Course title: Selected Chapters of Geometry-didactical approach

Lecturer: Nevena Pusic

Course Status: Elective

Number of ESPB: 15

Requirement: -

The target of the course
Introduction to basic methods of teaching geometry

Outcome
Methodical processing of teaching topics from geometry

Contents

Theoretical studies

Methodical processing of approved topics from:
History of geometry. Axiomatic approach. The axiomatic systems. Basic terms, relations and attitudes. Hilbert system and various modifications. Groups of axioms and basic implications.Triangle. Significant point and a line. Circle. Peripheral and central angles. Cyclic and tangential quadrilateral. Vectors and applications. Thales' theorem. The elements of stereometry. Parallelism and normality in the area. True bypass. Geometric places of points. Geometric constructions. Geometric transformations. Compatibility and likeness. The geometry of circles. The circular highlights. Inversion.

Suggested literature

1) Derek Holton,The Teaching and Learning of Mathematics at University Level: An Icmi Study Springer,2001
2) William Flannery , Calculus Without Tears: Lesson Sheets for Learning Calculus for Students from the 4th Grade Up Publisher: Berkeley Science Books 2002
3) John P. D'Angelo Douglas B. West Mathematical Thinking: Problem-Solving and Proofs бу , Prentice Hall; December 17, 1999

Number of active lectures	Lectures: 5	Research work: 5

Teaching methods

Lectures, solving problems with and without the use of computers. Laboratory exercises and colloquiums in the PC lab.

Evaluation of knowledge (maximum score 100)

Prerequisites	points	**Final exam**	points
Activity during the lectures	**4**	Oral exam	**40**
Practical teaching	**4**		
colloquiums	**52**	.....	
seminars			