

IP002	Obligatory 3 <sup>rd</sup> Semester	<b>Informatics Teaching Methods II</b>	L	P	S	ECTS 5
			2	1	1	

**Course objectives.** The aim of the course is to train students, theoretically and practically, for high-quality preparation, implementation and analysis of the teaching process based on the results of scientific research in the field of computers science education and recommendations of the national curriculum.

**Prerequisites.** Informatics Teaching Methods I.

**Course content.**

1. Concepts of computer, digital and information literacy. Standards of education in the field of informatics/information technology.
2. The introduction of information technology in the curriculum Croatian primary and secondary education: introduction of information content in technical education, the introduction of information technology as a separate subject. The current status of informatics as a subject and extra-curricular activities in primary and secondary schools in the Republic of Croatia. Equipping computer labs. Educational software.
3. Principles of teaching. The principle of appropriateness. The principle of consistency and gradualism. The principle of science. The principle of interest, awareness and activities. The principle of clarification and abstraction. The principle of sustainability knowledge, skills and habits. The principle of efficiency and rationalization. The principle of modernity and historicity. The principle of individuation. The principle of integration (holism).
4. Selected topics in the teaching in primary and secondary schools: methodological and didactic elaboration of themes according to four domains of the curriculum of the subject computer science/information technology: e-Society, digital literacy and communication, information and digital literacy, computer thinking and programming

**LEARNING OUTCOMES**

No.	LEARNING OUTCOMES
1.	Develop an annual plan for the informatics education and IT according to units and topics.
2.	Use varied repertoire of teaching models and arguments and make a selection of the most appropriate one in the given circumstances.
3.	Use of modern technologies as didactical aids.
4.	Make lesson plans based on own experiences and on the results of scientific research related to the implementation of certain topic in the classroom, focusing on the students' difficulties and misunderstandings.

**RELATING THE LEARNING OUTCOMES, ORGANIZATION OF THE EDUCATIONAL PROCESS AND ASSESSMENT OF THE LEARNING OUTCOMES**

TEACHING ACTIVITY	ECTS	LEARNING OUTCOME **	STUDENT ACTIVITY*	EVALUATION METHOD	POINTS	
					min	max
Attending lectures and exercises	1	1-4	The presence at lectures, discussions, teamwork and independent work on assignments	Attendance lists, tracking activities	8	10
Assignments	1	1-4	Solving problems	Verification of correct answers (evaluation)	7	15
Seminar	1	1-4	Writing seminar paper	Public presentation	5	15

Written exam (Mid-terms)	2	1-4	Preparing for the written test	Verification of correct answers (evaluation)	20	40
Final exam	1	1-4	Revising	Oral exam	10	20
TOTAL	6				50	100

**Teaching methods and knowledge assessment.** Lectures, exercises and seminars are obligatory. Students are expected to regularly attend classes (obligatory presence on at least 85% of the lectures, exercises and seminars). Other requirements for students include: active participation in lectures, exercises and seminars, writing and presentation of seminar papers. Seminar papers will be evaluated. The examination consists of written and oral part.

**Can a subject taught in English:** Yes

**Basic literature:**

1. V. Galešev et al., Informatics and Computing: methodical manual for teachers, SysPrint, Zagreb, 2006.
2. National curriculum of the subject for primary and secondary schools, MZOS, 2018.

**Recommended reading:**

1. The curricula of informatics / computer science for primary and secondary education, the Ministry of Science, Education and Sports
2. Textbooks in informatics / computer science for primary and secondary schools