

Incoming student mobility

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	Graduate university study programme in mathematics (Master level) Branches: <ul style="list-style-type: none"> • Financial Mathematics and Statistics-obligatory • Mathematics and Computer Science-obligatory
Study level	Graduate (master)
Course title	Probability
Course code (if any)	M118
Language of instruction	English
Brief course description	<p>Syllabus.</p> <ol style="list-style-type: none"> 1. Probability as a measure. Random variable. Transformation of random variable. Distribution function. Mathematical expectation and higher order moments. L_2 space. Important inequalities. 2. Random vector. Distribution function. Independence. Mathematical expectation, covariance matrix and correlation matrix. Transformations of random vector. Conditional distributions. Conditional expectation with respect to sigma algebra. 3. Probability generating functions. Characteristic functions. 4. Sequences of random variables. Types of convergence of random variables. Connections among convergence types. The laws of large numbers. Central limit theorems.
Form of teaching	Consultative teaching.
Form of assessment	Lectures and exercises are obligatory. The final exam is oral, taken after the completed lectures and exercises and achieved minimum number of credits at the midterm exams. Students can influence the grade by writing homework during the semester.

ERASMUS+

EU programme for education, training, youth and sport

Number of ECTS	9
Class hours per week	4+3+0
Minimum number of students	
Period of realization	Winter semester
Lecturer	Danijel Grahovac