

## SYLLABUS

### 1. Information regarding the programme

1.1 Higher education institution	<b>Babeş Bolyai University</b>
1.2 Faculty	<b>Faculty of Mathematics and Computer Science</b>
1.3 Department	<b>Department of Computer Science</b>
1.4 Field of study	<b>Computer Science</b>
1.5 Study cycle	<b>Master</b>
1.6 Study programme / Qualification	<b>Software Engineering</b>

### 2. Information regarding the discipline

2.1 Name of the discipline	<b>Research Project in Software Engineering</b>						
2.2 Course coordinator	<b>Assoc.Prof.PhD. Simona Motogna</b>						
2.3 Seminar coordinator	<b>Assoc.Prof.PhD. Simona Motogna</b>						
2.4. Year of study	<b>2</b>	2.5 Semester	<b>4</b>	2.6. Type of evaluation	<b>C</b>	2.7 Type of discipline	<b>Compulsory</b>

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

3.1 Hours per week	1	Of which: 3.2 course	0	3.3 seminar/laboratory	1	
3.4 Total hours in the curriculum	12	Of which: 3.5 course	0	3.6 seminar/laboratory	12	
Time allotment:						hours
Learning using manual, course support, bibliography, course notes						20
Additional documentation (in libraries, on electronic platforms, field documentation)						10
Preparation for seminars/labs, homework, papers, portfolios and essays						40
Tutorship						14
Evaluations						4
Other activities: .....						-
3.7 Total individual study hours						88
3.8 Total hours per semester						100
3.9 Number of ECTS credits						4

### 4. Prerequisites (if necessary)

4.1. curriculum	<ul style="list-style-type: none"> <li>Computer Science Research Methodology</li> </ul>
4.2. competencies	<ul style="list-style-type: none"> <li></li> </ul>

### 5. Conditions (if necessary)

5.1. for the course	<ul style="list-style-type: none"> <li>-</li> </ul>
5.2. for the seminar /lab activities	<ul style="list-style-type: none"> <li>None</li> </ul>

## 6. Specific competencies acquired

<b>Professional competencies</b>	<ul style="list-style-type: none"> <li>• Analysis, design, and implementation of software systems</li> <li>• Proficient use of methodologies and tools specific to programming languages and software systems</li> </ul>
<b>Transversal competencies</b>	<ul style="list-style-type: none"> <li>• Professional communication skills; concise and precise description, both oral and written, of professional results</li> </ul>

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

7.1 General objective of the discipline	The research project activity represents the individual work the student performs with the purpose to realize a scientific report on a given topic.
7.2 Specific objective of the discipline	<p>At the completion of this course, the student should:</p> <ul style="list-style-type: none"> <li>- have documentation abilities on an established topic</li> <li>- be able to design the table of contents of research project</li> <li>- know how to write a technical document (research paper) in many iterations</li> </ul>

## 8. Content

8.1 Course	Teaching methods	Remarks
8.2 Seminar / laboratory	Teaching methods	Remarks
1. Establishing the research title/topic - due week 3	Conversation, debate, case studies	
2. Bibliographical documentation - due week 5	Conversation, debate, case studies	
3. Table of contents: version 1.0 - due week 6	Conversation, debate, case studies	
4. Relevance of the bibliographical sources and their assignment to the designed structure - due week 8	Conversation, debate, case studies	
5. Detecting possible original contribution; discussion and decision on practical part – due week 9	Conversation, debate, case studies	
6. Translation of selected documents and writing the paper – first draft of the report – due week 12	Conversation, debate, case studies	
7. Final form of the report – due week 12	Evaluation	
<b>Bibliography</b> <ul style="list-style-type: none"> <li>- to be decided by student based on his/her research topic</li> <li>- Internet resources on software projects and on the particular topics of the projects</li> </ul>		

**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 (%)
10.4 Course			
10.5 Seminar/lab activities	<p>Each of the activities has a due date and a corresponding mark, on a 10-point scale. A penalty of 1pt per week are considered for delays. The weights are as follows:</p> <ol style="list-style-type: none"> <li>1. title (10%)</li> <li>2. documentation (20%)</li> <li>3. contents v1.0 (10%)</li> <li>4. assigning sources to structure (20%)</li> <li>5. final version of the paper (40%)</li> </ol>	Portofolio, research report	<p>10%</p> <p>20%</p> <p>10%</p> <p>20%</p> <p>40%</p>
10.6 Minimum performance standards			
➤ At least grade 6 (from a scale of 1 to 10)			

Date

Signature of course coordinator

Signature of seminar coordinator

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Assoc.Prof.PhD. Simona MOTOGNA

Assoc.Prof.PhD. Simona MOTOGNA

Date of approval

Signature of the head of department

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