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 | 52. |

2. Data about the subject

| 2.1 Subject name | | | Project Elaboration Methodology | | | | |
|---|---------|----------|--|-------|---|----|--|
| 2.2 Course responsible/l | ecturer | | Assoc. prof. dr. eng. Tudor Muresan - Tudor.Muresan@cs.utcluj.ro | | | | |
| 2.3 Teachers in charge or laboratory/ project | f semin | ars/ | - | | | | |
| 2.4 Year of study | IV | 2.5 Sem | lester | 8 | 2.6 Type of assessment (E - exam, C - colloquium, V - verification) | С | |
| 2 7 Subject category | | fundamer | ntală, DD – în domeniu, DS – de specialitate, DC – complementară | | DS | | |
| | | mpusă, D | Op – opț | ional | ă, DFac – facultativă | DI | |

3. Estimated total time

| 3.1 Number of hours per week | 2 | of which: | Course | 2 | Seminars | Laboratory | Project | |
|--|---------|--------------|---------|----|----------|------------|---------|----|
| 3.2 Number of hours per semester | 28 | of which: | Course | 28 | Seminars | Laboratory | Project | |
| 3.3 Individual study: | | | | | | | | |
| (a) Manual, lecture materia | l and n | otes, biblio | ography | | | | | 20 |
| (b) Supplementary study in the library, online and in the field | | | | | | | 28 | |
| (c) Preparation for seminars/laboratory works, homework, reports, portfolios, essays | | | | | | 20 | | |
| (d) Tutoring | | | | | | | | |
| (e) Exams and tests | | | | | | | 4 | |
| (f) Other activities: | | | | | | | | |
| 3.4 Total hours of individual study | (suma | (3.3(a)3. | 3(f))) | | 72 | | | |
| 3.5 Total hours per semester (3.2+ | 3.4) | | | | 100 | | | |
| 3.6 Number of credit points | | | | | 4 | 1 | | |

4. Pre-requisites (where appropriate)

| 4.1 Curriculum | - |
|----------------|---|
| 4.2 Competence | |

5. Requirements (where appropriate)

| 5.1. For the course | |
|---------------------------|--|
| 5.2. For the applications | |

6. Specific competence

| 6.1 Professional competences | C5 - Designing, managing the lifetime cycle, integrating and ensuring the |
|------------------------------|--|
| | integrity of hardware, software and communication systems |
| | C5.1 - Specifying the relevant criteria regarding the lifetime cycle, quality, |
| | security and the computing system's interaction with the environment and the |
| | human operator |
| | C5.2 - Using interdisciplinary knowledge for adapting the computing system to |
| | the specific requirements of the application field |
| | C5.3 - Using fundamental principles and methods for ensuring the security, the |

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

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

| 7.1 General objective | 1. Ability to write a project proposal |
|-------------------------|---|
| | 2. Ability to search literature and critical evaluation |
| | 3. Ability to use related work and technical reports |
| | 4. Ability to write literature reviews |
| | 4. Ability to write project documentation |
| | 5. Ability for oral presentation |
| 7.2 Specific objectives | |

8. Contents

| 8.1 Lectures | Hours | Teaching methods | Notes |
|--|-------|--|-------|
| Introduction - Computing project types | 2 | | |
| Choosing the project | 2 | | |
| Preparing a project proposal | 2 | | |
| Research and research process | 2 | | |
| Research methods | 2 | | |
| Literature search and review | 2 | 1 | |
| The report | 2 | Using modern | |
| Structuring the report | 2 | teaching methods and internet acces | |
| Writing the report | 2 | and internet acces | |
| Citing and reference management | 2 | | |
| Reference styles | 2 | | |
| Presenting and discussions on outstanding projects | 2 | | |
| Oral presentation | 2 | 1 | |
| The talk and the defense | 2 | | |
| Bibliography | | | • |
| | | | |

1. Dawson, C.W. - Projects in Computing and Information Systems, Addison Wesley 2005

2. B. Olsson, M. Berndtsson, B. Lundell - Running Research-Oriented Final Year Projects for CS and IS Students, ACM SIGSE 2003

3. V. Bouki - Undergraduate Computer Science Projects in UK: What is the point?, Proc. of Informatics Education Europe II Conference, IEEII 2007

| 8.2 Applications – Seminars/Laboratory/Project | Hours | Teaching methods | Notes |
|--|-------|------------------|-------|
| - | | | |
| Bibliography | | | |
| | | | |

^{*}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

10. Evaluation

| Activity type | Assessment criteria | Assessment methods | Weight in the final grade |
|---------------|---------------------|-----------------------------|------------------------------|
| Course | | Oral onsite/ on-line (ZOOM) | 100% |
| Seminar | | | |
| Laboratory | | | |

| Project | | | | | |
|---------------------------------|-------------------------------------|---------------------------|--|--|--|
| Minimum standar | d of performance: | | | | |
| Grade calculus: 100% final exam | | | | | |
| Conditions for par | ticipating in the final exam: Atter | ndance of lectures >= 50% | | | |
| Conditions for pro | omotion: final exam ≥ 5 | | | | |

| Date of filling in: 30.05.2023 | Titulari | Titlu Prenume NUME | Semnătura |
|-----------------------------------|--------------|-------------------------------------|-----------|
| | Course | Assoc. prof. dr. eng. Tudor Muresan | |
| | Applications | - | |

Date of approval in the department

Head of department, Prof. dr. eng. Rodica Potolea

Date of approval in the Faculty Council

Dean, Prof. dr. eng. Liviu Miclea