

Course Unit	Pedagogical Integration of Information and Communication Technologies	Field of study	Educational Sciences
Master in	Information and Communication Technologies- Education and Training	School	School of Education
Academic Year	2020/2021	Year of study	1
Type	Annual	Semester	-
Level	2-1	ECTS credits	7.0
Code	1083-622-1002-00-20		
Workload (hours)	189	Contact hours	T 5 TP 30 PL - TC - S 10 E - OT 18 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) Manuel Florindo Alves Meirinhos

Learning outcomes and competences

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

1. Understands the need to innovate through the curricular integration of ICT.
2. Explores innovatively available online teaching resources.
3. Develop and integrate the curriculum multimedia educational activities and other educational software.
4. Integrate in professional practice, emerging digital technologies.

Prerequisites

Not applicable

Course contents

The curriculum and ways of using ICT. Pedagogical exploitation of resources online. Development and exploration of multimedia educational activities. Pedagogical exploration of emerging digital technologies.

Course contents (extended version)

1. The curriculum and ways of using ICT.
 - Use versus integration of ICT.
 - IT tools to support teaching.
 - Software support learning tools.
 - Levels of integration of technological resources and associated skills.
 - Procedures for pedagogical innovation.
2. Pedagogical exploitation of resources online.
 - The creation of joint portfolios.
 - The joint discussion of issues.
 - The joint development work using wikis.
 - Creating tests and activities for resolution online.
 - Joint creation of concept maps.
3. Development and exploration of multimedia educational activities.
 - Edutainment, fun and hard gamification strategies.
 - Design software in JClic, Edilim and Hot Potatoes.
 - Placement of online software for exploration by students.
 - Exploration of some educational open source applications.
4. Pedagogical exploration of emerging digital technologies.
 - Mobile learning (educational Apps).
 - QR codes in education.
 - Learning Analytics.
 - Cloud computing.
 - The emergence of Flipped classroom model.
 - Artificial intelligence in education

Recommended reading

1. Carneiro, R; Toscano, J. Diaz, T. (coord.) (2010). Los desafíos de las TIC para el cambio educativo. OEI-Fundación Santillana: Madrid.
2. Cabero, J. e Barroso, J. (2013). Nuevos cenário digitais. Madrid: Pirámide.
3. Fadel, L. ; Ulbrich, V; Batista, C. e Vanzin, T (2014). Gamificação: São Paulo: Pimenta Cultural.
4. Lata, M. e Khatri, H. (2016). Educational Technology: Pedagogy and ICT Integration Across the Curriculum. Delhi: Shipra publications
5. Llorente, C. ; Roman, P. e Romero, R. (2014). Tecnologías en los entornos de Infantil y Primaria. Madrid: Síntesis.

Teaching and learning methods

The aim is to establish an immediate relationship between the theoretical knowledge and its application in practice. Immediate contact with equipment and programs is intended, so that learners develop appropriate materials for their students and implement them in concrete situations. This application must be accompanied by the teacher and followed by joint reflection by the trainee group.

Assessment methods

1. Continuous evaluation - (Regular, Student Worker) (Final)
 - Practical Work - 50% (Individual practical work)
 - Practical Work - 50% (Practical work in groups)
2. Final evaluation - (Regular, Student Worker) (Supplementary, Special)
 - Final Written Exam - 100% (Exam)

Language of instruction

Portuguese

Electronic validation

Manuel Florindo Alves Meirinhos	João Sérgio Pina Carvalho Sousa	Manuel Florindo Alves Meirinhos	António Francisco Ribeiro Alves
31-10-2020	02-11-2020	02-11-2020	02-11-2020