Ariel Goldstien,  
Ms. daria lioubashevsky

Course/Module description:

Deep learning offers a new and sometimes revolutionary perspective on a number of fundamental issues in cognitive brain science. In this course, we will address cognitive issues influenced by developments in the field of deep learning. The topics we will cover include: language acquisition, representations, high cognition, and multi-modal integration. The course will be composed of: frontal lectures - covering relevant concepts from the cognitive and computational literature. Computational workshops - where the students will implement a Python project demonstrating the developments in deep learning and their impact on cognitive concepts. Discussion meetings (mandatory attendance) on relevant articles (participants will be asked to read the articles before the class and submit a short summary at the beginning of the class). Assessments will be done via an end-of-semester assignment, in which the students will be asked to implement a code related to a cognitive issue (and submission of the summaries before the discussion classes). Required background: course 6119 or alternatively another machine learning course (for example, 67577 or 76915). Feel free to contact the lecturer on the matter.

Course/Module aims:

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

Upon completion of the course, the students will undertake a computational project describing a cognitive concept through developments in the field of deep learning.

Attendance requirements(%):

Teaching arrangement and method of instruction:

Course/Module Content:

Language acquisition, representations, high cognition, and multi-modal integration.

Required Reading:

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*The relevant papers will be published during the semester*

*Additional Reading Material:*

*Grading Scheme:*

*Essay / Project / Final Assignment / Home Exam / Referat 100 %*

*Additional information:*