

## 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) Branch: <ul style="list-style-type: none"> <li>Financial Mathematics and Statistics-obligatory</li> </ul>
Study level	Graduate (master)
Course title	Credit Risk Management
Course code (if any)	
Language of instruction	English
Brief course description	<p>Syllabus.</p> <ol style="list-style-type: none"> <li>1. Credit risk definition. Traditional credit analysis. Financial analysis of loan application. Shortcomings of traditional credit analysis. Project assignment.</li> <li>2. Credit risk models based on the accounting data and market value. Characteristics of credit risk models. The reasons for using credit risk models. Some of the known credit risk models: Altman z-score, ZETA, Ohlson, EDF model.</li> <li>3. The use and application of credit scoring models. Principles of credit risk model development. Validation of credit scoring/rating models. Types of credit scoring models. Statistical methodology in credit risk model development. Development of the scoring model using a data set from the bank. Validation of the developed models by using appropriate tests.</li> <li>4. Retail credit scoring models. Characteristics of retail scoring models. Application of models. Accuracy of models. Most frequently used methods in developing retail scoring models. Key variables in retail scoring models.</li> <li>5. Credit scoring models for small and medium enterprises. Specifics of credit scoring models for small and medium enterprises. Reasons for using credit scoring models for small</li> </ol>

	<p>and medium enterprises. Problems in developing credit scoring models for small and medium enterprises. Key variables in credit scoring models for small and medium enterprises.</p> <p>6. Basel 2. Capital adequacy of credit institutions. Treatment of credit risk. Standardized approach. An approach based on internal rating models.</p>
Form of teaching	Consultative teaching.
Form of assessment	The grade is formed as the average score based on the following grades: (i) activities in solving practical problems and tasks, (ii) homework, (iii) 2 project tasks, whereby the first project task refers to the classic credit analysis and the second project to development and validation of credit scoring models, (iv) evaluation of 3 mid-term exams. The last mid-term exam covers teaching materials from previous mid-term exams, and as such it represents the final exam of the course.
Number of ECTS	4
Class hours per week	2+0+2
Minimum number of students	
Period of realization	Summer semester
Lecturer	Dr. Nataša Šarlija, Full Professor