**Universitatea Naţională de Ştiinţă şi Tehnologie Politehnica Bucureşti**
**Facultatea de Electronică, Telecomunicaţii şi**
**Tehnologia Informaţiei**

# 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)<br>(en) | | | | Practică pedagogică de specialitate în învăţământul preuniversitar 1<br>Teaching Practice in Compulsory Pre-university Education (1) | | | |
| 2.2 Course Lecturer | | | | NA | | | |
| 2.3 Instructor for practical activities | | | | NA | | | |
| 2.4 Year of studies | 3 | 2.5 Semester | 1 | 2.6. Evaluation type | V | 2.7 Course regime | F |
| 2.8 Course type | | C | 2.9 Course code | 04.C.05.L.030 | | 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 | 0.00 | Out of which: 3.5 course | 0 | 3.6 seminary/laboratory | 0 |
| Distribution of time: | | | | | hours |
| Study according to the manual, course support, bibliography and hand notes<br>Supplemental documentation (library, electronic access resources, in the field, etc)<br>Preparation for practical activities, homework, essays, portfolios, etc. | | | | | 30 |
| Tutoring | | | | | 7 |
| Examinations | | | | | 3 |
| Other activities (if any): | | | | | 35 |

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| 3.7 Total hours of individual study | 75.00 |
| 3.8 Total hours per semester | 75 |
| 3.9 Number of ECTS credit points | 3 |

## 4. Prerequisites (if applicable) (where applicable)

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| 4.1 Curriculum | Completion of the courses Psychology of Education, Pedagogy I, Pedagogy II, Didactics of the Specialty, Teaching Practice 1 |
| 4.2 Results of learning | Specific to the psychopedagogical module for the teaching profession |

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

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| 5.1 Course | Not applicable |
| 5.2 Seminary/ Laboratory/Project | In application schools |

**6. General objective** *(Reffering 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 currcula of the study programme, etc. will be described in a general manner)*

The subject Teaching Practice is studied within the Psychopedagogical Training Program for certifying competencies for the teaching profession – Level II, dedicated to master's students who wish to train for a teaching career at the level of pre-university education, upper secondary cycle, in their field of specialization, having an applied character.

Through its applied specificity, the subject develops competencies for designing and delivering teaching activities in upper secondary, post-secondary and university education, and knowledge of assessment methods in technical subjects.

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

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| **Specific Competences** | • Familiarization with the application school<br>• Presentation of the school's organization, methodological and professional development activities, laboratories, library, etc.; Analysis of curricular documents; Understanding the role of the Pedagogical Council and the various methodological committees in the school.<br>• Observation of different types of activities carried out in the school<br>• Students' attendance at the mentor's teaching activities. Completion of observation sheets. Attendance at extracurricular activities. Analysis of planning documents prepared by teachers.<br>• Administering an interview guide to a student. Activities for studying students' personality through discussions with them and with teachers, and through analysis of school documents.<br>• Delivering a teaching activity in specialty subjects. Analysis of the delivered lesson together with the mentor teacher and the practice group colleagues. |
| **Transversal (General) Competences** | - |

**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 acomplishments 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** | *The result of knowledge aquisition through learning. The knowledge represents the totality of facts, priciples, theories and practices for a given work or study field. They can be theoretical and/or factual.*<br><br>• Defines the concepts specific to the subject.<br>• Designs different types of teaching activities in upper secondary, post-secondary and university education.<br>• Identifies types of tools and digital technologies that can be used in planning and organization, in teaching–learning–assessment,<br>• in creating blended-learning contexts, as well as in communication with educational stakeholders (students, teachers, parents).<br>• Uses specific knowledge related to integrating new technologies in teaching activity and creating new teaching resources.<br>• Highlights the existence of causal relationships between social factors and the quality of the instructional–educational process.<br>• Develops and applies assessment tools. |
| **Skills** | *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 intrumentation).*<br><br>• Develops teamwork skills and identifies possibilities for stimulating individual and group creativity.<br>• Identifies solutions and develops plans based on knowledge from the psychopedagogy of the adolescent, young person and adult to optimize the teaching–learning process.<br>• Identifies the types of activities carried out in upper secondary, post-secondary and university education.<br>• Properly fulfills the requirements/tasks.<br>• Selects and groups relevant information according to the requirements/tasks.<br>• Analyzes and compares the characteristics of the backgrounds of the presented cases.<br>• Properly interprets the causal relationships existing in the socio-educational field.<br>• Identifies appropriate intervention strategies in educational crisis situations.<br>• Properly argues the way of solving/intervening in an educational crisis situation.<br>• Formulates pertinent conclusions adapted to the current socio-educational context. |

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| **Responsability and autonomy** | *The student's capacity to autonomously and responsably apply their knowledge and skills.*<br>• Selects suitable bibliographic sources and deepens their contents.<br>• Respects the principles of academic ethics by correctly citing the bibliographic sources used.<br>• Demonstrates receptiveness to new learning contexts.<br>• Collaborates with colleagues and teaching staff in carrying out teaching activities.<br>• Demonstrates autonomy in organizing the learning context or the problem situation to be solved.<br>• Identifies roles and responsibilities in a multidisciplinary team and applies techniques for effective relationships and work within the team.<br>• Responsibly applies the principles, norms and values of professional ethics in fulfilling professional tasks.<br>• Ability to communicate with superior hierarchical structures and with the team under one's coordination.<br>• Ability for professional relationships and complex communication with pupils/students.<br>• Ability for professional relationships and communication with the teaching practice mentor. |

**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.)*

The following teaching methods will be used: both expository (lecture, presentation using PPT or video materials) and conversational–interactive, based on discovery learning models facilitated by direct and indirect exploration of reality (experiment, demonstration, modeling), as well as action-based methods such as exercise and projects.

Starting from the analysis of the master's students' learning characteristics and their specific needs, the teaching process will explore both expository methods (lecture, presentation, storytelling, explanation, description, debate) and conversational–interactive methods (conversation, problematization) based on discovery learning models facilitated by direct and indirect exploration of reality (experiment, demonstration, modeling), as well as action-based methods such as exercise, case study, practical work, project, role-play.

In the teaching activity, both expository methods and analysis activities, case studies and problem situations will be used, based on presentations or through the use of different teaching aids that will be made available to the master's students. The presentations use images and diagrams so that the presented information is easy to understand and assimilate.

This subject covers information and practical activities meant to support master's students in their learning efforts and in developing optimal collaboration and communication relationships in a climate favorable to discovery learning.

Practicing active listening and assertive communication skills will be pursued, as well as the mechanisms of constructing feedback, as means of behavioral regulation in various situations and of adapting the pedagogical approach to the learning needs of the master's students.

The ability to work in a team will be practiced for solving different learning tasks, as well as knowledge of assessment methods in technical subjects.

**10. Contents**

| **Bibliography:**<br>- |
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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 | Presentation of all required documents<br>Correctness of the prepared documents. Defense of the trial lesson and the final lesson | Formative assessment<br>Portfolio | 100% |
| 11.5 Seminary/laboratory/project | | | |
| 11.6 Passing conditions | | | |
| Obtaining at least 50% of the total score | | | |

**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 |
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| 25.09.2025 | NA | NA |

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

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