Incoming student mobility

UNIOS University Unit: SCHOOL OF APPLIED MATHEMATICS AND INFORMATICS

COURSES OFFERED IN FOREIGN LANGUAGE
FOR ERASMUS+ INDIVIDUAL INCOMING STUDENTS

Department or Chair within the UNIOS Unit	School of Applied Mathematics and Informatics

Study program	Graduate Mathematics and Informatics Education Study Programme

Study level	Graduate (master)

Course title	Constructive and Analytical Geometry
Course code (if any)	M116
Language of instruction	English
Brief course description	Syllabus. 1. Euclidean constructions. Constructive task. The locus of points. Methods of auxiliary figures. 2. Methods of geometric transformations. Symmetry with respect to a line. Rotation. Symmetry with respect to a point. Translation. Glide symmetry. Similarity. Inversion. 3. Algebraic method. 4. Constructions by limited means. 5. The rectangular (Cartesian) coordinate system in space. Basic metrical relations of analytical geometry of space. The orientation of the coordinate system. 6. Transformation of the coordinates. Euler angles. 7. The equation of a plane. The distance of the point from a plane. The angle between two planes. 8. The equation of a line in three-dimensional space. The distance from a point to the line, the distance between two lines. The angle between two lines in space. The angle between a line and a plane. 9. Surfaces of the second order. Geometric mappings in R3.
Form of teaching	
Form of assessment	Lectures and exercises are obligatory. The exam consists of a written and an oral part. Upon completion of the course, students can take the exam. Successful midterm exam scores replace the written exam.

Number of ECTS	6
Class hours per week	2+3+0
Minimum number of students	
Period of realization	Summer semester
Lecturer	Zdenka Kolar-Begović