Transilvania University of Braşov, Romania

Study program: Information Technology

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	1st Semester					2nd Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Communication	CT0101	1	2	0	0	3					
02	Introduction to computers and information technology	CT0102	1	0	2	0	4					
03	Analysis	CT0103	3	2	0	0	6					
04	Linear algebra, analytical and differential geometry	CT0104	3	2	0	0	6					
05	Computer programming and programming languages I	CT0105	3	0	3	0	6					
06	Computer-assisted graphics	CT0106	0	0	2	0	3					
07	Calculus	CT0209						3	2	0	0	6
08	Electrotechnics	CT0210						4	2	0	0	7
09	Probability theory and mathematical statistics	CT0211						2	1	0	0	4
10	Physics	CT0212						3	1	1	0	6
11	Computer programming and programming languages II	CT0213						2	0	3	1	5
12	Foreign languages	LE01/ LE02	1	1	0	0	2	1	1	0	0	2
13	Physical and sports	LF01/ LF02	0	1	0	0	1	0	1	0	0	1

2nd Year

No. crt.	Course	Code	3rd Semester					4th Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Systems theory	CT0301	3	2	0	0	5					
02	Electronic measurements, sensors and transducers	CT0302	1	0	3	0	6					
03	Electronic devices and analog electronics	CT0303	3	2	0	0	6					
04	Data structures and algorithms	CT0304	2	0	1	2	5					
05	Signal processing	CT0305	3		2	0	6					
06	Algorithm design	CT0407						2	0	2	0	4

07	Digital electronics	CT0408						4		2	0	5
08	Computer graphics elements	CT0409						2	0	2	1	5
09	Computer programming and programming languages III	CT0410						2	0	2	0	4
10	Logical programming and functional programming	CT0411						1	0	1	0	2
11	Domain practice (90 hours)	CT0413										4
12	Object-oriented programming	CT0415						2		2	0	4
13	Foreign languages	LE01/ LE02	1	1	0	0	2	1	1	0	0	2
14	Physical and sports	LF01/ LF02	0	1	0	0	1	0	1	0	0	1

3rd Year

No. crt.	Course	Code	5th Semester					6th Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Data acquisition and processing	TI0609	2		2	1	4					
02	Computing systems architecture	AI0502	3		2	0	5					
03	Modeling and simulation	AI0503	3	1	1	0	6					
04	Operating systems	TI0504	2		2	0	5					
05	Databases	AI0510	2		2	0	5					
06	Computer networks	TI0606						2		3		4
07	Microprocessor systems	TI0607						2		2	1	5
08	Intelligent systems	AI0608						3		2		5
09	Parallel programming	AI0608						2		1	1	4
10	Field practice II (90 hours)	TI0610										4
11	(O1) Robot steering systems	TI0511	2		2		5					
11	(O1) Compilers	TI0512	2		2		5					
12	(O2) Image processing	TI0613						2		2		4
12	(O2) Graphic processing	TI0614						2		2		4
13	(O3) Web programming	TI0615						2		2		4
13	(O3) CAD / CASE systems	TI0616						2		2		4

4th Year

No. crt.	Course	Code	7 th Semester					8th Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Embedded systems	TI0701	2		2		6					
02	Machine learning	TI0702	2	1	3		6					
03	Cryptography	TI0703	2		2	1	6					
04	Artificial intelligence	TI0804						2		1		3
05	Program engineering	TI0805						2		1	1	3
06	Software project management	TI0806						2		2		3
07	Computer-assisted training	TI0807	2		2	1	4					
08	Forms recognition systems	EG*809						2	1			3
09	Elaboration of the diploma project	TI0819									4	4
10	Practice for the diploma project	TI0808						2 sapt x 30 hours				6
11	(O1) Virtual instrumentation	TI0709						2		2		3
11	(O1) Testing of computer systems	TI0710										

12	(02) Local networks	TI0711						2		2		3
12	(02) Input-output systems and peripheral equipment	TI0712										
13	(03) Human-computer interaction	TI0813	2		2		4					
13	(03) Design of user interfaces	TI0814										
14	(04) Information security	TI0715	2		2		4					
14	(04) Network design	TI0716										
15	(05) Fault tolerant systems	TI0817						1		1		2
15	(05) Software reliability	TI0818										