

BRIEF COURSE SYLLABUS: "MATHEMATICS OF MACHINE LEARNING"  
2020-2021

1. Information about the programme

1.1 Department	Exact Sciences
1.2 Institution	Romanian Academy
1.3 Field of study	Informatics
1.4 Study cycle	Doctoral Studies

2. Information about the course

2.1 Name of the course	Mathematics of machine learning							
2.2 Holder of lecture activities	Associate Professor Marius Leordeanu, Ph.D.							
2.3 Holder of seminar activities	Associate Professor Marius Leordeanu, Ph.D.							
2.4 Holder of laboratory activities								
2.5 Study year	I	2.6 Semester	II	2.7 Type of assessment		E*	2.8 Course status	SC**

3. Estimated total time (hours of teaching activities per semester)

3.1 Number of hours per week	4	Of which:			
3.2 lecture	2	3.3 seminar	2	3.4 laboratory	0
3.5 Total hours in the curriculum	56	Of which:			
3.6 lecture	28	3.7 seminar	28	3.8 laboratory	0
<b>Distribution of time resources:</b>					<b>hours</b>
Studying using textbook, course materials, bibliography and notes					60
Additional research in the library, on specialized electronic platforms and on the field					55
Preparation for seminars/laboratories, homework, papers, portfolios and essays					44
Tutoring					55
Examinations					4
Other activities: Module: General research methods and methodology for writing research papers					6
3.9 Total individual study hours	224				
3.10 Total hours per semester	280				
3.11 Number of credits	15				

4. "Learning outcomes" and specific skills acquired

1. Acquiring the curriculum content taught in the course;
2. Ability to use the presented results in new contexts;
3. The knowledge and skills acquired within this course will be the basis of future scientific and didactic research activities;
4. Ability to select and use independently the most appropriate scientific research methods in one's own professional activity;
5. Ability to present the results obtained in one's own scientific research;
6. Knowledge of the notion of copyright and its ethical implications;
7. Knowledge of the general principles of writing a scientific paper;
8. Writing a scientific paper;
9. Writing a research project.

\*E = Exam. C = Colloquium.

\*\*CC = Core Course. SC = Specialty Course.

## 5. Assessment

Activity type	5.1 Assessment criteria	5.2 Assessment methods	5.3 Weight in the final grade
5.4 Lecture	Acquired knowledge	Written exam	65%
5.5 Seminar	Activity	Oral exam	35%
5.6 Laboratory			
<b>5.7 Minimum performance standard:</b> Knowledge of 70% of the information contained in the course			

Course holder's signature  
Associate Professor Marius  
Leordeanu, Ph.D.

Seminar holder's signature  
Associate Professor Marius  
Leordeanu, Ph.D.

Laboratory holder's signature

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