

SYLLABUS

HISTORY OF MTHEMATICS

University year 2005-2006

1. Information regarding the programme

1.1 Higher education institution	Babes-Bolyai University Cluj-Napoca
1.2 Faculty	Faculty of Matematics and Informatics
1.3 Department	Department of Mathematics
1.4 Field of study	Informatics
1.5 Study cycle	Bachelor
1.6 Study programme / Qualification	Informatics
1.7. Form of education	with frequency

2. Information regarding the discipline

2.1 Name of the discipline		Mathematics history		Discipline code		MLR2006	
2.2 Course coordinator			Lect. Dr. Veronica Ilea				
2.3 Seminar coordinator			-				
2.4. Year of study	3	2.5 Semester	6	2.6. Type of evaluation	C	2.7 Type of discipline	Optional

3. Total estimated time (hours/semester of didactic activities)

3.1 Hours per week	2	Of which: 3.2 curs	2	3.3 seminar/laboratory	0
3.4 Total hours in the curriculum	24	Of which: 3.5 curs	24	3.6 seminar/labor.	0
Time allotment:					hours
Learning using manual, course support, bibliography, course notes					20
Additional documentation (in libraries, on electronic platforms, field documentation)					11
Preparation for seminars/labs, homework, papers, portfolios and essays					10
Tutorship					6
Evaluations					4
Other activities:					-
3.7 Total individual study hours	51				
3.8 Total hours per semester	75				
3.9 Number of ECTS credits	3				

4. Prerequisites (if necessary)

4.1 curriculum	•
4.2 competencies	•

5. Conditions (if necessary)

5.1. for the course	• The courses will be taught at the blackboard, sometimes th evideo projector is needed
5.2. for the seminar /lab	•

activities	
------------	--

6.1. Specific competencies acquired

Professional competencies	<p>C1.1 The identification of the informations, the description of the theories and the use of the specific language</p> <p>C2.4. The comparative analyze of the results obtained by solving the problems with the preexisting data</p> <p>C5.5 The developement of some / homeworks using different proof methods</p>
Transversal competencies	<p>CT3. The efficient use of some information sources and of some comunication resources and asisted resources of comunication and training, studied in romanian and in a professional communication language also.</p>

6.2. Learning outcomes

Knowledge	The student knows: concepts and can describe using specific language details regarding the concepts taught.
Skills	The student is able to use existing resources for a favorable framing of the concepts and problems taught.
Responsibility and autonomy:	The student has the ability to work independently to study and develop the concepts taught regarding the history of mathematics, to present them in oral and electronic format.

7. Objectives of the discipline (outcome of the acquired competencies)

7.1 General objective of the discipline	<ul style="list-style-type: none"> Be able to understand the mathematical concepts durement time To understand methods of solving of different problems
7.2 Specific objective of the discipline	<ul style="list-style-type: none"> To reach the perfect motivation needed for team work, to develop a professional attitude for the team work

8. Content

8.1 Course	Teaching methods	Remarks
1. Preliminary.Mathematics hystory sources. Specific time for mathematics evolution	Exposure: description, explanation, examples, discussion of case studies	
2. Matematics in antient Greec. Famouse problems of the greecs.	Exposure: description, explanation, examples, discussion of case studies	
3. Mathematics in Middle Age.	Exposure: description, explanation, examples, debate, dialogue	

4. Modern calcul: Newton and Leibniz. Riemann integral	Exposure: description, explanation, examples, discussion of case studies	
5. Geometry and axioms. Solving algebric equations.	Exposure: description, explanation, examples, proofs	
6. The fundamental problem. The theory oof sets or working with the infinit.	Exposure: description, explanation, examples, proofs, debate, dialogue	
7. Cathegories theory. Computer and algoritms.	Exposure: description, explanation, examples, discussion of case studies	

Bibliografy

- Both, Nicolae: Istoria matemaicii. Editura ALC Media Group, Cluj-Napoca, 1999.
- Mihaileanu, N.: Istoria matematicii – Antichitatea; Evul mediu; Renasterea si secolul al 17-lea. Editura Enciclopedica Româna, Bucuresti, 1974.
- Mihaileanu, N.: Istoria matematicii -- Secolul al 18-lea; Prima jumătate a secolului a 19-lea; Dezvoltarea ulterioara a matematicii. Editura Stiintifica si Enciclopedica, Bucuresti, 1981.
- Toth Alexandru: Istoria matematicii, Univ. "Babes-Bolyai" Cluj, Facultatea de Matematica si Informatica, Cluj-Napoca, 1971

9. Corroborating the content of the discipline with the expectations of the epistemic community, professional associations and representative employers within the field of the program

- The course respects the IEEE and ACM Curricula Recommendations for Computer Science studies;
- The course exists in the studying program of all major universities in Romania and abroad;
- The content of the course: basic elements related of mathematical evolution in time

10. Evaluation

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the grade (%)
10.4 Course	To present in front of the class a paper containing the life or/and work of some important mathematician	Referat X 2	60%
	- know the basic principle of the domain - apply the course concepts -to know the mathematics periods	Written exam	30%
10.6 Minimum performance standards			
<ul style="list-style-type: none"> • At least grade 6 (from a scale of 1 to 10) to the referat. 			

11. Labels ODD (Sustainable Development Goals)


Not applicable.


Date

Signature of course coordinator

Signature of seminar coordinator

11.04.2025.

Lect.dr. Veronica Ilea 

Lect.dr. Veronica Ilea 

Date of approval

Signature of the head of department

25.04.2025.