

Distance Education with Digital Technologies

COURSE CONTENT:

1. Distance Education (DE):

- Key Concepts: distance education, blended learning, e-learning
- Open Learning and Open Universities
- Organizing courses in a DE framework: structural elements and new roles
- Modern trends in DE and Massive Open Online Courses (MOOCs)

2. Development of Courses/Activities within an E-Learning Framework

- Principles of creating digital material for DE
- Pedagogical frameworks for course/activity design
- Flipped classroom
- Learning design and digital tools (Learning Designer, ILDE)

3. Digital E-Learning Environments

- Synchronous and asynchronous distance education
- Learning Management Systems (LMS) (eClass, Moodle, LAMS)
- Peer assessment systems
- Educational/learning data and their utilization

4. Online Environments Supporting Personalized Learning

- Differentiated teaching and personalized learning
- Personalized Learning Design Environments (CPELDS, INSPIREus)
- Architecture of intelligent and adaptive educational systems
- Open learner modeling
- System examples

Detailed Description of Units:

In the **first unit**, we discuss (i) the concept of open learning and flexible access to lifelong learning, (ii) the characteristics of the educational practice of distance education within an open university framework (roles, educational material, support organization, and advisory meetings), e-learning, and the blended learning model, (iii) contemporary trends and educational practices in distance education, such as MOOCs, which represent a paradigm shift in the field.

The **second unit** covers topics related to instructional design for e-learning scenarios, including (a) the pedagogical foundations of digital material and activity design for DE, and (b) systems that support scenario design, such as Learning Designer and ILDE.

In the **third unit**, we explore digital e-learning environments and the capabilities they offer for managing virtual classrooms, designing learning activities, peer assessment activities, and overseeing the educational process in general, including platforms like eClass, Moodle, and LAMS.

The **fourth unit** focuses on digital environments that support personalized learning and differentiated instruction. It examines (a) the design requirements of such scenarios and relevant parameters, and (b) systems and functions that enable the design and delivery of personalized learning experiences.