



COURSE DESCRIPTION

1. Program identification information

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| 1.1 Higher education institution | National University of Science and Technology Politehnica Bucharest |
| 1.2 Faculty | Electronics, Telecommunications and Information Technology |
| 1.3 Department | Electronic Devices, Circuits and Architectures |
| 1.4 Domain of studies | Electronic Engineering, Telecommunications and Information Technology |
| 1.5 Cycle of studies | Bachelor/Undergraduate |
| 1.6 Programme of studies | Microelectronics, Optoelectronics and Nanotechnologies |

2. Date despre disciplină

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|---|---------------------------------|-----------------|---------------|----------------------|------|-------------------|---|
| 2.1 Course name (ro) (en) | Voluntariat 6 Volunteering 6 | | | | | | |
| 2.2 Course Lecturer | NA | | | | | | |
| 2.3 Instructor for practical activities | NA | | | | | | |
| 2.4 Year of studies | 3 | 2.5 Semester | 2 | 2.6. Evaluation type | V | 2.7 Course regime | F |
| 2.8 Course type | C | 2.9 Course code | 04.C.06.L.038 | 2.10 Tipul de notare | Nota | | |

3. Total estimated time (hours per semester for academic activities)

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|--|------|--------------------------|------|-------------------------|-------|
| 3.1 Number of hours per week | 0 | Out of which: 3.2 course | 0.00 | 3.3 seminary/laboratory | 0 |
| 3.4 Total hours in the curricula | 56 | Out of which: 3.5 course | 0 | 3.6 seminary/laboratory | 56 |
| Distribution of time: | | | | | hours |
| Study according to the manual, course support, bibliography and hand notes Supplemental documentation (library, electronic access resources, in the field, etc) Preparation for practical activities, homework, essays, portfolios, etc. | | | | | 8 |
| Tutoring | | | | | 9 |
| Examinations | | | | | 2 |
| Other activities (if any): | | | | | 56 |
| 3.7 Total hours of individual study | 0.00 | | | | |
| 3.8 Total hours per semester | 0 | | | | |
| 3.9 Number of ECTS credit points | 3 | | | | |

4. Prerequisites (if applicable) (where applicable)

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| 4.1 Curriculum | Not applicable |
| 4.2 Results of learning | Not applicable |

5. Necessary conditions for the optimal development of teaching activities (where applicable)

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| 5.1 Course | Not applicable |
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5.2 Seminary/
Laboratory/Project

Identifying an entity where the volunteering activity will take place.

6. General objective (*Referring to the teachers' intentions for students and to what the students will be thought during the course. It offers an idea on the position of course in the scientific domain, as well as the role it has for the study programme. The course topics, the justification of including the course in the curricula of the study programme, etc. will be described in a general manner*)

Volunteering is often considered an essential aspect of personal and social growth. Engaging in volunteer activities not only benefits the community but also has a profound impact on the volunteers themselves, especially students.

One of the main reasons students get involved in volunteering is fulfilling civic responsibility. As members of a community, students have a duty to contribute positively to improving society. Through volunteering, they actively participate in addressing social issues and making the world a better place. This sense of responsibility fosters a greater sense of belonging and connection to their community and to the world in general.

Volunteer activity provides students with opportunities for personal growth and development. Through volunteering they can develop essential life skills such as leadership, teamwork, managing critical moments/solving problematic situations, and communication. These skills are valuable not only for their future careers but also for their personal lives. In addition, volunteering can boost self-esteem and confidence, as volunteers see the tangible impact of their contribution.

Volunteer activities offer students the chance to gain real-world experience that complements academic learning. They can apply theoretical knowledge acquired through theoretical learning in practical situations, gaining a broader understanding of the issues that interest them. This practical experience can be a valuable asset when pursuing future career opportunities.

Involvement in volunteer activities provides students with an excellent platform for networking. They can connect with like-minded individuals, mentors, and professionals in their field of interest. These connections can lead to valuable insights, internships, or job opportunities in the future. Networking through volunteering can be essential in shaping their career paths.

Volunteering exposes students to diverse perspectives and life experiences that they might not encounter in everyday life. This exposure fosters empathy and a deeper understanding of the challenges others face. It encourages them to become more compassionate, aware, and socially engaged individuals, contributing to a more inclusive and understanding society.

7. Competences (*Proven capacity to use knowledge, aptitudes and personal, social and/or methodological abilities in work or study situations and for personal and professional growth. They reflect the employers requirements.*)



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| Specific Competences | <p>Needs analysis: community and social responsibility. The role of non-formal activities in sustainable development. Roles of volunteers and volunteer institutions—case study.</p> <p>Team formation and leadership: roles, responsibilities, rules. Effective group communication—role-playing.</p> <p>Problem analysis and solving: stages, analysis techniques, prioritization strategies. Conflict management in real situations by analyzing other projects and the stages followed.</p> <p>Risk management—case studies, role-playing, risk matrix analysis.</p> <p>Project management: organization, implementation, evaluation, sustainability—carrying out micro-projects.</p> <p>Analysis of university governance structures and mechanisms for student representation.</p> |
| Transversal (General) Competences | <p>Personal management: burnout, mental health, well-being. Strategies for recognition and resolution using case studies and problem situations, in line with the specifics of the organization.</p> <p>Measuring community impact. Sustainability and follow-up strategies.</p> <p>Conducting impact evaluations—case studies.</p> |

8. Learning outcomes (*Synthetic descriptions for what a student will be capable of doing or showing at the completion of a course. The learning outcomes reflect the student's accomplishments and to a lesser extent the teachers' intentions. The learning outcomes inform the students of what is expected from them with respect to performance and to obtain the desired grades and ECTS points. They are defined in concise terms, using verbs similar to the examples below and indicate what will be required for evaluation. The learning outcomes will be formulated so that the correlation with the competences defined in section 7 is highlighted.*)

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| Knowledge | <p><i>The result of knowledge acquisition through learning. The knowledge represents the totality of facts, principles, theories and practices for a given work or study field. They can be theoretical and/or factual.</i></p> <ul style="list-style-type: none">• Identifying the basic elements and characteristics of the community.• Determining the parameters/levels of the individual–community relationship.• Identifying problem situations and ways to solve them.• Determining the particularities of a prosperous, viable, and dynamic community.• Determining the impact of volunteering activities on the community or cause, considering tangible results such as the number of people helped, improvements made, or positive changes achieved.• Carrying out a basic analysis of the needs of the volunteering community.• Differentiating potential sources of conflict and analyzing the risk of their occurrence.• Identifying the steps to solve a problem.• Differentiating cause–effect analysis, from the perspective of applying alternative solutions.• Developing effective communication strategies within a community with multiple roles and responsibilities.• Establishing and analyzing the roles of effective teams. |
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| <p>Skills</p> | <p><i>The capacity to apply the knowledge and use the know-how for completing tasks and solving problems. The skills are described as being cognitive (requiring the use of logical, intuitive and creative thinking) or practical (implying manual dexterity and the use of methods, materials, tools and instrumentation).</i></p> <ul style="list-style-type: none">• Community involvement and empathy: developing a broader understanding of community needs and cultivating empathy through active participation in volunteering activities, ultimately promoting a greater sense of social responsibility.• Communication and teamwork: improving communication and teamwork skills, learning to work effectively with people from different backgrounds and perspectives.• Problem solving and critical thinking: engaging in identifying critical solutions and developing creative problem-solving skills as they encounter and address real-world issues within the community.• Leadership and initiative: taking on leadership roles in volunteer projects, boosting leadership and initiative skills while learning to organize and motivate volunteer teams to achieve common goals.• Interpersonal knowledge and self-awareness skills: encouraging volunteers to reflect on their values and beliefs and the impact of their actions on others, leading to personal growth, greater self-awareness, and a stronger sense of usefulness.• Time management: balancing volunteer work with academic commitments teaches students time management skills, helping them prioritize tasks and meet deadlines efficiently. |
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Responsability
and autonomy

The student's capacity to autonomously and responsibly apply their knowledge and skills.

- Promoting social responsibility by engaging in community service projects, such as organizing neighborhood clean-up actions, food collection campaigns, or tutoring sessions for disadvantaged children.
- Promoting understanding and cultural integration based on organizing cultural exchange events, foreign language courses, or intercultural dialogues to foster a more inclusive community.
- Selecting appropriate bibliographic sources and analyzing them, without disclosing personal data.
- Respecting the principles of social ethics, taking into account the needs of vulnerable groups and the respect owed to them.
- Demonstrating receptiveness to new learning contexts.
- Showing collaboration with other colleagues and facilitators to identify and solve community problems.
- Demonstrating autonomy in organizing the learning situation/context or the problem situation to be solved, analyzing the risks that may arise.
- Demonstrating social responsibility through active involvement in social life, through well-defined ideas.
- Promoting/contributing with innovative solutions to improve the quality of social life, considering the analysis of the environment involved in the community.
- Becoming aware of the value of their contribution in the field of science and technology and identifying viable/sustainable solutions to solve problems in social and economic life (social responsibility).
- Applying principles of professional ethics/deontology in analyzing the social impact of solutions proposed within the community where they carry out their volunteering activity.
- Analyzing and capitalizing on development opportunities within the community, with the involvement of multiple actors (economic, social, family, etc.).
- Demonstrating crisis management skills due to risks within specific activities (time management, collaboration vs. conflict).
- Planning events, marketing, fundraising, or leadership through practical experience.

9. Teaching techniques (*Student centric techniques will be considered. The means for students to participate in defining their own study path, the identification of eventual fallbacks and the remedial measures that will be adopted in those cases will be described.*)

Teaching methods in volunteering activities may vary depending on the nature of the activity and the audience involved, as well as the specifics of the organization where the volunteering activities take place. These can be multiple, without being limited to the following:

Lectures or presentations: Volunteers can be trained through traditional lectures or presentations in which a knowledgeable person conveys information on a particular subject.

Practical training: Hands-on practical training is an effective method, especially for tasks that require specific skills, such as construction, gardening, or cooking.

Mentorship and apprenticeship: Working in mixed teams, pairing experienced volunteers with newcomers as mentors or apprentices, allows for individual guidance and learning through observation and practice.



Demonstrations: Presenting a task or skill through demonstrations helps volunteers understand the process before trying it themselves.

Group conversations: Group discussions encourage volunteers to share experiences, questions, and ideas, promoting peer learning and problem solving.

Role-playing: This method is useful for scenarios involving interpersonal skills, conflict resolution, or crisis management, allowing volunteers to practice and refine their responses.

Simulation games: Simulations can be used to imitate real-life situations, helping volunteers prepare for emergencies, disaster relief efforts, or specific roles.

Interactive workshops: Workshops provide an interactive environment for learning, including activities, exercises, and group participation to reinforce concepts.

E-learning and online modules: In today’s digital age, volunteers can access online courses, webinars, and educational modules to acquire knowledge and skills remotely.

Field trips and on-site visits: Inviting volunteers to relevant locations or projects allows them to observe and learn in real-world contexts.

Storytelling: Sharing stories and personal experiences can be a powerful way to convey lessons, create empathy, and inspire volunteers.

Problem-based learning: Volunteers are presented with real-world problems and challenges and work collaboratively to find solutions, promoting critical thinking and problem-solving skills.

Peer teaching: Encouraging more experienced volunteers to teach and guide newcomers, creating a supportive learning community.

Case studies: Analyzing real or hypothetical cases and discussing lessons learned can be an effective way to teach problem solving and decision making.

Reflection journals: Encouraging volunteers to keep journals or blogs to record their experiences, thoughts, and lessons learned.

10. Contents

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| Bibliography: |
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11. Evaluation

| Activity type | 11.1 Evaluation criteria | 11.2 Evaluation methods | 11.3 Percentage of final grade |
|---|--|-------------------------|--------------------------------|
| 11.4 Course | | | |
| 11.5 Seminary/laboratory/project | - active participation in organized activities; - development of the volunteering portfolio according to the methodology. | project | 100% |
| 11.6 Passing conditions | | | |
| Participation in and/or management of at least one project within the volunteering community. | | | |



Universitatea Națională de Știință și Tehnologie Politehnica București

Facultatea de Electronică, Telecomunicații și

Tehnologia Informației



12. Corroborate the content of the course with the expectations of representatives of employers and representative professional associations in the field of the program, as well as with the current state of knowledge in the scientific field approached and practices in higher education institutions in the European Higher Education Area (EHEA)

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| Date | Course lecturer | Instructor(s) for practical activities |
|------------|-----------------|--|
| 25.09.2025 | NA | NA |

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| Date of department approval | Head of department |
| 26.09.2025 | Prof. Dr. Claudiu Dan  |

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|---|---|
| Date of approval in the Faculty Council | Dean |
| 26.09.2025 | Prof. Dr. Mihnea Udrea  |