

CURRICULUM **
Year of study I

Code	Disciplines*	Type	Sem. I [hours / week]				Total of hours / sem.	Type of Exami- nation	Cre- dits	IS [hours / sem.]	Condi- tioning
			C	S	L	P					
	OBLIGATORII IMPUSE										
STII-0002	Algebra I	FD	2	2	-	-	56	Ex	6	94	
STII-0010	Mathematical analysis I	FD	2	2	-	-	56	Ex	6	94	
STII-0730	Geometry I (Analytic geometry)	FD	2	2	-	-	56	Ex	6	94	
STII-0732	Algorithms and Programming	FD	2	1	2	-	70	Ex	6	80	
STII-0731	Mathematical logic and set theory	FD	2	2	-	-	56	Ex	5	69	
STII-0465	English I	CD	-	1	-	-	14	Vp	1	11	
	TOTAL		10	10	2	-	308		30	442	
STII-0651	Sport I	CD	-	1	-	-	14	A/R	3	61	

Code	Disciplines*	Type	Sem. II [hours / week]				Total of hours / sem.	Type of Exami- nation	Cre- dits	IS [hours / sem.]	Condi- tioning
			C	S	L	P					
	OBLIGATORII IMPUSE										
STII-0003	Algebra II	FD	2	2	-	-	56	Ex	5	69	
STII-0011	Mathematical analysis II	FD	2	2	-	-	56	Ex	5	69	
STII-0762	Geometry II (Afine geometry)	FD	2	2	-	-	56	Ex	5	69	
STII-0256	Graph algorithms	CD	2	1	2	-	70	Ex	6	80	
STII-0061	Number theory	SD	2	2	-	-	56	Ex	5	69	
STII-0786	Traineeship I	SD	-	-	-	-	60	Cv	3	15	
STII-0466	English II	CD	-	1	-	-	14	Vp	1	11	
	TOTAL		10	10	2	-	368		30	382	
STII-0652	Sport II	CD	-	1	-	-	14	A/R	3	61	

Legend: C - Course; S - Seminar; L - Practical (laboratory); P - Project; IS - Individual Study;
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Head of departament ,
 Head of Department PhD. Sorin Nicolae MUREȘAN

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CURRICULUM **
Year of study II

Code	Disciplines*	Type	Sem. III [hours / week]				Total of hours / sem.	Type of Exami- nation	Cre- dits	IS [hours / sem.]	Condi- tioning
			C	S	L	P					
	OBLIGATORII IMPUSE										
STII-0004	Algebra III	FD	2	2	-	-	56	Ex	6	94	
STII-0035	Differential equations	FD	2	3	-	-	70	Ex	6	80	
STII-0041	Differential geometry	SD	2	2	-	-	56	Ex	6	94	
STII-0736	Numerical analysis	SD	2	2	-	-	56	Cv	5	69	
STII-0014	Real analysis	FD	2	2	-	-	56	Ex	6	94	
STII-0467	English III	CD	-	1	-	-	14	Vp	1	11	
	TOTAL		10	12	-	-	308		30	442	
STII-0653	Sport III	CD	-	1	-	-	14	A/R	3	61	

Code	Disciplines*	Type	Sem. IV [hours / week]				Total of hours / sem.	Type of Exami- nation	Cre- dits	IS [hours / sem.]	Condi- tioning
			C	S	L	P					
	OBLIGATORII IMPUSE										
STII-0737	Special chapters of geometry	SD	2	2	-	-	56	Ex	5	69	
STII-0007	Complex analysis	FD	2	3	-	-	70	Ex	5	55	
STII-0738	Probability theory	FD	2	2	-	-	56	Ex	5	69	
STII-0787	Traineeship II	SD	-	-	-	-	60	Cv	3	15	
STII-0468	English IV	CD	-	1	-	-	14	Vp	1	11	
	TOTAL		6	8	-	-	256		19	219	
	OBLIGATORII OPȚIONALE										
	PACHET 1										
STII-0060	Category theory	SD	2	2	-	-	56	Ex	5	69	
STII-0739	Special chapters of algebra	SD	2	2	-	-	56	Ex	5	69	
	PACHET 2										
STII-0111	Mathematical software	SD	2	2	-	-	56	Cv	5	69	
STII-0593	Special chapters of mathematical analysis	SD	2	2	-	-	56	Cv	5	69	
	PACHET 3										
STII-0765	Academic Ethics and Integrity	CD	1	-	-	-	14	Cv	1	11	
STII-0794	Antreprenorship in Natural Sciences Domain	CD	1	-	-	-	14	Cv	1	11	
	TOTAL		5	4	-	-	126		11	149	
STII-0654	Sport IV	CD	-	1	-	-	14	A/R	3	61	
	FACULTATIVE										
STII-0740	Financial and Actuarial Mathematics	CD	1	1	-	-	28	Cv	3	47	

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Year of study III

Code	Disciplines*	Type	Sem. V [hours / week]				Total of hours / sem.	Type of Exami- nation	Cre- dits	IS [hours / sem.]	Condi- tioning
			C	S	L	P					
	OBLIGATORII IMPUSE										
STII-0034	Partial differential equations	SD	2	2	-	-	56	Ex	6	94	
STII-0741	Mathematical statistics	SD	2	2	-	-	56	Ex	6	94	
STII-0065	Functional analysis	SD	2	2	-	-	56	Ex	6	94	
STII-0087	Fixed point theorems	SD	2	2	-	-	56	Ex	5	69	
	TOTAL		8	8	-	-	224		23	351	
	OBLIGATORII OPȚIONALE										
	PACHET 1										
STII-0742	Minimax theorems	SD	2	2	-	-	56	Ex	5	69	
STII-0008	Convex analysis	SD	2	2	-	-	56	Ex	5	69	
	PACHET 2										
STII-0744	History of mathematics	CD	1	1	-	-	28	Cv	2	22	
STII-0728	Professional and scientific editing and communication	SD	1	1	-	-	28	Cv	2	22	
	TOTAL		3	3	-	-	84		7	91	
	FACULTATIVE										
STII-0746	Writing mathematical works in LaTeX	CD	1	-	1	-	28	Cv	3	47	
STII-0792	Life skills	CD	1	-	-	-	14	Vp	1	11	
STII-0793	Career Coaching	CD	1	-	-	-	14	Vp	1	11	

Code	Disciplines*	Type	Sem. VI [hours / week]				Total of hours / sem.	Type of Exami- nation	Cre- dits	IS [hours / sem.]	Condi- tioning
			C	S	L	P					
	OBLIGATORII IMPUSE										
STII-0053	Theoretical mechanics	FD	2	2	-	-	48	Ex	6	102	
STII-0413	Elaboration of degree theses	SD	-	2	-	-	24	A/R	3	51	
	TOTAL		2	4	-	-	72		9	153	
	OBLIGATORII OPȚIONALE										
	PACHET 1										
STII-0015	Astronomy	SD	2	2	-	-	48	Cv	5	77	
STII-0079	Fluid mechanics	SD	2	2	-	-	48	Cv	5	77	
	PACHET 2										
STII-0594	Fuzzy mathematics	CD	2	2	-	-	48	Ex	6	102	
STII-0267	Artificial intelligence	CD	2	2	-	-	48	Ex	6	102	
	PACHET 3										
STII-0082	Mathematical modeling	CD	2	2	-	-	48	Cv	5	77	
STII-0100	Fractal theory	CD	2	2	-	-	48	Cv	5	77	
	PACHET 4										
STII-0032	Operatorial researches	SD	2	2	-	-	48	Ex	5	77	
STII-0613	Optimization techniques	SD	2	2	-	-	48	Ex	5	77	
	TOTAL		8	8	-	-	192		21	333	

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VIII. DISTRIBUTION OF CREDITS ACCORDING TO COMPETENCES (TABLES NRQHE /ARACIS - Grid 1 *)

No.	Discipline**	Sem.	Number of credits	Professional Competences					Transversal Competences		
				C1	C2	C3	C4	C5	CT1	CT2	CT3
1.	Algebră I	I	6	3		1		2			
2.	Analiză matematică I	I	6	2		2		2			
3.	Geometrie I (Geometrie analitică)	I	6	1		2	1	2			
4.	Algoritmi și programare	I	6		3	3					
5.	Logică matematică si teoria mulțimilor	I	5	2			1	2			
6.	Limba engleză I	I	1								1
7.	Educație fizică I	I	3						1	1	1
8.	Algebră II	II	5	2		1		2			
9.	Analiză matematică II	II	5	2		1		2			
10.	Geometrie II (Geometrie afină)	II	5	2		1		2			
11.	Algoritmica grafurilor	II	6		3	2	1				
12.	Teoria numerelor	II	5	2	1	2					
13.	Practică de specialitate I	II	3	1		1	1				
14.	Limba engleză II	II	1								1
15.	Educație fizică II	II	3						1	1	1
16.	Algebră III	III	6	2		2		2			
17.	Ecuatii diferențiale	III	6	2		2	1	1			
18.	Geometrie diferențială	III	6	2		2		2			
19.	Analiză numerică	III	5		2	2	1				
20.	Analiză reală	III	6	2		2		2			
21.	Limba engleză III	III	1								1
22.	Educație fizică III	III	3						1	1	1
23.	Capitole speciale de geometrie	IV	5	2		2		1			
24.	Analiză complexă	IV	5	2		1		2			
25.	Teoria probabilităților	IV	5	2	1		1	1			
26.	Practică de specialitate II	IV	3	1		1	1				
27.	Limba engleză IV	IV	1								1
28.	Educație fizică IV	IV	3						1	1	1
29.	Teoria categoriilor	IV	5	2		1		2			
30.	Capitole speciale de algebră	IV	5	2		1		2			
31.	Software matematic	IV	5	2		1	1	1			
32.	Capitole speciale de analiză matematică	IV	5	2		1	1	1			
33.	Etică și integritate academică	IV	1							1	
34.	Antreprenoriat în domeniul Științe ale naturii	IV	1							1	
35.	Matematici financiare și actuariale	IV	3			1	1				1
36.	Ecuatii cu derivate parțiale	V	6	1	2	1	1	1			
37.	Statistică matematică	V	6	1	2	1	2				
38.	Analiză funcțională	V	6	3				3			
39.	Teoreme de punct fix	V	5	1	1		1	2			
40.	Teoreme minimax	V	5	1	1	1	1	1			
41.	Analiză convexă	V	5	1	1	1	1	1			
42.	Istoria matematicii	V	2						1	1	
43.	Redactare și comunicare științifică și profesională	V	2						1	1	
44.	Redactarea lucrărilor matematice în LaTeX	V	3	2							1
45.	Abilități de viață	V	1								1
46.	Coaching pentru carieră	V	1								1
47.	Mecanică teoretică	VI	6	1	1	1	1	2			
48.	Elaborarea lucrării de licență	VI	3	1		1		1			
49.	Astronomie	VI	5	1	1		2	1			
50.	Mecanica fluidelor	VI	5	2	1			2			
51.	Matematică fuzzy	VI	6	1	2		2	1			
52.	Inteligență artificială	VI	6	1	2		2	1			
53.	Modelare matematică	VI	5	1	1	1	1	1			
54.	Elemente de teoria fractalilor	VI	5	1	1	1	1	1			
55.	Cercetări operaționale	VI	5	2		1	1	1			
56.	Tehnici de optimizare	VI	5	2		1	1	1			

Legendă: C1 ÷ C5 sau C6 - Competențe profesionale; CT1 ÷ CT3 - Competențe transversale

* Se va utiliza Grila 1 (G1) care prezintă variantele: G1L si G1M corepunzătoare ciclurilor de studii de licență și masterat, în conformitate cu Ordinul MECS nr. 5703 / 18.10.2011.

** Se vor trece toate disciplinele din Planul de Învățământ