

# *The Hebrew University of Jerusalem*

## *Syllabus*

### **INTRODUCTION TO CLIMATE - 68105**

*Last update 28-08-2024*

HU Credits: 4

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Earth Sciences

Academic year: 0

Semester: 1st Semester

Teaching Languages: Hebrew

Campus: E. Safra

Course/Module Coordinator: Prof. Alon Angert

Coordinator Email: [alon.angert@huji.ac.il](mailto:alon.angert@huji.ac.il)

Coordinator Office Hours: after the class

Teaching Staff:

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Prof. Alon Angert,  
Mr. Ido Borochofsky,  
Mr. Efraim Bril

Course/Module description:

*Basic intro to atmospheric sciences and climate (both global and in Israel)*

Course/Module aims:

*Understanding the basic structure of the atmosphere and climate, including the physical processes that control them.*

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

*The ability to calculate geostrophic winds under simple conditions, hydrostatic pressure and vertical temperature profiles. Understanding the various factors that induce changes in temperature, humidity, precipitation and winds in the atmosphere.*

Attendance requirements(%):  
100

*Teaching arrangement and method of instruction: frontal lectures + homework assignments*

Course/Module Content:

*Atmosphere structure  
radiation budget  
greenhouse effect  
seasons  
precipitation formation  
humidity  
stability  
clouds  
forces and wind  
global climate  
El ninio  
climate change  
global warming  
climate in Israel*

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Required Reading:

1. C. D. Ahrens; *Meteorology Today*; Editions: 7th/8th/9th/10th
2. יואב יאיר וברוך זיו: מבוא למטאורולוגיה, הוצאת האוניברסיטה הפתוחה

Additional Reading Material:

Grading Scheme:

Written / Oral / Practical Exam 85 %  
Submission assignments during the semester: Exercises / Essays / Audits / Reports  
/ Forum / Simulation / others 15 %

Additional information:

students must hand in at least 75% of the homework assignments.