

COURSE OUTLINE

(1) GENERAL

SCHOOL	SCHOOL OF PHILOSOPHY	
ACADEMIC UNIT	DEPARTMENT OF PHILOSOPHY	
LEVEL OF STUDIES	Undergraduate	
COURSE CODE		SEMESTER 3rd
COURSE TITLE	Artificial Intelligence in the Service of Teaching: Designing Lessons with New Technologies	
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		WEEKLY TEACHING HOURS
		3
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>		
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Skills Development / Pedagogical Specialization	
PREREQUISITE COURSES:	Teaching Methodology	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (with English support available for Erasmus students)	
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes	
COURSE WEBSITE (URL)	Not yet available	

(2) LEARNING OUTCOMES

Learning outcomes <i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i> <p>Consult Appendix A</p> <ul style="list-style-type: none"> • Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area • Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B • Guidelines for writing Learning Outcomes
Upon successful completion of the course, students will be able to: <ul style="list-style-type: none"> • Identify and utilize contemporary Artificial Intelligence tools in teaching practice. • Design micro-lessons based on Cognitive Load Theory (Sweller et al.) and the Cognitive Theory of Multimedia Learning (Mayer). • Implement experiential techniques (Kolb) and pedagogical scenarios of active learning using AI tools. • Engage in reflective evaluation of their experience (Schön). • Theoretically justify their choices based on valid, Scopus-indexed literature.
General Competences <i>Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?</i> <p>Search for, analysis and synthesis of data and information, Project planning and management with the use of the necessary technology Respect for difference and multiculturalism Adapting to new situations Respect for the natural environment</p>

<i>Decision-making</i>	<i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i>
<i>Working independently</i>	<i>Criticism and self-criticism</i>
<i>Team work</i>	<i>Production of free, creative and inductive thinking</i>
<i>Working in an international environment</i>
<i>Working in an interdisciplinary environment</i>	<i>Others...</i>
<i>Production of new research ideas</i>

- Search and analysis of information using ICT
- Project planning and management
- Teamwork and collaboration
- Development of reflective and critical thinking
- Development of pedagogical and digital literacy
- Exercise of critical and self-critical thinking
- Demonstration of social, professional, and ethical responsibility and sensitivity regarding issues related to Artificial Intelligence

(3) SYLLABUS

General Content:
<ul style="list-style-type: none"> • Introduction to Artificial Intelligence and its applications in Education • Pedagogical theories and AI: Cognitive Load Theory, Cognitive Theory of Multimedia Learning, reflective practice • Selection and presentation of appropriate Artificial Intelligence tools, e.g., ChatGPT, Canva AI, Diffit, Curipod, MagicSchool • Design of a micro-lesson using AI tools – teacher/student roles • Trial implementation, feedback, and reflection
Purpose of Each Assignment:
<p>The purpose of each assignment is to apply an AI tool in the design and pilot implementation of a micro-lesson in the context of philological subjects (Language, Literature, or History), taking into account the pedagogical theories of Cognitive Load Theory and the Cognitive Theory of Multimedia Learning, and grounding the work in valid international literature.</p>
Collaboration Structure:
<ul style="list-style-type: none"> • The project is carried out in student pairs. • One member assumes the role of teacher, the other of student, in order to experience both sides of the learning interaction and record what works and what challenges arise. • At the end, they complete a shared reflective commentary based on their experience, referring to: <ul style="list-style-type: none"> ◦ The pedagogical use of the AI tool ◦ Their experience of role-playing ◦ The challenges, ethical questions, and suggestions for improving the learning experience

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face-to-face or blended learning																							
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	Use of ICT in teaching Use of AI tools Digital communication platform Student collaboration platform																							
TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i> <i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i> <i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Activity</th> <th style="text-align: center;">Semester workload</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td>Course total</td><td> </td></tr> </tbody> </table>		Activity	Semester workload																			Course total	
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STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure</i> <i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i> <i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i>	<ol style="list-style-type: none"> 1. PowerPoint presentation (lesson plan quality): 20% 2. Final project per pair (lesson plan + implementation + reflection): 80% <p>Assessment criteria for the final project:</p> <ul style="list-style-type: none"> • Integration of theory and literature: 20% • Pedagogical use of the AI tool: 20% • Experiential implementation and reflection: 20% • Originality and creativity: 20% 																							

(5) ATTACHED BIBLIOGRAPHY

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<i>Aleven, V., McLaughlin, E. A., Glenn, R. A., & Koedinger, K. R. (2017). Intelligent tutoring systems. In J. C. K. Lee & C. McLoughlin (Eds.), <i>Handbook of research on digital content, mobile learning, and technology integration models in teacher education</i> (pp. 79–102). IGI Global. https://doi.org/10.4018/978-1-5225-0983-7.ch005</i>
<i>Alloway, T. P., & Alloway, R. G. (2010). <i>Working memory: The connected intelligence</i>. Psychology Press.</i>
<i>Ashokkumar, N., & Neelamegam, D. (2025). <i>Analysis of cognitive science and learning environments in educational institutions</i>. Rajarambapu Institute of Technology. https://scholar.google.com/scholar?cluster=12318877113437422085</i>
<i>Boekaerts, M. (2011). <i>Emotions, emotion regulation, and self-regulation of learning</i>. In B. J. Zimmerman & D. H. Schunk (Eds.), <i>Self-regulated learning and academic achievement: Theoretical perspectives</i> (2nd ed., pp. 63–77). Routledge.</i>
<i>D'Mello, S., & Graesser, A. (2015). <i>Feeling, thinking, and computing with affect-aware learning technologies</i>. In R. A. Calvo, S. K. D'Mello, J. Gratch, & A. Kappas (Eds.), <i>The Oxford handbook of affective computing</i> (pp. 419–434). Oxford University Press.</i>
<i>Jamaludin, F. F., & Ham, J. R. C. (2023). <i>The impact of a pedagogical agent's visual presence and learning task type on cognitive load and learning outcomes</i> [Master's thesis, Eindhoven University of Technology]. https://research.tue.nl/files/341224032/Master_Thesis_Report_Farhan_Fauzan_Jamaludin.pdf</i>

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Schroeder, N. L., & Cenkci, A. T. (2018). *Spatial and temporal contiguity principles for the design of instructional animations: A meta-analysis*. *Educational Psychology Review*, 30(3), 709–726. <https://doi.org/10.1007/s10648-018-9434-9>

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