

# Transilvania University of Braşov, Romania

## Study program: Applied Computer Science

Faculty: Mathematics and Computer Science  
 Study period: 3 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

#### 1<sup>st</sup> Year

No. crt.	Course	Code	Semester I					Semester II				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Mathematical Analysis	AP01	3	2			6					
02	Basic algebra for computer science	AG13	2	2			5					
03	Basic Algorithms	IT11	2	1	2		6					
04	Basic Programming	IT12	2		2		6					
05	Mathematical and Computational Logic	IT13	2	1			5					
06	English Language (1)	MIE1	1	1			2					
	French Language (1)	MIF1										
	Spanish Language (1)	MIP1										
	German Language (1)	MIG1										
07	Sport (1)	MIS1		1			1					
08	Linear Algebra, Analytical and Differential Geometry	AG03						2	2			5
09	Computer Systems Architecture	IT21						2	1	1		5
10	Object Oriented Programming	IT22						2		2		6
11	Data Structures	IT23						2		2		6
12	Operating Systems	IA21						2		2		6
13	English Language (2)	MIE2							2			2
	French Language (2)	MIF2										
	Spanish Language (2)	MIP2										
	German Language (2)	MIG2										
14	Sport (2)	MIS2							1			1

#### 2<sup>nd</sup> Year

No. crt.	Course	Code	Semester III					Semester IV				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Differential equations and dynamical systems	AG14	2	2			5					
02	Graph algorithms	IT31	2	1	1		6					

03	Formal Languages and Automata Theory	IT32	2	1	1		6					
04	Object Oriented Programming 2	IA31	2		2		6					
05	Databases	IT33	2		2		5					
06	English Language (3)	MIE3	1	1			2					
	French Language (3)	MIF3										
	German Language (3)	MIG3										
	Spanish Language (3)	MIP3										
07	Sport (3)	MIS3		1			1					
08	Computational Intelligence	IA41						2		2		5
09	Computer Graphics and Image Processing	IA42						2		2		5
10	Visual programming	IA43						2		2		5
11	Computer networks	IA44						2		2		5
12	English Language (4)	MIE4							2			2
	French Language (4)	MIF4										
	German Language (4)	MIG4										
	Spanish Language (4)	MIS4										
13	Optional (1)	IA45						2		2		4
14	Optional (2)	IA46						2		2		4
15	Sport (4)	EF04							1			1

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

No. crt.	Course	Code	Semester V					Semester VI				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Software Engineering	IA51	2		2		5					
02	Technologies for web applications development using PHP	IA52	2		2		5					
03	Linux Programming	IA53	2		2		5					
04	Distributed programming	IT53	2		2		5					
05	Practical Placement within Companies	IA54					5					
06	Optional (3)	IA65	2		2		5					
07	IT Security	IA61						2		2		5
08	IT Project Management	IA62						2		2		5
09	Practical Coordination for Bachelor Thesis	IA63									4	5
10	Database Systems (MySQL, Oracle)	IA64						2		2		5
11	Optional (4)	IA66						2		2		5
12	Optional (5)	IA67						2		2		5