Incoming student mobility

UNIOS University Unit: SCHOOL OF APPLIED MATHEMATICS AND INFORMATICS

COURSES OFFERED IN FOREIGN LANGUAGE
FOR ERASMUS+ INDIVIDUAL INCOMING STUDENTS

Department or Chair within the UNIOS Unit	School of Applied Mathematics and Informatics

Study program	Graduate university study programme in mathematics (Master level) Branches: • Mathematics and Computer Science-obligatory

Study level	Graduate (master)

Course title	Advanced programming techniques
Course code (if any)	I068
Language of instruction	English
Brief course description	Syllabus. 1. Introduction. What is design pattern? Describing design patterns. How design patterns solve design problems? How to select a design pattern? 2. SOLID principles. Boost library. 3. Creational design patterns: abstract factory, builder, factory method, prototype, singleton. 4. Structural design patterns: adapter, bridge, composite, decorator, façade, flyweight, proxy. 5. Behavioral patterns: chain of responsibility, command, interpreter, iterator, mediator, memento, observer, state, strategy, template method, visitor.
Form of teaching	
Form of assessment	Lectures and exercises are obligatory. The exam consists of a written and an oral part. Upon completion of the course, students can take the exam. Successful midterm exam scores replace the written exam. Exercises are both auditory and laboratory. Laboratory exercises include the usage of computers. Students can improve their grades by writing homework assignments and seminars. By the end of the class the practical project will be defined.

Number of ECTS	7
Class hours per week	2+2+1
Minimum number of students	
Period of realization	Summer semester
Lecturer	Domagoj Matijević