

# Transilvania University of Brasov, Romania

## Study program: Mathematics and 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 (C= course; S = seminar; L = laboratory; P = project)

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

No. crt.	Course	Code	1 <sup>st</sup> Semester					2 <sup>nd</sup> Semester					
			C	S	L	P	Cred	C	S	L	P	Cred	
1.	Real Analysis	AMR1	3	3			7						
2.	Synthetic Geometry	GES1	2	2			5						
3.	Algebra	ALG1	2	2			5						
4.	Algorithmic and Programming	IAP1	2	1	2		5						
5.	Data Structures	SD1	2		1		4						
6.	English Language (1)	LE1	1	1			2						
7.	Academic Writing	SA1	1		1		2						
8.	Mathematical Analysis	AMA1						3	3				7
9.	Analytical Geometry	GEA2						2	2				6
10.	Object Oriented Programming	IPO3						2		2			5
11.	Algebraic Structures	ALG2						2	2				5
12.	Computer Networks	RC1						2		2			5
13.	English Language (2)	LE2						1	1				2
14.	Physical Education and Sport 1	EF1							2				2

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

No. crt.	Course	Code	3 <sup>rd</sup> Semester					4 <sup>th</sup> Semester					
			C	S	L	P	Cred	C	S	L	P	Cred	
1.	Differential equations	ED1	2	2			6						
2.	Differential geometry	GED3	2	2			6						
3.	Complex Analysis	ANC3	2	2			6						
4.	Logic and set theory	LOG3	2	2			6						
5.	Physical Education and Sport 2	EF2		2			2						
6.	Java Programming	PJ1	2		2		5						
7.	Data Bases	BD1						2		2			5
8.	Numerical analysis	AMN1						2	1	1			5
9.	Measure theory	AMM5						2	2				5
10.	Partial differential equations	ECP2						2	2				5
11.	Theoretical Mechanics	MT4						2	2				5
12.	Financial Mathematics	MF4						2		2			5

### 3<sup>st</sup> Year

No. crt.	Course	Code	5 <sup>th</sup> Semester					6 <sup>th</sup> Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
1.	Probabilities	AMP6	2	1	1		5					
2.	Functional Analysis	AMF7	2	2			5					
3.	Optimization Technics	ALG4	2	2			5					
4.	Mathematics software	MMA	2		1		5					
5.	Abstract algebra	ALG5	2	2			5					
6.	Practice	PRAC				8	5					
7.	Differential manifolds	GED4						2	2			5
8.	Complements of Mathematical Analysis	AM10						2	2			5
9.	Mathematical statistics	AMS8						2	1	1		5
10.	Mathematical models for Machine Learning	MMML						2		2		5
11.	Practical Coordination for Bachelor Thesis	ELLC									4	5