## **SYLLABUS**

1. Information regarding the programme

1.1 Higher education institution	Babeş Bolyai University
1.2 Faculty	Faculty of Mathematics and Computer Science
1.3 Department	Department of Computer Science
1.4 Field of study	Computer Science
1.5 Study cycle	Master
1.6 Study programme / Qualification	Applied Computational Intelligence

2. Information regarding the discipline

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2.1 Name of the	ne of the discipline Elaboration of the Dissertation Thesis				sis		
2.2 Course coordinator Prof.Dr. Horia F. Pop							
2.3 Seminar coo	ordi	nator		Prof.Dr. Horia F. Po	ор		
2.4. Year of	2	2.5	4	2.6. Type of	VP	2.7 Type of	Compulsory
study		Semester		evaluation		discipline	

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

3.1 Hours per week	5	Of which: 3.2 course	0	3.3	project	5
3.4 Total hours in the curriculum	60	Of which: 3.5 course			project	60
Time allotment:						
Learning using manual, course support, bibliography, course notes						8
Additional documentation (in libraries, on electronic platforms, field documentation)						8
Preparation for seminars/labs, homework, papers, portfolios and essays						12
Tutorship						8
Evaluations					4	
Other activities:					-	
27 T ( 1' 1' 1 1 ( 1 1		40				

3.7 Total individual study hours	40
3.8 Total hours per semester	100
3.9 Number of ECTS credits	4

**4. Prerequisites** (if necessary)

4.1. curriculum	Computer Science Research Methodology
4.2. competencies	

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

5.1. for the course	-
5.2. for the seminar /lab activities	None

6. Specific competencies acquired

Professional competencies	<ul> <li>Analysis and formalization of problems and issues requiring advanced computer science understanding</li> <li>Use of specific theoretical methods in problems solving at various levels</li> <li>Analysis, design, and implementation of advanced software systems</li> <li>Proficient use of methodologies and tools specific to programming languages and software systems</li> </ul>
Transversal competencies	Professional communication skills; concise and precise description, both oral and written, of professional results

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

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7.1 General objective of the	This research activity represents the individual work the student performs	
discipline	with the purpose to finalize his/her dissertation thesis.	
7.2 Specific objective of the	At the completion of this course, the student should:	
discipline	- have documentation abilities on the dissertation;	
	- be able to design the table of contents of the dissertation;	
	- know how to write a technical document (dissertation) in many iterations.	

#### 8. Content

8.1 Course	Teaching methods	Remarks
8.2 Seminar / laboratory	Teaching methods	Remarks
1. Establishing the thesis title/topic - due week 2	Conversation, debate, case studies	
2. Bibliographical documentation - due week 4	Conversation, debate, case studies	
3. Table of contents: version 1.0 - due week 5	Conversation, debate, case studies	
4. Relevance of the bibliographical sources and their	Conversation, debate, case studies	
assignment to the designed structure - due week 7		
5. Detecting possible original contribution; discussion	Conversation, debate, case studies	
and decision on experimental modeling – due week 8		
6. Processing of selected documents and writing the	Conversation, debate, case studies	
paper – first draft of the thesis – due week 10		
7. Final form of the thesis – due week 12	Evaluation	
Ribliography		

### Bibliography

- to be decided by student based on his/her research topic
- Internet resources on software projects and on the particular topics of the projects

# 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 Software Engineering studies;
- The course exists at the major universities in Romania offering similar study programs;
- Graduating a master program assumes experience in developing a research project

## 10. Evaluation

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the grade (%)	
10.15		memous	the grade (%)	
10.4 Course				
10.5 Seminar/lab	Each of the activities has a due date and a	Portfolio, research		
activities	corresponding mark, on a 10-point scale. A	report. Assessment		
	penalty of 1pt per week are considered for	by dissertation		
	delays. The weights are as follows:	coordinator		
	1. title (10%)		10%	
	2. bibliographical documentation (10%)		10%	
	3. table of contents v1.0 (10%)		10%	
	4. assigning sources to structure (20%)		20%	
	5. original contribution + experimental (10%)		10%	
	6. final version of the thesis (40%)		40%	
10.6 Minimum perfe	10.6 Minimum performance standards			
➤ At least grade 5 (from a scale of 1 to 10)				

Date 20.04.2018	Signature of course coordinator Prof. Dr. Horia F. Pop	Signature of seminar coordinator Prof. Dr. Horia F. Pop
Date of appr	oval	Signature of the head of departmen
		Prof. Dr. Anca Andreica