

Course Unit	Digital Technologies in Education		Field of study	Information and Communication Technologies	
Master in	Pedagogical Supervision and Innovation in Education		School	School of Education	
Academic Year	2023/2024	Year of study	1	Level	2-1
Type	Semestral	Semester	2	Code	5072-799-1205-00-23
Workload (hours)	162	Contact hours	T -	TP 15	PL 20
			TC -	S -	E -
			OT 10	O -	

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Maria Raquel Vaz Patrício

### Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Relate the concept of digital literacy to innovation and the positive transformation of educational contexts.
2. Know educational policy guidelines in the area of digital education that promote the development of innovative practices in educational contexts.
3. Understanding the pedagogical potential of digital technologies.
4. Analyze national and international trends and initiatives in the field of promoting innovative and creative educational practices with digital technologies.
5. Master digital tools and procedures for designing innovative learning environments innovative.
6. Developing innovative proposals for learning environments.

### Prerequisites

Not applicable

### Course contents

Innovation and digital technologies. Trends in technological innovation in education. Pedagogical creation and innovation with digital technologies.

### Course contents (extended version)

1. Innovation and digital technologies
  - Concepts and models of educational innovation.
  - Education policy guidelines for the transformation of education.
  - Pedagogical potential of digital technologies.
2. Trends in technological innovation in education
  - Technological innovation and changes in educational processes.
  - Emerging technologies in teaching, learning and assessment.
  - Critical analysis of innovative pedagogical approaches with digital technologies.
3. Pedagogical creation and innovation with digital technologies
  - Exploring emerging technologies to support creation and innovation in educational contexts.
  - Characteristics and principles for the design of learning environments.
  - Planning, production, implementation and evaluation of innovative learning environments.

### Recommended reading

1. Bates, A. W. (2019). Teaching in a digital age (2.<sup>ª</sup> Ed.). Tony Bates Associates Ltd.
2. Burns, T.; Gottschalk, F. (Eds.) (2020). Education in the Digital Age: Healthy and Happy Children, Educational Research and Innovation. OECD Publishing.
3. Kuhl, P., et al. (2019). Developing Minds in the Digital Age: Towards a Science of Learning for 21st Century Education, Educational Research and Innovation. OECD Publishing.
4. OECD (2021). OECD Digital Education Outlook 2021: Pushing the Frontiers with Artificial Intelligence, Blockchain and Robots. OECD Publishing.
5. Paniagua, A.; Istance, D. (2018). Teachers as Designers of Learning Environments: The Importance of Innovative Pedagogies, Educational Research and Innovation. OECD Publishing.

### Teaching and learning methods

Presentation, analysis and discussion of topics in a large group. Thematic sessions with invited specialists. Active strategies to promote creative, critical and reflective thinking. Practical activities involving research, exploration and use of digital technologies. Guidance for students' autonomous work. Individual or small group tutorials.

### Assessment methods

1. Continuous Assessmen - (Regular, Student Worker) (Final)
  - Development Topics - 15% (Online and face-to-face debates: quality, regularity and quantity of interventions)
  - Projects - 50% (Innovative educational project based on digital technologies)
  - Presentations - 20% (Presentation and discussion of the innovative educational project)
  - Reports and Guides - 15% (Peer review: evaluation of colleagues' projects)
2. Exame Assessment - (Regular, Student Worker) (Supplementary, Special)
  - Projects - 100% (Create, present and discuss an innovative educational project based on digital technologies)

### Language of instruction

Portuguese, with additional English support for foreign students.

### Electronic validation

Maria Raquel Vaz Patrício	Manuel Florindo Alves Meirinhos	Maria do Céu Ribeiro	Carlos Manuel Costa Teixeira
27-11-2023	27-11-2023	12-12-2023	11-02-2024