

FPRO 2020/2021

Master in Informatics and Computing Engineering
Programming Fundamentals
Instance: 2020/2021

Programming Fundamentals (Fundamentos da Programação)

- > The lectures will be online using Zoom video conferencing platform. Check [Moodle for more info](#).
- > The practical work is accessible at <https://fpro.fe.up.pt>

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.

General Information

- Course Unit: [Fact sheet \(Ficha da UC\)](#) | [Contents \(Plano\)](#)
- SIGARRA (MIEIC): [English \(Português\)](#) | [Summaries](#) | [Students](#) | [Classes](#) | [Schedule](#) | [Tests \(PE, TE\)](#)
- Coordinator: [João Correia Lopes](#)
- Attendance: every day of the week at the [Clinic \(HELP\)](#)

Course Materials

- Landing page (inside the VPN): [FPROweb \(Play & Test\)](#)
- Materials: [Lectures](#) | [Work sheets](#) | [Notebooks](#) | [GitHub public repository](#) | [Directory with external \(useful\) resources](#)
- Activities, grades & announcements: [Moodle](#)
- Rules/FAQ: [FPRO's by-laws](#)

Plan

Week	Week Date	Study	Practice	Assess
1	05/10/2020	<i>FEUP Project Week/Semana Projeto FEUP</i>		
2	12/10/2020	Introduction, Algorithms and Programs, Python [LE01]	Using Spyder, Moodle, Play, Test [RE01]	
		Variables, expressions and statements [LE02]		
3	19/10/2020	Program flow, conditionals [LE03]	Simple data [RE02]	
		Iteration [LE04]		

Week	Week Date	Study	Practice	Assess
4	26/10/2020	Functions [LE05] Fruitful functions [LE06]	Program flow, conditionals and iteration [RE03]	
5	02/11/2020	Strings [LE07] Tuples [LE08]	Functions [RE04]	[PE01]
6	09/11/2020	<i>FEUP Week/Semana FEUP</i>		
7	16/11/2020	Lists [LE09] Working with lists [LE10]	Strings & Tuples [RE05]	
8	23/11/2020	Dictionaries [LE11] Sets [LE12]	Lists [RE06]	
9	30/11/2020	Recursion [LE13] More recursion [LE14]	Dictionaries & Sets [RE07]	[PE02]
10	07/12/2020	Functional programming with collections [LE15] Comprehensions [LE16]	Recursion [RE08]	
11	14/12/2020	Higher-order functions [LE17] Effect-free programming style [LE18]	Functional programming with collections [RE09]	
12	21/12/2020	<i>Christmas vacation/Férias do Natal</i>		
13	28/12/2020	<i>Christmas vacation/Férias do Natal</i>		
14	04/01/2021	List algorithms [LE19] Analysis of algorithms [LE20]	Effect-free programming [RE10]	[PE03]
15	11/01/2021	Modules [LE21] Program development [LE22]	Divide-and-Conquer [RE11]	
16	18/01/2021	Files [LE23] Exceptions [LE24]	Problem solving [RE12]	
17	25/01/2021			[PE04]

Recent changes

— J. Correia Lopes

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Permanent link:

<https://web.fe.up.pt/~jlopes/doku.php/teach/fpro/index>

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