

REQUIRMENTS: LAPTOP, INSTALLED SOFTWARE, INTERNET CONNECTION

***PROPOSED OUTCOMES & SCHEDULE FOR +-80 HOURS: PYTHON**

***PLEASE NOTE: SCHEDULE, TIMES, DATES, HOURS, ORDER OF LEARNING AND OUTCOMES CAN CHANGE**

Lesson	TOPIC - SUBJECT	PRACTICAL EXAMPLES	HOURS
1	Understand OOP - Object Orientated Programming Using the Interpreter. Understand classes coupled with Objects.	*PRACTICAL EXAMPLE	2 HOURS
2	Python Scripts on UNIX/Windows	*PRACTICAL EXAMPLE	2 HOURS
3	Strings, Different Literals, Math Operators and regular expressions	*PRACTICAL EXAMPLE	2 HOURS
4	Using modules and patterns	*PRACTICAL EXAMPLE	2 HOURS
5	Datatypes together with operators. Variable declaration including initialization.	*PRACTICAL EXAMPLE	2 HOURS
6,7	Methods, functions coupled with sequential code. Decision making: If statements not to mention switch cases.	*PRACTICAL EXAMPLE	4 HOURS
8,9	Loops, namely a do while, for loop and while loop.	*PRACTICAL EXAMPLE	4 HOURS
10	Commenting, refracting code and naming standards.	*PRACTICAL EXAMPLE	2 HOURS



11,12,13	IDE's (PyCharm), Python GUI Programming With Tkinter.	*PRACTICAL EXAMPLE	6 HOURS
14	Exception handling (try, except)	*PRACTICAL EXAMPLE	2 HOURS
15,16	IO: python input.	*PRACTICAL EXAMPLE	4 HOURS
17,18,19	Understand inheritance, abstract classes & inner classes	*PRACTICAL EXAMPLE	8 HOURS
20	Polyphorism & method overriding & overloading.	*PRACTICAL EXAMPLE	2 HOURS
21,22	Encapsulation.	*PRACTICAL EXAMPLE	4 HOURS
23,24	Delegates & event handling.	*PRACTICAL EXAMPLE	4 HOURS
25,26	Tasks, multi threading & threads.	*PRACTICAL EXAMPLE	6 HOURS
27,28	Encryption and security standards. REVISION	*PRACTICAL EXAMPLE	4 HOURS
29,30	Arraylists and dictionary lists.	*PRACTICAL EXAMPLE	4 HOURS
31,32,33,34	Learn sql queries and database connections. CGI programming. Databases with Python.	*PRACTICAL EXAMPLE	8 HOURS
35,36,37,38,39	PSEUDO CODE, FLOWCHARTS, DOCUMENTATION REVISION AND PROJECT/TEST	TBA	8 HOURS

*LECTURE DECIDES ON APPROPRIATE EXAMPLE/S

*COURSEWARE SHARED VIA GOOGLE DRIVE IS NOT MANDATORY TO USE BY LECTURER, FOR STUDENT FOR ADDITIONAL EXERCISES AND SELF STUDY AND REFERENCE

