Erasmus+

Curriculum

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Elaboration: University of Galway and EGE

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This document may change without notice.

1. The Curriculum

Course Title	Instructional Technology for STEM Teacher in higher education (HE)
Aim of the Program	This program is focused on assisting HE teachers of science, technology, engineering, and mathematics (STEM) to better understand how to integrate subject-specific teaching and learning using effective and innovative digital tools as instructional technologies. This program also allows STEM teachers in HE to improve their readiness for digital education, help them apply the principles of instructional technology horizontally throughout their teaching, and choose the appropriate tools to support them to achieve their learning goals.
Target Group	STEM Teachers
Prerequisites	General technology knowledge Skills to analyse different materials Knowledge on conducting assessments
Learning Objectives	To provide teachers with the understanding of what is instructional technology To provide teachers with will knowledge on know how to use technological tools in the learning process To provide teachers with the knowledge on how to design, develop, manage and evaluate the teaching process of learning mediated by technological tools To allow participants to engage in effective learning experiences using available technological tools for pedagogical purposes and motivation. To introduce to the participants new, innovative technological tools to motivate their students in their learning process To provide teachers with the ability to decide how to use instructional technology for the students who have learning barriers
Developed Skills	Digital Competences Design Skills related to instruction Creativity skills Motivational skills Skills related to integrate instructional technology into their courses

Learning Outcomes	Develop skills that allows the integration instructional technology into STEM courses Empowers the ability of STEM teachers to create learning and assessment materials via technological tools
Duration	30 hours

2. The Content

Module	Units
Instructional Technology	Unit 1: Instructional technology
	Unit 2: Characteristics of instructional technology
	Unit 3: The challenges of teacher level instructional technology
	Unit 4: The challenges of School level instructional technology
Instructional Design	Unit 5: Instructional design
	Unit 6: Design principles
	Unit 7: Flexible instructional design models
	Unit 8: Linear instructional design models
Instructional Technology for Learners with Learning Barriers	Unit 9: Steps to adapt your teaching methods and course content for instructional technology and/or Instructional Design
	Unit 10: Instructional technology for students with learning barriers
	Unit 11: Factors to enable change
	Unit 12: Tools selection
Evaluation Methodology	
Evaluation	There are a total of 12 Units in 3 modules. Each unit has short quizzes for

	self-evaluation. Taking quizzes is a voluntary action for completing the units.