



UNIVERSITATEA „VASILE ALECSANDRI” DIN  
BACĂU

Facultatea de Științe

Str. Calea Mărășești, nr. 157, Bacău, 600115  
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Domain: **COMPUTER SCIENCE**

Study programme: **COMPUTER SCIENCE Full attendance**

Academic year 2023/2024

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

No.	DISCIPLINE	SEMESTER	NUMBER OF CREDITS	TYPE OF EVALUATION
1	Mathematical Analysis	1	6	E
2	Programming Environments and Tools	1	6	E
3	Fundamentals of Programming	1	6	E
4	Databases	1	5	E
5	Human-computer Interfaces	1	5	E
6	Foreign Language IA/IB - optional 1	1	2	C
7	Physical Education I	1	1	C
8	Psychology of Education - elective	1	5	E
9	Accounting Bases - elective	1	5	E
10	Cybermarketing - elective	1	4	E
11	Computer Systems Architecture	2	4	E
12	Algebraic Foundations of Computer Science	2	5	E
13	Computational Geometry	2	4	E
14	Object-oriented Programming	2	5	E
15	Data Structures	2	5	E
16	Fundamental Algorithms	2	5	E
17	Foreign Language IIA/IIB - optional 2	2	2	C
18	Physical Education II	2	1	C
19	Pedagogy I (Fundamentals of Pedagogy +Curriculum Theory and Methodology) - elective	2	5	E
20	Marketing - elective	2	5	E
21	Mathematical Analysis II - elective	2	5	E

E - Exam

C - Colloquium

Dean,

Assoc. Prof. Gloria Cerasela CRIȘAN, PHD

Head of Department,

Assoc. Prof. Marcelina MOCANU, 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	<b>Advanced Programming Methods/Web Platforms and Content Management Systems – optional 1</b>	3	<b>5</b>	E
2	Web Applications Development	3	<b>5</b>	E
3	Probability and Mathematical Statistics	3	<b>6</b>	E
4	Advanced Programming Techniques	3	<b>6</b>	E
5	Graph Algorithms	3	<b>5</b>	E
6	Foreign Language III A/III B - optional 2	3	<b>2</b>	C
7	Physical Education III	3	<b>1</b>	C
8	Professional Ethics and Intellectual Property/ <b>Scientific and Professional Writing and Communication – optional 3</b>	3	<b>1</b>	C
9	Pedagogy II (Training Theory and Methodology +Assesment Theory and Methodology) - elective	3	<b>5</b>	E
10	General Genetics - elective	3	<b>4</b>	E
11	Ethics and Academic Integrity - elective	3	<b>3</b>	C
12	Mathematical and Computational Logic	4	<b>5</b>	E
13	Numerical Computing	4	<b>5</b>	E
14	Data Management Systems	4	<b>5</b>	E
15	Computer Networks	4	<b>4</b>	E
16	Formal and Automatic Languages	4	<b>5</b>	E
17	Specialized Training I	4	<b>4</b>	C
18	Foreign Language IV A/IV B - Optional 4	4	<b>2</b>	C
19	Specialization Didactics	4	<b>5</b>	E
20	Introduction to Mass-media - elective	4	<b>6</b>	E
21	General Economics - elective	4	<b>3</b>	C

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

No.	DISCIPLINE	SEMESTER	NUMBER OF CREDITS	TYPE OF EVALUATION
1	Operating Systems	5	4	E
2	Artificial Intelligence	5	5	E
3	<b>Software Engineering</b> /Automated Learning - optional 1	5	4	E
4	<b>Computer Systems Security</b> /Automated Systems, Computability and Complexity - optional 2	5	4	C
5	<b>Functional Programming</b> /Semantics of Programming Languages - optional 3	5	4	C
6	<b>Windows Distributed Applications Programming</b> /Cryptography - optional 4	5	4	C
7	Specialized Practical Training II	5	5	C
8	Computer-assisted Learning - elective	5	2	C
9	Teaching Practice - elective	5	3	C
10	Integrated Computer Systems - elective	5	6	C
11	Strategic Entrepreneurship - elective	5	4	E
12	Operational Research	6	5	E
13	Computer Graphs	6	3	E
14	Parallel, Concurrent, and Distributed Programming	6	4	E
15	<b>Differential Equations/Optimization and Applications</b> - optional 5	6	5	C
16	Mathematical Software	6	4	E
17	<b>Mobile Applications Development</b> /Software Project Management - optional 6	6	5	C
18	Internet of Things (IoT)	6	1	C
19	Entrepreneurship	6	1	C
20	Elaboration of the Bachelor Graduation Paper (2 weeks X 22 hours/week=44 hours)	6	3	C
21	Class Management (14 weeks) - elective	6	3	E
22	Teaching Practice (12 weeks) - elective	6	2	C

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