Book plan: Introduction to Python

Section	Subject	Content
	Part 1 — Basic Notions	
Introduction	To programmming	
	To Python	
First program	Print	*Explanation of the syllabus examples*
	Comments	
If statement	Logical operators	
	Statements	
	Control flow "if"	
Variables	Types	Keyword "type()"
	Variables	Math exercises
Errors & Exceptions	Synthaxe	"try" & "except" On "/0" or addition of an "int" to a "str"
Data Representation	Strings	Index, slices, operators + pattern-matching
	Lists	
	Tuples	
	Dictionaries	
	Recursive data structures	Matrix
Loops	For loop	
	Iterators	
	List comprehensions	
	While loop	
Files	How to open	"with" statement, close function
	Encoding	
	Write	
	Read	
	Part 2 — Functional Programming	
Definitions	Functions	"def"
	Parameters	optional or not, scope
Modules	Reuse functions	Names, docstrings(PEP)
	Import	
	Built-ins	
Advanced	Recursion	Terminal
	Higher order	Decorators
	Lambda	
	Tests unitaires	

Part 3 — Objects		
Introduction	Objects	"class"
	Class	"__init__" & "__str__"
	Instances	
Characteristics	Privacy	Properties
	Static	Meths (static,) class, instance
		Vars too
Advanced	Polymorphism	
	Inheritance	"super"

Part 4 — Advanced matters		
Data structures	Linked lists	
	Stacks	
	Queues	
Useful adds	RegExp	
	Parallel programming	Threads
	...	
Web	(Django ?)	

Appendices		
Installation	Python	Basic
		IDE
Best practices	Programming	
	Python	PEP
Cheat sheets		
How to use VC	Introd	
	System	(Git ?)
	Best practices	
...		