

## 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>Elaboration of the Dissertation Thesis</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>VP</b> | 2.7 Type of discipline | <b>Compulsory</b> |

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

|   |  |                      |     |             |       |
|---|--|----------------------|-----|-------------|-------|
| 3.1 Hours per week  |  | Of which: 3.2 course | 0   | 3.3 project | 5     |
| 3.4 Total hours in the curriculum   |  | Of which: 3.5 course | 0   | 3.6 project | 60    |
| Time allotment:   |  |                      |     |             | hours |
| 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: .....   |  |                      |     |             | -     |
| 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   | <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>• 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 course represents the individual work the student performs with the purpose to prepare the Master Degree thesis on a given topic.  |
| 7.2 Specific objective of the discipline | 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             <ul style="list-style-type: none"> <li>- know how to write a technical document (research paper) in several iterations</li> </ul> </li> </ul> |

## 8. Content

|  |                  |         |
|--|------------------|---------|
| 8.1 Course   | Teaching methods | Remarks |
| 8.2 Project  | Teaching methods | Remarks |
| Bibliography<br>- to be decided by student based on his/her research topic<br>- 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

|  |
|--|
| <ul style="list-style-type: none"> <li>• The course respects the IEEE and ACM Curricula Recommendations for Software Engineering studies;</li> <li>• The course exists at the major universities in Romania offering similar study programs;</li> <li>• Graduating a master program assumes experience in developing a research project</li> </ul> |
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## 10. Evaluation

| Type of activity        | 10.1 Evaluation criteria  | 10.2 Evaluation methods     | 10.3 Share in the grade (%) |
|-------------------------|---|-----------------------------|-----------------------------|
| 10.4 Course             |   |                             |                             |
| 10.5 Project activities | 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 | Portofolio, research report |                             |

|  |   |  |                                 |
|--|---|--|---------------------------------|
|  | as follows:<br>1. title (10%)<br>2. documentation (20%)<br>3. contents v1.0 (10%)<br>4. assigning sources to structure (20%)<br>5. final version of the paper (40%) |  | 10%<br>20%<br>10%<br>20%<br>40% |
| 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

30.04.2020

Assoc.Prof.PhD. Simona MOTOGNA

Assoc.Prof.PhD. Simona MOTOGNA

Date of approval

Signature of the head of department

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