

**Transilvania University of Brașov, 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)**

**1<sup>st</sup> Year**

No. crt.	Course	Code	Language of instruction	1 <sup>st</sup> Semester					2 <sup>nd</sup> Semester				
				C	S	L	P	Cred	C	S	L	P	Cred
01	Mathematical Analysis	AI0101	Romanian	3	2			5					
02	Linear Algebra, Analytical and Differential Geometry	AI0102	Romanian	3	2			5					
03	Computer Programming and Programming Languages I	AI0103	Romanian	3		3		5					
04	Discrete Mathematics	AI0104	Romanian	2	1			5					
05	Web Technologies	AI0105	Romanian	1		2		5					
06	Communication Skills. Ethics and academic integrity	AI0106			1	1		2					
07	Computer Programming and Programming Languages II	AI0207	Romanian						2		2		5
08	Special Mathematics	AI0208	Romanian						3	2			5
09	Electrotechnics	AI0209	Romanian						3	2			5
10	Physics	AI0210	Romanian						3		1		5
11	Data Processing	AI0211	Romanian						2		2		4
12	Computer-Aided Graphics	AI0212	Romanian						1		2		3
13	English 1-2	LE01/LE02	Romanian	1	1			2	1	1			2
14	Physical Training 1-2	EF01/EF02	Romanian		1			1		1			1

**2<sup>nd</sup> Year**

No. crt.	Course	Code	Language of instruction	3 <sup>rd</sup> Semester					4 <sup>th</sup> 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		4					
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	Signal Processing	AI0411	Romanian						2		2		3
12	Digital Electronics	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

### 3<sup>rd</sup> Year

No. crt.	Course	Code	Language of instruction	5 <sup>th</sup> Semester					6 <sup>th</sup> Semester				
				C	S	L	P	Cred	C	S	L	P	Cred
01	Digital Circuits II	AI0501	Romanian	2	1	1	1	5					
02	Computers Architecture	AI0502	Romanian	3		2		5					
03	Control Engineering	AI0503	Romanian	3	1	2		5					
04	System Identification	AI0504	Romanian	2	1	1		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		5					
12	Artificial Intelligence Techniques	AI0512	Romanian	2		2		5					
13	Programmable Logic Circuits	AI0613	Romanian						2		1	1	4
14	Specialized Practice Activity	AI0614	Romanian									3 weeks / 90 hours	4

### 4<sup>th</sup> Year

No. crt.	Course	Code	Language of instruction	7 <sup>th</sup> Semester					8 <sup>th</sup> 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		5
10	Industrial Communication Networks	AI0810	Romanian						2		2		4
11	Electrical Drives Control	AI0711	Romanian	2		1		3					
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	Web Application Programming	AI0815	Romanian						1		2		3
16	Elaboration of the Diploma Project	AI0816	Romanian									120 hours	4