



Hungary-Romania
Cross-Border Co-operation
Programme 2007-2013

European Union

European Regional Development Fund



University of Oradea
Faculty of Management and
Technological Engineering
Mechatronics Department

University of Debrecen
Engineering Faculty
Electrical Engineering and
Mechatronics Department

Valid starting with the academic year
2011/2012
since 1 year

Area: **MECHATRONICS AND ROBOTICS**
Program of study: **ADVANCED MECHATRONICS SYSTEMS (MASTER)**
Form of teaching: daily
Duration of study: 2 years

CURRICULUM

Code	Discipline	Type	Semester 01				Total hours	Type of examination	Credits
			C	S	L	P			
	MANDATORY DISCIPLINES								
UO.IMT.M-AMS.01.01	Advances in Mechatronics	DA	2	-	1	-	42	Ex	6
UO.IMT.M-AMS.01.02	Materials and Machine Parts for Mechatronics	DA	2	-	1	-	42	Cv	6
UO.IMT. M-AMS.01.03	Electrical Actuators	DA	2	-	1	1	56	Ex	9
UO.IMT. M-AMS.01.04	CAD for Mechatronics	DA	2	-	1	1	56	Ex	9
	TOTAL		112	-	56	28	196		30



Code	Discipline	Type	Semester 02				Total hours	Type of examination	Credits
			C	S	L	P			
	<i>MANDATORY DISCIPLINES</i>								
UO.IMT. M-AMS.02.01	Modeling and Simulation of Mechatronics System	DA	2	-	1	-	42	Cv	6
UO.IMT. M-AMS.02.02	PLC Programming	DA	1	-	1	1	42	Ex	6
UO.IMT. M-AMS.02.03	Mechatronics Control Systems	DA	2	-	1	-	42	Ex	6
UO.IMT. M-AMS.02.04	Robot and CNC Programming	DCA	3	-	1	-	56	Ex	9
UO.IMT. M-AMS.02.05	Project: Mechanical Design of a Mechatronic System	DS	-	-	-	1	14	Vp	3
	TOTAL		112	-	56	28	196		30



Code	Discipline	Type	Semester 03				Total hours	Type of examination	Credits
			C	S	L	P			
	MANDATORY DISCIPLINES								
UO.IMT. M-AMS.03.01	Management of Complex Production Systems	DA	2	-	-	-	28	Vp	4
UO.IMT. M-AMS.03.02	Software Reliability Engineering	DCA	2	-	1	-	42	Ex	6
UO.IMT. M-AMS.03.03	Product Lifecycle Management	DCA	2	-	1		42	Ex	6
UO.IMT. M-AMS.03.04	Project: Design of Control System and Algorithms for the Chosen Mechanical Design	DS	-	-	-	1	14	Vp	3
UO.IMT. M-AMS.03.05	Project: Study of the Designed Product Lifecycle	DS	-	-	-	1	14	Vp	3
	OPTIONAL DISCIPLINES								
	Optional 1	DCA	1	-	1	-	28	Cv	4
UO.IMT. M-AMS.02.06	Finite Element Analysis								
UO.IMT. M-AMS.02.07	Multibody Systems								
	Optional 2	DCA	1	-	1	-	28	Cv	4
UO.IMT. M-AMS.03.05	Diagnosis and Maintenance of Mechatronics Systems								
UO.IMT. M-AMS.03.06	Dynamic Parameters Measurements								
	TOTAL		112	-	56	28	196		30



Code	Discipline	Type	Semester 04				Total hours	Type of examination	Credits
			C	S	L	P			
	MANDATORY DISCIPLINES								
UO.IMT.M-AMS.04.01	Preparation of the dissertation paper	DS	-	-	-	14	196		30
	TOTAL		-	-	-	196	196		30
UO.IMT.M-AMS.04.02	Presentation of the dissertation paper								10

Year	Teaching activities		Exams sessions					Vacations		
	sem. I	sem. II	Winter	Winter outstanding exams	Sumer	outstanding exams	Fall outstanding exams	Winter	Spring	
I	14	14	3	1	3	1	2	2	1	10
II	14	14	3	1	2	1		2	1	-