

**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					
	<b>OBLIGATORII IMPUSE</b>										
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	5	55	
STII-0731	Mathematical logic and set theory	FD	2	2	-	-	56	Ex	5	69	
STII-0465	English I	CD	-	1	-	-	14	Vp	2	36	
	<b>TOTAL</b>		<b>10</b>	<b>10</b>	<b>2</b>	<b>-</b>	<b>308</b>		<b>30</b>	<b>442</b>	
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					
	<b>OBLIGATORII IMPUSE</b>										
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	5	55	
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	2	36	
	<b>TOTAL</b>		<b>10</b>	<b>10</b>	<b>2</b>	<b>-</b>	<b>368</b>		<b>30</b>	<b>382</b>	
STII-0652	Sport II	CD	-	1	-	-	14	A/R	3	61	
	<b>FACULTATIVE</b>										
STII-0076	Computational geometry	CD	1	1	-	-	28	Cv	3	47	

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**Head of department ,**  
**Head of Department Ph.D. 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					
	<b>OBLIGATORII IMPUSE</b>										
STII-0004	Algebra III	FD	2	2	-	-	56	Ex	5	69	
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	2	36	
	<b>TOTAL</b>		<b>10</b>	<b>12</b>	<b>-</b>	<b>-</b>	<b>308</b>		<b>30</b>	<b>442</b>	
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					
	<b>OBLIGATORII IMPUSE</b>										
STII-0737	Special chapters of geometry	SD	2	2	-	-	56	Ex	4	44	
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	2	36	
	<b>TOTAL</b>		<b>6</b>	<b>8</b>	<b>-</b>	<b>-</b>	<b>256</b>		<b>19</b>	<b>219</b>	
	<b>OBLIGATORII OPȚIONALE</b>										
	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	
	<b>TOTAL</b>		<b>5</b>	<b>4</b>	<b>-</b>	<b>-</b>	<b>126</b>		<b>11</b>	<b>149</b>	
STII-0654	Sport IV	CD	-	1	-	-	14	A/R	3	61	
	<b>FACULTATIVE</b>										
STII-0740	Financial and Actuarial Mathematics	CD	1	1	-	-	28	Cv	3	47	

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**CURRICULUM \*\***  
**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					
<b>OBLIGATORII IMPUSE</b>											
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	
<b>TOTAL</b>			<b>8</b>	<b>8</b>	<b>-</b>	<b>-</b>	<b>224</b>		<b>23</b>	<b>351</b>	
<b>OBLIGATORII OPȚIONALE</b>											
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	
<b>TOTAL</b>			<b>3</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>84</b>		<b>7</b>	<b>91</b>	
<b>FACULTATIVE</b>											
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					
<b>OBLIGATORII IMPUSE</b>											
STII-0053	Theoretical mechanics	FD	2	2	-	-	48	Ex	6	102	
STII-0413	Elaboration of degree theses	SD	-	2	-	-	24	A/R	3	51	
<b>TOTAL</b>			<b>2</b>	<b>4</b>	<b>-</b>	<b>-</b>	<b>72</b>		<b>9</b>	<b>153</b>	
<b>OBLIGATORII OPȚIONALE</b>											
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	
<b>TOTAL</b>			<b>8</b>	<b>8</b>	<b>-</b>	<b>-</b>	<b>192</b>		<b>21</b>	<b>333</b>	

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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
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	5		2	3				
5.	Logică matematică si teoria mulțimilor	I	5	2			1	2		
6.	Limba engleză I	I	2							2
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	5		3	2				
12.	Teoria numerelor	II	5	2	1	2				
13.	Practică de specialitate I	II	3	1		1	1			
14.	Limba engleză II	II	2							2
15.	Educație fizică II	II	3					1	1	1
16.	Geometrie computațională	II	3			1	1			1
17.	Algebră III	III	5	2		2		1		
18.	Ecuatii diferențiale	III	6	2		2	1	1		
19.	Geometrie diferențială	III	6	2		2		2		
20.	Analiză numerică	III	5		2	2	1			
21.	Analiză reală	III	6	2		2		2		
22.	Limba engleză III	III	2							2
23.	Educație fizică III	III	3					1	1	1
24.	Capitole speciale de geometrie	IV	4	2		1		1		
25.	Analiză complexă	IV	5	2		1		2		
26.	Teoria probabilităților	IV	5	2	1		1	1		
27.	Practică de specialitate II	IV	3	1		1	1			
28.	Limba engleză IV	IV	2							2
29.	Educație fizică IV	IV	3					1	1	1
30.	Teoria categoriilor	IV	5	2		1		2		
31.	Capitole speciale de algebră	IV	5	2		1		2		
32.	Software matematic	IV	5	2		1	1	1		
33.	Capitole speciale de analiză matematică	IV	5	2		1	1	1		
34.	Etică și integritate academică	IV	1						1	
35.	Antreprenariat în domeniul Științe ale naturii	IV	1						1	
36.	Matematici financiare și actuariale	IV	3			1	1			1
37.	Ecuatii cu derivate parțiale	V	6	1	2	1	1	1		
38.	Statistică matematică	V	6	1	2	1	2			
39.	Analiză funcțională	V	6	3				3		
40.	Teoreme de punct fix	V	5	1	1		1	2		
41.	Teoreme minimax	V	5	1	1	1	1	1		
42.	Analiză convexă	V	5	1	1	1	1	1		
43.	Istoria matematicii	V	2						1	1
44.	Redactare și comunicare științifică și profesională	V	2						1	1
45.	Redactarea lucrărilor matematice în LaTeX	V	3	2						1
46.	Abilități de viață	V	1							1
47.	Coaching pentru carieră	V	1							1
48.	Mecanică teoretică	VI	6	1	1	1	1	2		
49.	Elaborarea lucrării de licență	VI	3	1		1		1		
50.	Astronomie	VI	5	1	1		2	1		
51.	Mecanica fluidelor	VI	5	2	1			2		
52.	Matematică fuzzy	VI	6	1	2		2	1		
53.	Inteligență artificială	VI	6	1	2		2	1		
54.	Modelare matematică	VI	5	1	1	1	1	1		
55.	Elemente de teoria fractalilor	VI	5	1	1	1	1	1		
56.	Cercetări operaționale	VI	5	2		1	1	1		
57.	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 și 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