UNIVERSIDADE LUSÍADA
LISBOA

Course Unit Program
Complements of Programming

Academic Year 2023/2024

1. Organic Unit

Faculty of Business and Economic Sciences

2. Course

Computer Engineering

3. Cycle

1st

4. Course Unit

Complements of Programming (L9013)

5. Scientific Area

6. Curricular Year

2nd

7. Type of Curricular Unit / Semester

1st Semester

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8. Class type and workload (work time)

Theoretical classes:	
Practical classes:	
Theoretical-Practical Classes	30,00
Tutorial Guidance:	20,00

9. ECTS Credits

6,00

10. Scientific Area Coordinator

11. Regent

Prof. Doutor PAULO JORGE GONÇALVES PINTO

12. Assistants

13. Teaching Language

Portuguese

14. General Objectives

1. Introduce the functional and logical paradigms
2. Know programming models and techniques that have not yet been covered in previous programming disciplines.

15. Specific Objectives

1.1. Abstract modeling of classes
1.2. generic types
2.1. Interfaces.
2.2. Abstract classes.
2.3. Web API
2.4. WEB API Operations

16. Skills to be acquired

1. Knowledge of generic and abstract models
2. Knowledge of functional and logic programming paradigms.
3. Knowing how to define web API using programming languages.

17. Teaching Methodology

1. Theoretical classes approach the subjects with specific notes, with practical examples and bibliographical references.
2. Practical classes are dedicated to the practice of functional and logical paradigms using the C# language.

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18. Course Unit Program

I. Abstractions
1. Characterization of abstract models and generic data types
2. Definition of abstract classes and their implementations

II Web API
1. Web API Definition
2. Operations with Web API
3. Routes of Operations

19. Assessment Methods

Continuous Assessment (AC) follows the assessment regulations of Universidade Lusíada de Lisboa, with emphasis on the following mandatory components:

1. Two Practical Assessment Points.
2. Work to be developed by students in groups

20. Didactic Resources

Computers in hands-on classes with the latest version of Visual Studio

21. Sustainability Objectives

4. Quality Education
5. Gender Equality
9. Industry, Innovation and Infrastructure
11. Sustainable Cities and Communities

22. Keywords

generic types
abstract classes
Web API

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23. Main Bibliography

Author(s):	Damon McGill		
Title:	Interfaces and Abstract Classes Using C#: Object Oriented Programming		
Edition:	--	Year:	2015
Local:	Amazon		
Publisher:	Kindle Books		

Author(s):	Ian Griffiths		
Title:	Programming C# 10		
Edition:	4th	Year:	2022
Local:			
Publisher:	O'Reilly Media, Inc.		

Author(s):	https://www.codeproject.com/		
Title:	Exemplos de código para programadores		
Edition:		Year:	2022
Local:			
Publisher:			

24. Complementary Bibliography

Author(s):	Enrico Buonanno		
Title:	Functional Programming in C#		
Edition:	2.nd	Year:	2022
Local:			
Publisher:	O'Reilly Media, Inc.		

Author(s):	https://stackoverflow.com/		
Title:	Exemplos de código para programadores		
Edition:		Year:	2022
Local:			
Publisher:			

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Ficha técnica MIP / MIP Datasheet	
Título / Title	Course Unit Program 'COMPLEMENTOS DE PROGRAMAÇÃO': Academic Year 2023/2024
Autor / Author	Prof. Doutor PAULO JORGE GONÇALVES PINTO
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Colaborador(es) / Colaborator(s)	-
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