

## SYLLABUS

### 1. Information regarding the programme

1.1 Higher education institution	<b>Babes-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>Bachelor</b>
1.6 Study programme / Qualification	<b>Computer Science</b>

### 2. Information regarding the discipline

2.1 Name of the discipline (en) (ro)	<b>Preparation of Bachelor Thesis</b>						
2.2 Course coordinator	<b>PhD Associate Professor Vescan Andreea</b>						
2.3 Seminar coordinator	<b>PhD Associate Professor Vescan Andreea</b>						
2.4. Year of study	<b>3</b>	2.5 Semester	<b>6</b>	2.6. Type of evaluation	<b>VP</b>	2.7 Type of discipline	<b>compulsory</b>
2.8 Code of the discipline	<b>MLE5014</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					2
Additional documentation (in libraries, on electronic platforms, field documentation)					12
Preparation for seminars/labs, homework, papers, portfolios and essays					24
Tutorship					0
Evaluations					0
Other activities: .....					0
3.7 Total individual study hours	38				
3.8 Total hours per semester	50				
3.9 Number of ECTS credits	2				

### 4. Prerequisites (if necessary)

4.1. curriculum	•
4.2. competencies	•

## 5. Conditions (if necessary)

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

## 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	<ul style="list-style-type: none"> <li>• The course represents the individual work the student performs with the purpose to prepare the Bachelor's Degree thesis on a given topic.</li> </ul>
7.2 Specific objective of the discipline	<ul style="list-style-type: none"> <li>• At the completion of this course, the student should:             <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 a thesis</li> <li>○ know how to write a technical document (research paper) in many iterations</li> <li>○ know how to conduct a small size research project, use research methodologies</li> </ul> </li> </ul>

## 8. Content

8.1 Course	Teaching methods	Remarks
8.2 Seminar / laboratory	Teaching methods	Remarks
Seminar 1 Assignment Received: <ul style="list-style-type: none"> <li>• Assignment 1: Establishing the theme with the scientific coordinator.</li> </ul> Assignment Delivery: <ul style="list-style-type: none"> <li>• Assignment Delivery: Seminar 2</li> <li>• Turn in: chosen theme, name of the scientific coordinator, domain of the theme, 3 bibliographic resources (books, articles, etc.)</li> </ul>	Conversation, debate, case studies	
Seminar 2 Assignment Received: <ul style="list-style-type: none"> <li>• Assignment 2: Creating the content of the paper + Develop a chapter from the theoretical part.</li> </ul> Assignment Delivery: <ul style="list-style-type: none"> <li>• Assignment Delivery: Seminar 3</li> </ul>	Conversation, debate, case studies	

<ul style="list-style-type: none"> <li>Turn in: content of the thesis (chapters for the theoretical part + chapters for the practical part) + Chapter Theoretical 1</li> </ul>		
<b>Seminar 3</b> Assignment Received: <ul style="list-style-type: none"> <li>Assignment 3: Develop another chapter from the theoretical part. Develop the chapter for the application</li> </ul> Assignment Delivery: <ul style="list-style-type: none"> <li>Assignment Delivery: Seminar 4 Turn in: Chapter (of your choice) from the theoretical part (theoretical content + references + tables + images). Chapter from the practical part (theoretical content + references + tables + images). This chapter should contain at this time the application requirements and their specification.</li> </ul>	Conversation, debate, case studies	
<b>Seminar 4</b> Assignment Received: <ul style="list-style-type: none"> <li>Assignment 4: Develop another chapter for the application. One functionality F1 of the application must be shown/executed.</li> </ul> Assignment Delivery: <ul style="list-style-type: none"> <li>Assignment Delivery: Seminar 5 Turn in: Another chapter from the theoretical part (theoretical content + references + tables + images). - Chapter from the practical part should contain design/implementation/testing for Functionality F1.</li> </ul>	Conversation, debate, case studies	
<b>Seminar 5</b> Assignment Received: <ul style="list-style-type: none"> <li>Assignment 5: Presentation slides, Abstract+Introduction, Functionality F2 - execution</li> </ul> Assignment Delivery: <ul style="list-style-type: none"> <li>Assignment Delivery: Seminar 6 Turn in: Presentation (only slides) + Abstract and Introduction + Functionality F2 – to be shown.</li> </ul>	Conversation, debate, case studies	
<b>Seminar 6</b> <ul style="list-style-type: none"> <li>Grading by the Tutor</li> </ul>	Conversation, debate, case studies	
<b>Bibliography</b> - 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;

**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	<ul style="list-style-type: none"> <li>Final Grade = 0.5 * Grade given by Tutor + 0.5* Grade given by Scientific Coordinator</li> </ul>	Portofolio, research report	<ul style="list-style-type: none"> <li>50% Grade given by Tutor (arithmetic average of the</li> </ul>

	<ul style="list-style-type: none"> <li>• Grade given by Tutor = arithmetic average of the grades from the 5 laboratory assignments (awarded at the end of the laboratory 6)</li> <li>• Grade given by Scientific Coordinator = given in the session</li> </ul>		grades from the 5 laboratory assignments (awarded at the end of the laboratory 6) ) 50% Grade given by Scientific Coordinator
<p><b>Remarks.</b></p> <ul style="list-style-type: none"> <li>• Presence on this subject is mandatory, and minimum 4 attendances will be required.</li> <li>• Students will have 5 lab assignments; each assignment will receive a grade.</li> <li>• Penalties             <ul style="list-style-type: none"> <li>○ The assignments delivered after the scheduled delivery are marked with 2 points/laboratory delay.</li> <li>○ Example: Assignment 3 with a delivery schedule in Lab 4 but delivered in Lab 6, gets the maximum mark of 6.</li> </ul> </li> <li>• Grade given by Tutor = arithmetic average of the grades from the 5 laboratory assignments (awarded at the end of the laboratory 6)</li> <li>• Grade given by Scientific Coordinator = given in the session</li> <li>• Final Grade = <math>0.5 * \text{Grade given by Tutor} + 0.5 * \text{Grade given by Scientific Coordinator}</math></li> <li>• Pass the subject: Final grade <math>\geq 5</math>. Grade given by Tutor or Grade given by Scientific Coordinator may be less than 5, but the Final Grade must be greater than 5.</li> <li>• In the retake session, the student can also deliver assignments that were undelivered during the didactic activity only if she/he has at least 4 attendances. The grade given by tutor will be at most 6 if during the semester the student did not delivered any assignment. If the student delivered parts of the assignments during the semester, and in the retake session she/he delivered some other assignments, the grade on each assignment is computed as if it were delivered in Lab 6 (with appropriate penalties), but the final grade will be at most 6.</li> <li>• Students who do not have a minimum of 4 attendances may deliver them only in the liquidation session, and the tutor's grade will be maximum 6.</li> </ul>			
<p>10.6 Minimum performance standards</p>			
<p>➤ At least grade 5 (from a scale of 1 to 10)</p>			

Date

Signature of course coordinator

Signature of seminar coordinator

24 April 2019

Assoc. Prof. PhD. Andreea Vescan,

Assoc. Prof. PhD. Andreea Vescan

Date of approval

Signature of the head of department

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Prof. PhD. Anca Andreica