

FPRO 2018/2019

Master in Informatics and Computing Engineering

Programming Fundamentals

Instance: 2018/2019

Programming Fundamentals (Fundamentos da Programação)

The Unit aim at giving the student the ability to create algorithms, and to use a programming language to implement, test, and debug algorithms to solve simple problems.

"Students are responsible for anything that transpires during a class. Therefore if you're not in a class, you should get notes from someone else (not the instructor)". David Maier

General Information

- Course Unit: [Fact sheet \(Ficha da UC\)](#) | [Contents \(Plano\)](#)
- SIGARRA (MIEIC): [English](#) | [Português](#) | [Summaries](#) | [Students](#) | [Photos](#) | [Classes](#) | [Schedule](#) | [Tests \(PE, TE\)](#)
- Coordinator: [João Correia Lopes](#)
- Attendance hours: Monday, 17:00 ~18:00 [B313](#) and Friday, 16:00 ~ 18:00, [B203](#)

Course Materials

- Activities, grades & forums: [Moodle](#)
- Learn Python and test and see gradings: [FPROplay](#) [FPROtest](#)
- Materials: [Directory with \(useful\) resources](#)
- Rules/FAQ: [FPRO's by-laws](#)

Plan

Week	Week Day	Lecture topics (teórica)	Recitation topics (prática)
1	17/09/2018	<i>Semana Projeto FEUP</i>	
2	24/09/2018	Introduction, Algorithms and Programs, Python [Class]	Using Spyder in Linux [Class]
		Simple Python Data [Class]	
3	01/10/2018	Program Flow with Turtles [Class]	Simple data [Class]
		Conditionals [Class]	

Week	Week Day	Lecture topics (teórica)	Recitation topics (prática)
4	08/10/2018	Iteration [Class]	Program Flow with Turtles [Class]
		Modules, Help, Tracing, Debugging, Tips [Class]	
5	15/10/2018	Functions [Class]	Conditionals and iteration [Class]
		Fruitful functions [Class]	
6	22/10/2018	Testing, main, global variables, tips & tricks [Class]	Functions [Class]
		Strings [Class]	
7	29/10/2018	<i>Semana FEUP</i>	
8	05/11/2018	Tuples [Class]	Strings [Class]
		Lists [Class]	
9	12/11/2018	Working with lists [Class]	Tuples [Class]
		Dictionaries [Class]	
10	19/11/2018	List Algorithms [Class]	Lists [Class]
		Analysis of Algorithms [Class]	
11	26/11/2018	Recursion [Class]	Dictionaries [Class]
		More recursion [Class]	
12	03/12/2018	Functional programming with collections [Class]	Recursion [Class]
		Effect-free programming style [Class]	
13	10/12/2018	Files [Class]	Functional programming with collections [Class]
		Modules [Class]	
14	17/12/2018	Exceptions [Class]	Files [Class]
		Debugging [Class]	
15	24/12/2018	<i>Férias do Natal</i>	
16	31/12/2018	<i>Férias do Natal</i>	
17	07/01/2019	Applications to Web Develop [Class]	Exceptions [Class]
		Applications to Deep Learning [Class]	

Recent changes

— J. Correia Lopes

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Last update: **20/11/2018 18:23**

