#### **SYLLABUS**

# 1. Information regarding the programme

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

# 2. Information regarding the discipline

2.1 Name of the		Mathematics history						
discipline								
2.2 Course coordinator Lect. Dr. Veronica Ilea								
2.3 Seminar coordina	ntor		-					
2.4. Year of study	3	2.5 Semester	r	6	2.6. Type of evaluation	С	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	0
					seminar/laboratory	
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						40
Additional documentation (in libraries, on electronic platforms, field documentation)						40
Preparation for seminars/labs, homework, papers, portfolios and essays					30	
Tutorship					10	
Evaluations					6	
Other activities:					-	
3.7 Total individual study hours 126						

3.8 Total hours per semester	150
3.9 Number of ECTS credits	6

### 4. Prerequisites (if necessary)

4.1 curriculum	•
4.2 competencies	•

# **5. Conditions** (if necessary)

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

### 6. Specific competencies acquired

<u>0. ppc</u>	ine competencies acquired	
	C1.1 The identification of the informations, the description of the theories and the use of	
Professional competencies	the specific language C2.4. The comparative analize of the results obtained by solving the problems with the preexisting data C5.5 The developement of some / homeworks useing different proof methods	
<b>Transversal</b> competencies	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 comunication language also.	

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

7.1 General objective of the discipline	<ul> <li>Be able to understand the mathematical concepts dureing time</li> <li>To understand methods of solving of different problems</li> </ul>
7.2 Specific objective of the discipline	• 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.	Exposure: description, explanation,	
Specific time for mathematics evolution	examples, discussion of case studies	
2. Matematics in antient Greec. Famouse	Exposure: description, explanation,	
problems of the greecs.	examples, discussion of case studies	
3. Mathematics in Middle Age.	Exposure: description, explanation, examples, debate, dialogue	
4. Modern calcul: Newton and Leibniz.	Exposure: description, explanation, examples, discussion of case studies	
Riemann integral	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.	Exposure: description, explanation, examples, discussion of case studies	
Computer and algoritms.		

Bibliografy

1. Both, Nicolae: Istoria matemaicii. Editura ALC Media Group, Cluj-Napoca, 1999.

2. Mihaileanu, N.: Istoria matematicii – Antichitatea; Evul mediu; Renasterea si secolul al 17-lea.

Editura Enciclopedica Româna, Bucuresti, 1974.

3. Mihaileanu, N.: Istoria matematicii -- Secolul al 18-lea; Prima jumatate a secolului a 19-lea;

Dezvoltarea ulterioara a matematicii. Editura Stiintifica si Enciclopedica, Bucuresti, 1981.

4. 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 Curriculla 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	50%		
	<ul> <li>know the basic principle of the domain</li> <li>apply the course concepts</li> <li>to know the mathematics periods</li> </ul>	Written exam	50%		
10.6 Minimum performance standards					
• At least grade 6 (from a scale of 1 to 10) to the referat.					

Date	Signature of course coordinator	Signature of seminar coordinator

01.04.2021. Lect.dr. Veronica Ilea

Lect.dr. Veronica Ilea

Date of approval

Signature of the head of department

28.04.2021