

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	Component Based Programming

2. Information regarding the discipline

2.1 Name of the discipline (en) (ro)	Research Project in Component Based Programming Proiect de Cercetare in Programarea Bazata pe Componente						
2.2 Course coordinator	Assoc. Prof. Eng. Florin Craciun						
2.3 Seminar coordinator	Assoc. Prof. Eng. Florin Craciun						
2.4. Year of study	2	2.5 Semester	4	2.6. Type of evaluation	C	2.7 Type of discipline	Compulsory

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					10
Additional documentation (in libraries, on electronic platforms, field documentation)					10
Preparation for seminars/labs, homework, papers, portfolios and essays					48
Tutorship					10
Evaluations					10
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"> • Computer Science Research Methodology
4.2. competencies	<ul style="list-style-type: none"> •

5. Conditions (if necessary)

5.1. for the course	

6. Specific competencies acquired

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

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

7.1 General objective of the discipline	<ul style="list-style-type: none"> • 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"> - have documentation abilities on an established topic - be able to design the table of contents of research project - know how to write a technical document (research paper) in many iterations

8. Content

8.1 Course	Teaching methods	Remarks
8.2 Laboratory and Project	Teaching methods	Remarks
1. research topic, initial abstract	Conversation, debate, case studies	
2. Paper structure, bibliographical documentation	Conversation, debate, case studies	
3. Paper technical part		
4. Paper technical part		
5. Paper related work		
6. Paper experimental part and conclusions		
7. Paper presentation		
Bibliography	– to be decided by student based on his/her research topic	

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 content of the course is considered by the software companies as important for average software development skills

10. Evaluation

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the grade (%)
Project /lab activities	Presentation, results evaluation and importance of the results	-research project	100.00%
10.6 Minimum performance standards			
➤ At least grade 5 (from a scale of 1 to 10) at both written exam and laboratory work.			

Date
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Signature of course coordinator
Assoc. Prof. En. Florin CRACIUN

Signature of seminar coordinator
Assoc. Prof. Eng. Florin CRACIUN

Date of approval
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Signature of the head of department
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