


<b>Course: Informatics</b>	
<b>Type and level of studies:</b> UAS	
<b>Study program:</b> Class Teacher Education, Kindergarten Teacher Education	
<b>Teacher(s):</b> Verica Milutinović	
<b>Language of instruction:</b> English	
<b>ECTS:</b> 3	
<b>Prerequisites:</b> /	
<b>Semester:</b> Winter semester	

### Course unit objective

This course aims to enhance students' understanding of various issues and applications of information and communication technology (ICT) so that they can use ICT effectively in primary education. It provides an overview of contemporary technology for learning, including ICT and artificial intelligence (AI), with emphasis on connecting technology to instructional practice in primary education. Students will become familiar with hardware and software platforms, practical use of various software tools, applications of electronic computers and AI in teaching, learning, and school administration.

### Learning outcomes

Upon successful completion of the course, the student understands the role of ICT and AI in primary education and knows how to apply them in teaching and learning activities. The student is able to create documents in a word processor, spreadsheets in Excel, drawings in Paint, and presentations in PowerPoint. They can integrate audio, video, graphic, and AI-generated content into teaching materials, as well as search for literature using digital tools, including AI-based search and recommendation systems. The student understands how AI tools can support lesson planning, content creation, and the personalization of learning processes.

### Course unit contents

#### Theoretical classes

The role of ICT and AI in modern society. The use of computers in classroom practice and administration. The concept and structure of information systems. Pedagogical effects of using computers and AI in education. Hardware, system and application software. Educational software. Fundamentals of AI tools for teaching and learning. ECDL

#### Practical classes

Practical use of Microsoft Office applications in education (MS Word, Excel, PowerPoint), the use of AI tools for lesson planning, generating exercises, and producing teaching materials, as well as combining traditional software with AI-based assistants for classroom tasks.

### Literature

Newby, T. J., Stepich, D., Lehman, J., Russell, J. D., Ottenbreit-Leftwich, A. (2011). *Educational Technology for Teaching and Learning*. Pearson Education.

Abdul, M. K., & Obeng, O. B. (2024). *Navigating Through Technology in Modern Education*. Bentham Science Publishers.

Holler, J. (2024). *The Microsoft Office 365 bible: The most updated and complete guide to Excel, Word, PowerPoint, Outlook, OneNote, OneDrive, Teams, Access, and Publisher from beginners to advanced*. James Holler Teaching Group.

<https://icdl.org>

Number of active teaching hours:			Other classes
Lectures: 30	Seminar: 15	Independent work:	

### Teaching methods:

Lectures, practical classes, project development, and seminars.

### 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			
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<b>Grading system</b>		
<b>Grade</b>	<b>Number of points</b>	<b>Description</b>
10	91 – 100	Excellent
9	81 – 90	Exceptionally good
8	71 – 80	Very good
7	61 – 70	Good
6	51 – 60	Passing
5	$\leq 50$	Failing