

Transilvania University of Braşov, Romania

Study program: Mobile Applications and Internet Technologies in e-Business

Faculty: Mathematics and Computer Science

Study period: 2 years (master)

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Integrated software and hardware systems	MITB.I.01	4	1	2		

Course description (Syllabus): Knowledge on the development of integrated System-on-Chip and methods of developing and validation of digital systems; Developing HW/SW integrated systems; Partial functions

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Embedded System	MITB.I.02	4	2	1		

Course description (Syllabus): Developing professional projects using informatic methods and principles; Project based learning; Hardware environment

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Intelligent Networks	MITB.I.03	4	2	1		

Course description (Syllabus): Integration services based on the latest software techniques; Event management techniques based on control by state; Assessment of quality of service, security and access policy; Developing user interfaces for e-Services

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Network Algorithms	MITB.I.04	4	2	1		

Course description (Syllabus): Notions about distributed computing systems, parallel algorithms, middleware, web services; Socket programming; Web services; Using distributes algorithms

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Efficient Graph Algorithms	MITB.I.05	4	2	1		

Course description (Syllabus): Maximal flows and minimum cuts in networks; Minimal flows in networks

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
ABAP OO	MITB.I.06	4	2		1	

Course description (Syllabus): Classes, attributes, methods ; Inheritance in OOP ; Polymorphism ; Interfaces, events ; Defining of an OO application; Implementing an OO application

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Optional 1	MITB.I.07	4	2	-	1	

Course description (Syllabus): Various courses are proposed by members from the Department and by the professors from the partner universities from Germany or England; after an election process, the most popular choice is taught.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Optional 2	MITB.I.08	4	2	-	1	

Course description (Syllabus): Various courses are proposed by members from the Department and by the professors from the partner universities from Germany or England; after an election process, the most popular choice is taught.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Web Technologies in Media	MITB.I.09	5	2		1	

Course description (Syllabus): Advanced elements with Photoshop; HTML5 , Bootstrap and AngularJS; Advanced elements in JavaScript; Animation with Python; Project developing;

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Mobile and Internet Databases	MITB.I.10	5	2		1	

Course description (Syllabus): Design of mobile databases in Internet; Distributed databases administration; Cloud databases; Performance of distributed databases; Connecting mobile devices to distributed databases.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
POO – Simulation und Games	MITB.I.11	5	2		2	

Course description (Syllabus): Fractal Theory in simulation; Machin learning and R- programming; Processing with Android; Advanced animation with Greenfoot;

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Optional 3	MITB.I.12	4	2	1	-	

Course description (Syllabus): Various courses are proposed by members from the Department and by the professors from the partner universities from Germany or England; after an election process, the most popular choice is taught.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Optional 4	MITB.I.13	5	2	2	-	

Course description (Syllabus): Various courses are proposed by members from the Department and by the professors from the partner universities from Germany or England; after an election process, the most popular choice is taught.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Optional 5	MITB.I.14	4	2	1	1	

Course description (Syllabus): Various courses are proposed by members from the Department and by the professors from the partner universities from Germany or England; after an election process, the most popular choice is taught.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Legal issues in Internet and Marketing	MITB.II.01	4	1	1		

Course description (Syllabus): Applicable legislation in the field of technology information and Internet; Network security and public information; Marketing activities in digital environment; Information systems vulnerability

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Techniques of drafting the dissertation work	MITB.II.02	4	1	1		

Course description (Syllabus): Methods of preparation of dissertation; Using LaTeX in preparation of dissertation thesis; Logical structure of a document; Paragraph and Math views.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Communication in Virtual Team (CMC)	MITB.II.03	4	1		2	

Course description (Syllabus): Fundamentals of computer-assisted communication; Research methods in CMC; Strategies for remote communication; Distributed software projects; Project management in distributed teams; Performance management in virtual teams; Intercultural management.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Develop dissertation thesis and preparation the dissertation exam	MITB.II.04	26	16			

Course description (Syllabus): Writing the dissertation thesis.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Optional 6	MITB.II.05	22	3	6		

Course description (Syllabus): Various courses are proposed by members from the Department and by the professors from the partner universities from Germany or England; after an election process, the *most popular choice is taught*.