

## SYLLABUS

### 1. Data about the program of study

|                                    |   |
|------------------------------------|---|
| 1.1 Institution                    | The Technical University of Cluj-Napoca     |
| 1.2 Faculty                        | Faculty of Automation and Computer Science  |
| 1.3 Department                     | Computer Science                            |
| 1.4 Field of study                 | Computer Science and Information Technology |
| 1.5 Cycle of study                 | Bachelor of Science                         |
| 1.6 Program of study/Qualification | Computer science/ Engineer                  |
| 1.7 Form of education              | Full time                                   |
| 1.8 Subject code                   | 50.   |

### 2. Data about the subject

|  |   |              |   |   |    |
|--|---|--------------|---|---|----|
| 2.1 Subject name   | <b>Project Management</b>   |              |   |   |    |
| 2.2 Course responsible/lecturer                            | Prof. dr. eng. Mihaela Dinsoreanu, <a href="mailto:mihaela.dinsoreanu@cs.utcluj.ro">mihaela.dinsoreanu@cs.utcluj.ro</a> |              |   |   |    |
| 2.3 Teachers in charge of seminars/<br>laboratory/ project |   |              |   |   |    |
| 2.4 Year of study  | IV  | 2.5 Semester | 2 | 2.6 Type of assessment (E - exam, C - colloquium, V - verification) | E  |
| 2.7 Subject category                                       | DF – fundamentală, DD – în domeniu, DS – de specialitate, DC – complementară  |              |   |   | DS |
|  | DI – Impusă, DOp – opțională, DFac – facultativă  |              |   |   | DI |

### 3. Estimated total time

|  |    |           |        |    |          |  |            |  |         |    |
|--|----|-----------|--------|----|----------|--|------------|--|---------|----|
| 3.1 Number of hours per week   | 3  | of which: | Course | 3  | Seminars |  | Laboratory |  | Project |    |
| 3.2 Number of hours per semester   | 42 | of which: | Course | 42 | Seminars |  | Laboratory |  | Project |    |
| 3.3 Individual study:  |    |           |        |    |          |  |            |  |         |    |
| (a) Manual, lecture material and notes, bibliography                                 |    |           |        |    |          |  |            |  |         | 10 |
| (b) Supplementary study in the library, online and in the field                      |    |           |        |    |          |  |            |  |         | 10 |
| (c) Preparation for seminars/laboratory works, homework, reports, portfolios, essays |    |           |        |    |          |  |            |  |         | 10 |
| (d) Tutoring   |    |           |        |    |          |  |            |  |         |    |
| (e) Exams and tests  |    |           |        |    |          |  |            |  |         | 3  |
| (f) Other activities:  |    |           |        |    |          |  |            |  |         |    |
| 3.4 Total hours of individual study (suma (3.3(a)...3.3(f)))                         |    |           |        |    | 33       |  |            |  |         |    |
| 3.5 Total hours per semester (3.2+3.4)   |    |           |        |    | 75       |  |            |  |         |    |
| 3.6 Number of credit points  |    |           |        |    | 3        |  |            |  |         |    |

### 4. Pre-requisites (where appropriate)

|                |  |
|----------------|--|
| 4.1 Curriculum | Software Design, Software Engineering                      |
| 4.2 Competence | Software Development methodologies, Software Architectures |

### 5. Requirements (where appropriate)

|                           |  |
|---------------------------|--|
| 5.1. For the course       | <b>Onsite</b> scenario: Video projector, internet connected computer, Moodle, Teams<br>Attendance compulsory min 50% |
| 5.2. For the applications | -  |

### 6. Specific competence

|                              |   |
|------------------------------|---|
| 6.1 Professional competences | <p><b>C5</b> Designing, managing the lifetime cycle, integrating and ensuring the integrity of hardware, software and communication systems</p> <p><b>C5.1</b> Specifying the relevant criteria regarding the lifetime cycle, quality, security and the computing system's interaction with the environment and the human operator</p> <p><b>C5.2</b> Using interdisciplinary knowledge for adapting the computing system to the specific requirements of the application field</p> |
|------------------------------|---|

|                       |   |
|-----------------------|---|
|                       | <p><b>C5.3</b> Using fundamental principles and methods for ensuring the security, the safety and ease of exploitation of the computing systems</p> <p><b>C5.4</b> Proper utilization of the quality, safety and security standards in the field of information processing</p> <p><b>C5.5</b> Creating a project including the problem's identification and analysis, its design and development, also proving an understanding of the basic quality requirements</p> |
| 6.2 Cross competences | N/A   |

### 7. Discipline objective (as results from the *key competences gained*)

|                         |   |
|-------------------------|---|
| 7.1 General objective   | Understand and apply appropriate project management techniques  |
| 7.2 Specific objectives | <ul style="list-style-type: none"> <li>• Acknowledge the interfaces and interdependencies between the disciplines in OOSE</li> <li>• Present various project management techniques and their application in the two prominent methodologies</li> <li>• Project Management Metrics and Indicators</li> <li>• Understand the risks and the factors that lead to success or failure; Risk Management</li> <li>• Reflections of Project Management on the Software Quality</li> </ul> |

### 8. Contents

| 8.1 Lectures  | Hours | Teaching methods   | Notes |
|---|-------|--|-------|
| Introduction  | 2     | <b>Onsite</b> scenario: Face to face lectures, Powerpoint slides, Quizes, homeworks and discussions. Course materials Moodle |       |
| PM overview   | 2     |  |       |
| Basics of Project Management for Agile Methodologies  | 2     |  |       |
| Basics of Project Management for Plan-driven Methodologies  | 2     |  |       |
| Planning and Tailoring the process  | 2     |  |       |
| Planning the Disciplines  | 2     |  |       |
| WBS development   | 2     |  |       |
| Scheduling and Resource management  | 2     |  |       |
| Monitoring and Control  | 2     |  |       |
| Risk management   | 2     |  |       |
| People management   | 2     |  |       |
| Change management   | 2     |  |       |
| Project Closure   | 2     |  |       |
| Final review and concluding remarks   | 2     |  |       |
| Bibliography<br>1. Righting Software, Juval Lowy, O'Reilley, 2020<br>2. Project Management Institute, A Guide to the Project Management Body of Knowledge, 5th Edition, 2013.<br>3. Juana Clark Craig, Project Management Lite: Just Enough to Get the Job Done...Nothing More, 2012<br>4. The Unified Software Development Process, G. Booch, J. Rumbaugh, I. Jacobson, Addison Wesley, 1998.<br>5. Software Project Management: A Unified Framework, Walker Royce, Addison Wesley |       |  |       |
| 8.2 Applications – Seminars/Laboratory/Project  | Hours | Teaching methods   | Notes |
| -   |       |  |       |
| Bibliography<br>-   |       |  |       |

\*Se vor preciza, după caz: tematica seminariilor, lucrările de laborator, tematica și etapele proiectului.

### 9. Bridging course contents with the expectations of the representatives of the community, professional associations and employers in the field

ACM Curriculum compliant course.

### 10. Evaluation

| Activity type | Assessment criteria | Assessment methods | Weight in the final grade |
|---------------|---------------------|--------------------|---------------------------|
|---------------|---------------------|--------------------|---------------------------|

|   |   |   |      |
|---|---|---|------|
| Course  | Ability to apply appropriate PM techniques for given project situations, attendance, class activity | <b>Onsite</b> scenario: Written exam, Quizes, homeworks | 100% |
| Seminar   |   |   |      |
| Laboratory  |   |   |      |
| Project   |   |   |      |
| Minimum standard of performance:<br>Grade calculus: 60% final exam, 40% class activity (Quizes, homeworks)<br>Conditions for participating in the final exam: Attendance of lectures $\geq 50\%$<br>Conditions for promotion: final exam $\geq 5$ , class activity $\geq 5$ |   |   |      |

| Date of filling in: | Titulari     | Titlu Prenume NUME              | Semnătura |
|---------------------|--------------|---------------------------------|-----------|
|                     | Course       | Prof.dr.eng. Mihaela Dinsoreanu |           |
|                     | Applications | -                               |           |

|  |   |
|--|---|
| <b>Date of approval in the department</b>      | Head of department<br>Prof.dr.eng. Rodica Potolea |
| <b>Date of approval in the Faculty Council</b> | Dean<br>Prof.dr.eng. Liviu Miclea                 |