UNIVERSIDADE LUSÍADA
LISBOA

Course Unit Program
WEBPROGRAMMING

Academic Year 2026/2027

1. Organic Unit

Faculty of Architecture and Arts

2. Course

ARTS AND MULTIMEDIA COMMUNICATION

3. Cycle

1st

4. Course Unit

WEBPROGRAMMING (V3020)

5. Scientific Area

6. Curricular Year

2nd

7. Type of Curricular Unit / Semester

2nd 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 NUNO SOTERO ALVES DA SILVA

12. Assistants

13. Teaching Language

Portuguese

14. General Objectives

Students will have the opportunity to develop a portfolio of creative websites and gain an in-depth understanding of how the Internet and the Web work through client-server interactions.

15. Specific Objectives

Webprogramming is an introduction to programming for the World Wide Web and the technologies that support it. The course takes a practical approach, where students will learn how to use the tools and technologies to build websites. At the same time, the students will also acquire knowledge of how and why many of these technologies work. And lastly, it's creative as students will have the opportunity to design and explore creative ways of building a website.

16. Skills to be acquired

By the end of the course, students will be able to write a simple "full-stack" website with web pages, client-side code, server-side code, and a database, with a variety of other important web programming concepts and technologies, including version control, code quality guidelines in multi-language projects, accessibility, and form validation.

17. Teaching Methodology

Lectures will introduce new material throughout the semester, motivate key concepts, and demonstrate web development strategies. It is therefore advised to be present and well prepared. Questions during the lecture are encouraged - questions help instructors gauge where students are at, and it is usually the case that many students share the same question.

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18. Course Unit Program

There course is divided into modules, where each introduces a key web programming technology:
- Web page structure and appearance with HTML5 and CSS
- Client-side interactivity and behavior with JavaScript
- Use of MVC (Model-View-Controller) frameworks, PHP or similar technologies
- Using web services (APIs) on the frontend with asynchronous JavaScript
- Writing web services with server-side JavaScript via Node.js
- Storing and retrieving information in a database with SQLite or similar data base

19. Assessment Methods

Based on the current Knowledge Assessment Regulations and the Specific Regulations for this curricular unit, attendance and participation in classes will be taken into account in the assessment.

20. Didactic Resources

Audiovisual resources will be used, incorporating new technologies, multimedia formats, and interactive presentations, specifically:
Specialized books and digital formats from the Online Knowledge Library (b-on);
Digital presentations (PowerPoint);
Computers, a video projector, and the Moodle platform.
Adobe, Microsoft, and W3Schools software.

21. Sustainability Objectives

SDG 4 - Quality Education: develops computational thinking, problem-solving, and digital literacy, which are essential to a foundational education in communication and multimedia. SDG 5 - Gender Equality: promotes an inclusive learning environment in technology-related fields, helping to reduce disparities in participation and academic achievement. SDG 9 - Industry, Innovation, and Infrastructure: introduces programming principles and multimedia structures that support computational efficiency a

22. Keywords

Programing
Web design
Sites
Internet

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23. Main Bibliography

Author(s): Robbins , Jennifer
Title: Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript, and Web Images
Edition: 6ª Year: 2025
Local: New York
Publisher: O'Reilly
ISBN Code: 978-1098137687

Author(s): Anderson, Iain
Title: AI for Creative Production: A handbook for the ethical use of AI in creating and processing text, im
Edition: 1ª Year: 2026
Local: Birmingham
Publisher: Packt Learning Hub
ISBN Code: 978-1806025817

Author(s): Pilot, Lise
Title: AI in UX Design: How UX Designers are Using AI in the Age of Artificial Intelligence
Edition: 1ª Year: 2026
Local: Birmingham
Publisher: Packt Publishing
ISBN Code: 978-1807787592

24. Complementary Bibliography

Author(s): Duckett, Jon
Title: Front-End Back-End Development with HTML, CSS, JavaScript, jQuery, PHP, and MySQL
Edition: 1ª Year: 2022
Local: New Jersey
Publisher: John Wiley & Sons Inc
ISBN Code: 978-1119813095

Author(s): Nixon, Robin
Title: Learning PHP, MySQL & JavaScript: A Step-by-Step Guide to Creating Dynamic Websites

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Ficha técnica MIP / MIP Datasheet	
Título / Title	Course Unit Program 'WEBPROGRAMMING': Academic Year 2026/2027
Autor / Author	Prof. Doutor NUNO SOTERO ALVES DA SILVA
Classificação / Classification	-
Descritores / Descriptors	-
Colaborador(es) / Colaborator(s	-
Data Hora / Date Time	
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