

Incoming student mobility**Name of UNIOS University Unit:** DEPARTMENT OF MATHEMATICS**COURSES OFFERED IN FOREIGN LANGUAGE
FOR ERASMUS+ INDIVIDUAL INCOMING STUDENTS**

Department or Chair within the UNIOS Unit	Department of Mathematics
Study program	<i>Undergraduate university study programme in Mathematics</i>
Study level	Undergraduate (Bachelor)
Course title	Introduction to Differential Geometry
Course code	M105
Language of instruction	English
Brief course description	<p>Syllabus.</p> <ol style="list-style-type: none"> 1. Definitions of the surface and of the curve, examples and basic properties. Tangent spaces. Vector fields on surfaces. 2. Orientation of surface. The Gauss map. 3. Vector fields along curves and geodesics. Covariant derivative and parallel transport. 4. The Weingarten map. Curvature of surfaces and of plane curves. The first and the second fundamental form. 5. Arc length and line integrals. 6. Parametrization of a surface. Examples of parametrized surfaces. Local equivalence of surfaces. Surface area (volume).
Form of teaching	Consultative teaching.
Form of assessment	Attendance at lectures and exercises is required. The exam consists of written and oral part, and can be taken after completion of lectures and exercises. During the semester students can take colloquiums that replace the written examination.
Number of ECTS	6
Class hours per week	2+2+0

ERASMUS+

EU programme for education, training, youth and sport

Minimum number of students	
Period of realization	Winter semester
Lecturer	Ljiljana Primorac Gajčić