Level: bachelor
Course title: Teaching methods in informatics
Status: elective for the module of *Information Technologies,* elective for the module of *Computer Science*
ECTS: 7
Requirements: None
Learning objectives   Acquiring knowledge in the field of methodologies of teaching informatics and preparation of students for their application.
Learning outcomes   Students should be prepared to apply the contemporary methodological principles and educational techniques in preparation and performing teaching informatics.
Syllabus   *Theoretical instruction*   Forms of thinking in a process of teaching of mathematics and informatics. Mathematical notions and methodology of their introduction in teaching of mathematics and informatics. Mathematical basics and conclusions. Necessity and sufficiency. Induction and deduction. Analogy. Comparison. Analysis and synthesis. Generalization and abstraction.   Role and place of assignments in teaching of informatics, their choice according to teaching goals and methodology of their solving. Principles, methods, and forms in teaching informatics. Heuristic methods. Methods of active input. Method of programmed instruction. Problem based learning. Individualization.   Organization of teaching of informatics. Computer science class as a basic form of teaching. System of preparation for class teaching. Teaching planning. Examination and assessment in teaching informatics. Teaching and technical equipment in teaching informatics. Problems of educational technology.   Additional and complementary teaching and free pupil activities in teaching informatics. Methodology of work for those activities, schools with enhanced studies of informatics and specificities of their work. Problems of modernizations with teaching of informatics and repercussions of new problems on methodological approaches.   *Practical instruction*   Written preparation for a teaching class, demonstration of teaching class and actual conduction of teaching in elementary and secondary schools, analysis of the teaching process and conducting the class.

Weekly teaching load				Other:
Lectures: 2	Exercises: 3	Other forms of teaching:	Student research:	