



UNIVERSITATEA „VASILE ALECSANDRI” DIN  
BACĂU

Facultatea de Științe

Str. Calea Mărășești, nr. 157, Bacău, 600115  
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Domain: **MATHEMATICS**  
Study programme: **MATHEMATICS**

Academic year 2024/2025

### STRUCTURE OF THE 1<sup>ST</sup> YEAR OF STUDY

No.	DISCIPLINE	SEMESTER	NUMBER OF CREDITS	TYPE OF EVALUATION
1	Mathematical Analysis 1	1	6	E
2	Algebra 1 (Linear Algebra)	1	6	E
3	Mathematical Logic and Number Theory	1	6	E
4	Geometry 1 (Analytical Geometry)	1	5	E
5	Algorithms and Programming	1	5	E
6	Foreign Language 1A/1B - optional 1	1	2	C
7	Physical Education 1	1	1	C
8	Psychology of Education – elective	1	5	E
9	Mathematical analysis 2	2	6	E
10	Algebra 2 (Fundamental Structures of Algebra)	2	6	E
11	Data Structures	2	5	E
12	Number Theory	2	6	E
13	Geometry 2 (Synthetic Geometry)	2	5	E
14	Foreign Language 2A/2B - optional 2	2	2	C
15	Physical Education 2	2	1	C
16	Computational Geometry - elective	2	4	C
17	Pedagogy I (Fundamentals of Pedagogy + Curriculum Theory and Methodology) - elective	2	5	E

E - Exam

C - Colloquium

Dean,

Assoc. Prof. Gloria Cerasela CRIȘAN, PHD

Head of Department,

Lecturer, Roxana ARDELEANU, PhD



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STRUCTURE OF THE II<sup>ND</sup> YEAR OF STUDY

No.	DISCIPLINE	SEMESTER	NUMBER OF CREDITS	TYPE OF EVALUATION
1	Algebraic Complements	3	5	E
2	Mathematical Analysis 3	3	5	E
3	Complex Analysis	3	5	E
4	Graph Algorithms	3	3	E
5	<b>History of Mathematics</b> /Functional Programming - optional 1	3	5	E
6	Specialized Practical Training 1	3	4	C
7	Professional Ethics and Intellectual Property/ <b>Scientific and Professional Writing and Communication</b> - optional 2	3	1	C
8	Foreign Language 3A/3B - optional 3	3	2	C
9	Physical Education 3	3	1	C
10	Academic Ethics and Integrity - elective	3	3	C
11	Pedagogy II (Training Theory and Methodology + Assessment Theory and Methodology) - elective	3	5	E
12	Real Analysis	4	5	E
13	Numerical Analysis	4	4	E
14	<b>Astronomy/ Financial Mathematics</b> - optional 4	4	4	E
15	Probability Theory	4	4	E
16	Differential Equations	4	4	E
17	Differential Geometry 1 (Curves and Surfaces)	4	3	E
18	Foreign Language 4A/4B - optional 5	4	2	C
19	Specialized Practical Training 2	4	4	C
20	Specialization Didactics - elective	4	5	E

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### STRUCTURE OF THE III<sup>RD</sup> YEAR OF STUDY

No.	DISCIPLINE	SEMESTER	NUMBER OF CREDITS	TYPE OF EVALUATION
1	Functional Analysis	5	5	E
2	Equations with Partial Derivates	5	5	E
3	Mathematical Statistics	5	5	E
4	Differential Geometry 2 (Differentiable Varieties)	5	5	E
5	<b>Special Elementary Mathematics Topics</b> / Special Differential Geometry Topics/ Special Algebra Chapters – optional 1	5	5	E
6	Special Differential Equations Topics/ Mathematical Models Described by Differential Equations/ <b>Mathematics for Highly Achieving Students</b> - optional 2	5	5	C
7	Computer-assisted Learning – elective	5	2	C
8	Teaching Practice I – elective	5	3	C
9	Dynamic Systems – elective	5	4	C
10	Strategic Entrepreneurship – elective	5	4	E
11	Theoretical Mechanics	6	5	E
12	Complements of School Mathematics	6	6	E
13	Operational Research	6	5	E
14	Mathematical Software	6	5	E
15	Fundamentals of Mathematics/ General Topology/ <b>Optimization and Applications</b> / Theory of Operators – optional 3	6	5	E
16	Security and Protection of Users in the Digital Environment	6	1	C
17	Elaboration of the Bachelor Graduation Paper (2 weeks x 22 hours = 44 hours)	6	3	C
18	Entrepreneurship	6	1	C
19	Class management - elective	6	3	E
20	Teaching Practice II - elective	6	2	C
21	Computer Graphics – elective	6	5	C

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