

COURSE CATALOGUE 2016-2017

Field: **COMPUTER SCIENCE**

Programme: **Master's Degree Programme in Advanced Programming and Databases**

Length of studies: **2 years (4 semesters)**

Number of ECTS Credits: **120 +20 for the M.Sc. Thesis**

Languages of teaching: **Romanian (English tutoring available for Erasmus students)**

Form of education: **Full-time**

Course Code	Course Title	Type of course/ tuition hours	Semester	ECTS
MI101	Software Engineering	Compulsory, 56	Autumn	8
MI102	Advanced techniques of object-orientated programming	Compulsory, 56	Autumn	8
MI105.1	Advanced elements of Web programming	Elective (1 out of 2), 56	Autumn	7
MI105.2	Software architecture	Elective (1 out of 2), 56	Autumn	7
MI106.1	Visual Programming Environments: Java	Elective (1 out of 2), 56	Autumn	7
MI106.2	Communication systems and Networks	Elective (1 out of 2), 56	Autumn	7
MIF01	Embedded Systems Development	Optional, 28	Autumn	
MI303	Object oriented Database	Compulsory, 56	Summer	8
MI304	Data Mining	Compulsory, 56	Summer	6
MI309	Practical Activities	Compulsory, 90	Summer	4
MI307.1	Mobile Devices Programming	Elective (1 out of 2), 56	Summer	6
MI307.2	Implementation of competition in programming	Elective (1 out of 2), 56	Summer	6
MI308.1	Intelligent Robots	Elective (1 out of 2), 42	Summer	6
MI308.1	Intelligent calculus applications	Elective (1 out of 2), 42	Summer	6
MIF02	Embedded Systems Development	Optional, 28	Summer	
MI201	Software security	Compulsory, 56	Autumn	8
MI202	Advanced storage and operating database techniques Numerical Calculus	Compulsory, 56	Autumn	8
MI205.1	Models of operational research	Elective (1 out of 2), 56	Autumn	7
MI205.2	Numerical methods in scientific research	Elective (1 out of 2), 56	Autumn	7
MI206.1	Distributed Databases	Elective (1 out of 2), 56	Autumn	7
MI206.2	Software testing	Elective (1 out of 2), 56	Autumn	7
MIF09	English Language	Optional, 28	Autumn	
MI203	Component Oriented Programming	Compulsory, 56	Summer	8
MI204	Team Software project	Compulsory, 28	Summer	4
MI209	Elaboration of the dissertation paper	Compulsory, 28	Summer	4
MI207.1	Programming models and techniques in virtual reality -VRML	Elective (1 out of 2), 56	Summer	7
MI207.2	Cryptography	Elective (1 out of 2), 56	Summer	7
MI208.1	Audit of Information Systems	Elective (1 out of 2), 56	Summer	7
MI208.2	Electronic Commerce	Elective (1 out of 2), 56	Summer	7
MIF10	English Language	Optional, 28	Summer	