



# *The Hebrew University of Jerusalem*

## *Syllabus*

### *PYTHON FOR EARTH SCIENCES - 76634*

*Last update 18-08-2019*

*HU Credits: 2*

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

*Responsible Department: Programming Instruction Unit*

*Academic year: 2020*

*Semester: 1st Semester*

*Teaching Languages: Hebrew*

*Campus: E. Safra*

*Course/Module Coordinator: Hilla Moshieff*

*Coordinator Email: [Hilamc2@gmail.com](mailto:Hilamc2@gmail.com)*

*Coordinator Office Hours: By appointment*

*Teaching Staff:*

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Ms. Hila Moshieff

Course/Module description:

Understanding computer programming, learning to program and solve problems using python.

Course/Module aims:

Presenting the computing principles, learning to program in Python.

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

Understand computing principles and program in Python

Attendance requirements(%):

none

Teaching arrangement and method of instruction: Frontal lectures in a computer lab, weekly programming assignments

Course/Module Content:

Python Interpreter  
Variables, statements, expressions, built-in functions  
Input/Output, using files  
Program execution, from a file, interpreter, compiler  
Strings, string functions  
Branching and decisions, Boolean expressions, if statement  
Defining Functions  
Data Containers, lists, tuples, dictionaries, sets  
Nested Data structures, Repetitions.

Required Reading:

none

Additional Reading Material:

Recommended: Google python course : <https://developers.google.com/edu/python/>

Python official documentation:

<http://www.python.org/doc/>

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<http://interactivepython.org/courselib/static/thinkcspy/index.html>  
<http://cscircles.cemc.uwaterloo.ca/>  
<http://www.greenteapress.com/thinkpython/thinkpython.pdf>  
[http://en.wikibooks.org/wiki/Think\\_Python](http://en.wikibooks.org/wiki/Think_Python)  
[http://files.swaroopch.com/python/byteofpython\\_120.pdf](http://files.swaroopch.com/python/byteofpython_120.pdf)  
<http://www.itmaybeahack.com/book/python-2.6/html/index.html>  
<http://learnpythonthehardway.org/book/>  
<http://pymbook.readthedocs.org/en/latest/>

Course/Module evaluation:

End of year written/oral examination 100 %  
Presentation 0 %  
Participation in Tutorials 0 %  
Project work 0 %  
Assignments 0 %  
Reports 0 %  
Research project 0 %  
Quizzes 0 %  
Other 0 %

Additional information:

The final grade will be determined by the student's test score at the end of the course. To take the test, the students must submit, on time, at least 8 of the exercises that will be given during the course