



Course: Emerging Technologies in Education
Type and level of studies: MAS
Study program: Class Teacher Education, Kindergarten Teacher Education
Teacher(s): Verica Milutinović
Language of instruction: English
ECTS: 5
Prerequisites: /
Semester: Winter semester

Course unit objective

The course aims to develop students' advanced understanding of distance and technology-enhanced education, emphasizing the pedagogical role of web portals, digital learning environments, and Artificial Intelligence (AI) in both synchronous and asynchronous instruction. Students will gain the knowledge and skills necessary to design, develop, and evaluate innovative digital teaching materials and tools—such as didactic multimedia software, educational blogs, websites, and wikis—for effective integration into diverse educational contexts.

Learning outcomes

Upon successful completion of the course, the student will be able to: Critically analyze the pedagogical potential and challenges of emerging technologies, including artificial intelligence, virtual and augmented reality, learning analytics, and adaptive learning systems; Select and apply appropriate digital and AI-supported tools to design innovative, inclusive, and ethical technology-enhanced learning environments; Develop, implement, and evaluate web-based and blended learning platforms using contemporary ICT and AI applications in education; Integrate multimodal resources (audio, video, graphics, and interactive media) into instructional design in accordance with pedagogical goals and digital competence frameworks; Collaborate and communicate effectively using digital platforms and online conferencing tools for professional and educational purposes; Demonstrate awareness of ethical, data privacy, and sustainability issues in the educational use of emerging technologies.

Course unit contents

Theoretical classes

Emerging technologies in education: the role of Artificial Intelligence (AI), immersive technologies, and learning analytics in contemporary pedagogy. Educational software for creating interactive presentations and digital learning environments. Internet and communication technologies, hypermedia, and their contribution to the individualization and personalization of learning. Selection, adaptation, and production of high-quality digital learning materials for diverse learners. Integration of multimedia and AI-supported tools to enhance teaching quality and engagement. Effective use of web portals, open educational resources (OER), and cloud-based platforms in educational settings.

Practical classes

Application of Web 2.0 and Web 3.0 tools (blogs, wikis, collaborative platforms, and social media) to support teaching, learning, and student collaboration. Design and development of interactive multimedia and educational video materials. Implementation of AI tools (e.g., chatbots, adaptive systems) for personalized learning experiences.

Literature

Newby, T. J., Stepich, D., Lehman, J., Russell, J. D., Ottenbreit-Leftwich, A. (2011). *Educational Technology for Teaching and Learning*. Pearson Education.
 Bonk, C. (2009). *The world is open: how Web technology is revolutionizing education*. San Francisco, Calif.: Jossey-Bass.
 Niemi, H., Pea, R. D. & Lu, Y. (2023). *AI in Learning: Designing the Future*. Springer.
 Abdul, M. K., & Obeng, O. B. (2024). *Navigating Through Technology in Modern Education*. Bentham Science Publishers.

Number of active teaching hours:			Other classes
Lectures: 30	Seminar: 15	Independent work:	
Teaching methods: Lectures			
Examination methods (maximum 100 points)			
Exam prerequisites	No. of points:	Final exam	No. of points:

Student's activity during lectures	10	oral examination	30
practical classes/tests	20	written examination	
Seminars/homework	10	tests	
Project	30		
Other			

Grading system		
Grade	Number of points	Description
10	91 – 100	Excellent
9	81 – 90	Exceptionally good
8	71 – 80	Very good
7	61 – 70	Good
6	51 – 60	Passing
5	≤50	Failing