

## 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	<p><i>Graduate university study programme in mathematics (Master level)</i></p> <p><b>Branch:</b></p> <ul style="list-style-type: none"> <li>• <i>Financial Mathematics and Statistics-elective</i></li> <li>• <i>Mathematics and Computer Science-elective</i></li> <li>• <i>Graduate Mathematics and Informatics Education Study Programme-elective</i></li> </ul>
Study level	Graduate (master)
Course title	<b>Convex Functions</b>
Course code (if any)	M109
Language of instruction	English
Brief course description	<p><b>Syllabus.</b></p> <ol style="list-style-type: none"> <li>1. Convex sets. Definition of a convex set. Convex sets examples. Operations that preserve convexity. Generalized inequalities. Separation theorem. Dual sets.</li> <li>2. Convex functions. Convex functions and characterizations. Convex functions defined on convex sets. Conjugate functions. Quasi-convex functions. Log-convex functions and log-concave functions. Convex functions and inequalities. Convexity and majorization.</li> </ol>
Form of teaching	Consultative teaching.
Form of assessment	Lectures and exercises are mandatory. The exam consists of written and oral part, which can be taken after the completion of lectures and exercises. During semester, students can take mid-terms which can replace the written examination.
Number of ECTS	<b>3</b>

## ERASMUS+

EU programme for education, training, youth and sport

Class hours per week	<b>1+1+0</b>
Minimum number of students	
Period of realization	<b>Summer semester</b>
Lecturer	<i>Mihaela Ribičić Penava</i>