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	***Undergraduate university study programme in Mathematics***

Study level	Undergraduate (Bachelor)

Course title	**Complex Analysis**
Course code	M015
Language of instruction	English
Brief course description	Syllabus. 1. Complex numbers and elementary functions. Polynomials, exponential and logarithmic functions, power, trigonometric and hyperbolic functions. 2. Analyticity. Cauchy-Riemann conditions. Harmonic functions. Conformal mapping. Moebius transformations. 3. Integral of the function of a complex variable. Cauchy theorems. Properties of analytic functions: Maximum modulus principle, the existence of derivatives of any order, Morera and Liouville theorem. 4. Series of functions. Weierstreiss theorems. Power series. Abel's theorem. Taylor series. Radius of convergence. Series of elementary functions. 5. Zeros and isolated singularities. Laurent series. Residue theorems. Jordan's lemma. Applications in computation of integrals.
Form of teaching	Consultative teaching.
Form of assessment	Lectures and exercises are mandatory. The exam consists of a written and an oral part, and it is taken after the completion of lectures and exercises. Acceptable mid-term exam scores replace the written examination.

Number of ECTS	**6**
Class hours per week	**2+2+0**
Minimum number of students	
Period of realization	**Summer semester**
Lecturer	Krešimir Burazin