

The Hebrew University of Jerusalem

Syllabus

PYTHON 1 - 71250

Last update 26-08-2021

HU Credits: 3

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: agro informatics

Academic year: 0

Semester: 1st and/or 2nd Semester

Teaching Languages: Hebrew

Campus: Rehovot

Course/Module Coordinator: Aleks Danov

Coordinator Email: aleks.danov@gmail.com

Coordinator Office Hours:

Teaching Staff:

Ms. Aleks Danov,
Mr. David Zlotkin

Course/Module description:

Students will acquire theoretical and practical knowledge in python programming language and develop an ability to solve complex problems from different fields using python programming language.

Course/Module aims:

Introduce basic concepts from programming world, develop iterative thinking and ability to formulate programming solution and it's python implementation

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

- By the end of the course students will
- identify problems that have programming solutions
 - express programming solution using python programming language

Attendance requirements(%):
no

Teaching arrangement and method of instruction: in class or in zoom

Course/Module Content:

Basic concepts
Idle and Spyder environment
Python Interpreter
Scripting and Debugging
Running programs
Variables, statements, expressions,
built-in functions
Input/Output,
Strings, string functions
Program Flow:
Branching and decision making
Boolean expressions,
The if statement
Repetitions, Loops: for and while.
Defining Functions
Data Containers: sequences ,lists, tuples, dictionaries, sets

Working with text files
List Comprehension
Numpy, Pandas, matplotlib

Required Reading:
will appear in moodle

Additional Reading Material:

Course/Module evaluation:

End of year written/oral examination 90 %

Presentation 0 %

Participation in Tutorials 0 %

Project work 10 %

Assignments 0 %

Reports 0 %

Research project 0 %

Quizzes 0 %

Other 0 %

Additional information:

- The final grade is composed of the following components: Final exam, exercises, tirgul and

“additional” exercises weighted as follows: Exam (80-90%), Exercises (10%), “additional”

exercises (0-10% magen) Tirgul assignments (0-5 points bonus).

- Exercises: Must submit 80% for taking exam permission

For example: Uri did 80% hw with average grade 95. He also submitted 3 of 12 tirgul

assignments with average grade 80. And he also did the additional ex. (80%) with average grade of 100.

His grade will be calculated by following:

Grade $\&eq; 0.82 * \text{exam_grade} + 0.1*95 + 3/12*0.8*5 + 0.08 * 100$