

Transilvania University of Brașov, Romania  
Study program: Electrical Engineering and Computers  
(in English)

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)

1<sup>st</sup> Year

No. crt.	Course	1 <sup>st</sup> Semester					2 <sup>nd</sup> Semester				
		C	S	L	P	Cred	C	S	L	P	Cred
01	Math.Analisy	3	2			5					
02	Linear Algebra and Analytic Geometry	2	2			5					
03	Applied computer science	2	1			3					
04	Computer assisted graphics	2	2			4					
05	Physics	2	1	2		5					
06	Computer Programming and Programming Languages I	2		2		5					
07	German language I	1	1			2					
08	Physical Training I		1			1					
09	Web programming						2		2	1	4
10	Ethics and Academic integrity						1		1		3
11	Special Mathematics						3	3			5
12	Computer Programming and Programming Languages II						2		3		5
13	Computer Programming and Programming Languages III						2		2		5
14	German language II						1	1			2
15	Physical Training I							1			1
16	Electromagnetic Field Theory I						2	2			5

2<sup>nd</sup> Year

No. crt.	Course	3 <sup>rd</sup> Semester					4 <sup>th</sup> Semester				
		C	S	L	P	Cred	C	S	L	P	Cred
01	Math. Fundamentals of Computers	1	1			3					
02	Computer Programming and Programming Languages III	2		2		4					
03	Energy sources	2		2		5					
04	System Theory	3	2			6					
05	Electromagnetic Field Theory	3	2	1		6					
06	German language III	1	1			2					
07	Physical Training III			1			1				
08	Numerical methods	2		2		4					

09	Electric and electronic Measurements					2		2		4
10	Electronics I					3	2	1		5
11	Object-oriented programming					1		3		3
12	Electrical Circuits Theory					3	3			7
13	Electrotechnical Materials					2		2		3
14	Object-oriented programming								1	2
15	German language IV					1	1			2
16	Physical Training IV						1			1
17	Practice in the electrical field									4

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

No. crt.	Course	5 <sup>th</sup> Semester					6 <sup>th</sup> Semester				
		C	S	L	P	Cred	C	S	L	P	Cred
01	Switchgear equipments	3		3		6					
02	Static converters	2		2		5					
03	Electrical machines I	2		2		4					
04	Analog Integrated Circuits	2	1	1		4					
05	Data Bases	1		2		3					
06	Electrical machines I					1	2				
07	Numerical Signal Processing						2	2			3
08	Sensors and Data acquisitions						2	2			4
09	Microcontrollers						2	2			4
10	Electrical machines II						2	2			4
11	Electronics II						2	2			3
12	Data acquisitions									1	2
13	Specialized practice										4
<b>A3 Optional selected courses</b>											
14	Power Electronic Circuits Simulations	2		1		3					
15	Microsensors and actuators	+		+		+					
		2		1		3					
<b>B3 Optional selected courses</b>											
16	Computer architecture						2		1		3
17	Computer Interfaces and Peripherals						+		+		+
							2		1		3

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

No. crt.	Course	7 <sup>th</sup> Semester					8 <sup>th</sup> Semester				
		C	S	L	P	Cred	C	S	L	P	Cred
01	Electrical Drives	2	1	2		5					
02	Graphical user interfaces design	2		1		4					
03	Electrical Installations	2		1	1	4					
04	Electromagnetic compatibility	2		3		5					
05	Monitoring and diagnosis of electrotechnical equipment	2		1		4					
06	Management						2			2	5
07	Industrial Control						3		3		6
08	Data Transmission & Protocols						2		2		5

9	Practical for diploma project elaboration										4
10	Diploma project elaboration										4
<b>A4 Optional courses</b>											
(2 courses out of 4 are chosen)											
11	CAD for electrical engineering I	2		2		4					
+	Operating systems	+		+		+					
12		2		2		4					
<b>B4 Optional courses</b>											
(2 courses out of 4 are chosen)											
13	Software Engineering						1		2		3
+	CAD for electrical engineering II						+		+		+
14							1		2		3