

Transilvania University of Braşov, Romania

Study program: Automation and Applied Informatics

Curriculum for ERASMUS + students

Faculty: Electrical Engineering and Computer Science
 Study period: 4 years (bachelor)
 Academic year structure: 2 semesters (14 weeks per semester)
 Examination sessions (two): winter session (January/February)
 summer session (June/July)

Courses per years (C= course; S = seminar; L = laboratory; P = project)

1st Year

No. crt.	Course	Code	Language of instruction	1 st Semester					2 nd Semester					
				C	S	L	P	Cred	C	S	L	P	Cred	
01	Mathematical Analysis	AI0101	Romanian	3	2			6						
02	Linear Algebra, Analytical and Differential Geometry	AI0102	Romanian	3	2			6						
03	Computer Programming and Programming Languages I	AI0103	Romanian	3		3		6						
04	Discrete Mathematics	AI0104	Romanian	2	1			4						
05	Web Technologies	AI0105	Romanian	1		2		4						
06	Computer Programming and Programming Languages II	AI0206	Romanian						2		2			5
07	Special Mathematics	AI0207	Romanian						3	2				6
08	Electrotechnics	AI0208	Romanian						3	2				6
09	Data Processing	AI0209	Romanian						2		2			4
10	Physics	AI0210	Romanian						3		1			4
11	Computer-Aided Graphics	AI0211	Romanian						1		2			3
12	Communication Skills	AI0112	Romanian	1	1			2						
13	English	LE01/LE02	Romanian	1	1			2	1	1				2
14	Physical Training	EF01/EF02	Romanian		1			1		1				1

2nd Year

No. crt.	Course	Code	Language of instruction	3 rd Semester					4 th Semester					
				C	S	L	P	Cred	C	S	L	P	Cred	
01	Systems Theory I	AI0301	Romanian	2	1	1		5						
02	Robotics	AI0302	Romanian	2		2		5						
03	Linear Electronic Circuits	AI0303	Romanian	3		1	1	5						
04	Numerical Methods	AI0304	Romanian	2		2		5						
05	Algorithms	AI0305	Romanian	2		1	1	4						
06	Measurements and Transducers	AI0306	Romanian	2		2		4						
07	Systems Theory II	AI0407	Romanian						2	1	1			4
08	Discrete Systems	AI0408	Romanian						2	1	1			5
09	Digital Circuits I	AI0409	Romanian						2	1	1	1		5
10	Computer Programming and Programming Languages III	AI0410	Romanian						2		2			4

11	Digital Electronics	AI0411	Romanian						2		1		3
12	Signal Processing	AI0412	Romanian						2		1		3
13	English	LE03/LE04	Romanian	1	1			2	1	1			2
14	Physical Training	EF03/EF04	Romanian		1			1		1			1
15	Domain Practice Activity	AI0415	Romanian						3 weeks / 90 hours				4

3rd Year

No. crt.	Course	Code	Language of instruction	5 th Semester					6 th Semester					
				C	S	L	P	Cred	C	S	L	P	Cred	
01	Digital Circuits II	AI0501	Romanian	2	1	1	1	6						
02	Computers Architecture	AI0502	Romanian	3		2		6						
03	System Identification	AI0503	Romanian	2	1	1		5						
04	Control Engineering	AI0504	Romanian	3	1	2		5						
05	Control Engineering - Project	AI0605	Romanian									2	2	
06	Electrical Machines and Drives	AI0606	Romanian						2		2		4	
07	Microprocessor Systems	AI0607	Romanian						2		2		4	
08	Databases	AI0608	Romanian						2		2		4	
09	Programmable Logic Controllers	AI0609	Romanian						2		2		4	
10	Computer Networks	AI0610	Romanian						2		2		4	
11	Operating Systems	AI0511	Romanian	2		2		4						
12	Artificial Intelligence Techniques	AI0512	Romanian	2		2		4						
13	Programmable Logic Circuits	AI0613	Romanian						2		1	1	4	
14	Specialized Practice Activity	AI0614	Romanian						3 weeks / 90 hours				4	

4th Year

No. crt.	Course	Code	Language of instruction	7 th Semester					8 th Semester					
				C	S	L	P	Cred	C	S	L	P	Cred	
01	Microprocessor Systems - Project	AI0701	Romanian				2	2						
02	Robust and Adaptive Systems	AI0702	Romanian	2		2		5						
03	Optimization	AI0703	Romanian	2		1		4						
04	Machine Vision Systems	AI0704	Romanian	2		2		4						
05	Fuzzy Control Systems	AI0705	Romanian	2		1	1	4						
06	Discrete-Events Dynamic Systems	AI0506	Romanian	2		2		5						
07	Software Engineering	AI0807	Romanian						2		1	1	4	
08	Control Systems for Technological Processes	AI0808	Romanian						2		1		3	
09	Parallel and Distributed Processing	AI0809	Romanian						2		2		4	
10	Industrial Communication Networks	AI0810	Romanian						2		2		4	
11	Electrical Drives Control	AI0711	Romanian	2		1		3						
	Electrical Servo Systems													
12	Data Security	AI0712	Romanian	2		1		3						
13	Reliability and Diagnosis	AI0813	Romanian						2		1		3	
14	Electrohydraulic Servo Systems	AI0814	Romanian						2		2		4	
15	Elaboration of the Diploma Project	AI0815	Romanian						56 hours				4	
16	Practice Activity for Bachelor Degree Project	AI0816	Romanian						2 weeks / 60 hours				4	