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

COURSE DESCRIPTION

1. Program identification information

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

2.1 Course name (ro) (en)				Examen de absolvire: Nivelul I Graduation Exam: Level I			
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	E	2.7 Course regime	F
2.8 Course type		C	2.9 Course code	04.C.06.L.037		2.10 Tipul de notare	Nota

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

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 Supplemental documentation (library, electronic access resources, in the field, etc) Preparation for practical activities, homework, essays, portfolios, etc.					120
Tutoring					0
Examinations					5
Other activities (if any):					0

3.7 Total hours of individual study	125.00
3.8 Total hours per semester	125
3.9 Number of ECTS credit points	5

4. Prerequisites (if applicable) (where applicable)

4.1 Curriculum	Completion of the courses Psychology of Education, Pedagogy 1 (Foundations of Pedagogy. Theory and Methodology of the Curriculum); Pedagogy 2 (Theory and Methodology of Instruction); Didactics of the Specialty; Computer-Assisted Instruction; Classroom Management; Teaching Practice in Compulsory Pre-university Education 1 and 2.
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)

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)*

Graduation Exam, Level I is the exam that certifies the formation of competencies to deliver different types of teaching activities developed over the 6 semesters by completing the courses within the Psychopedagogical Training Program for certifying competencies for the teaching profession, Level I. In this evaluation, the theoretical knowledge acquired by students in the courses studied within the training program is verified—knowledge concerning the organization, design, and conduct of teaching activities in technical upper secondary and post-secondary education, according to profile and specialization, from an inter- and transdisciplinary perspective.

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.)*

Specific Competences	• Structure, drafting, presentation, evaluation of the portfolio. Annexes (materials considered conclusive for the activities carried out during the teaching practice or the training program) • Preparation of the teaching portfolio
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.)*

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.* • Identifies the main curricular documents in technical and vocational education. • Identifies ways of interdisciplinary approaches to content. • Gives examples of interdisciplinary teaching strategies. • Describes methodologies specific to teaching specialty modules. • Identifies reflection tools. • Highlights the particularities of assessment and grading in specialty subjects/modules. • Describes the structure of an instructional project for specialty subjects/modules. • Identifies teaching–learning–assessment software.
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).* • Uses methods specific to specialty subjects/modules. • Designs concrete teaching–learning situations. • Uses new technologies in transdisciplinary design in technical and vocational education. • Designs assessment tools for school outcomes from a transdisciplinary perspective. • Develops interdisciplinary projects in teams. • Communicates project results effectively. • Uses software/platforms for teaching–learning–assessment.
Responsability and autonomy	*The student's capacity to autonomously and responsably apply their knowledge and skills.* • Respects the principles of academic ethics by correctly citing the bibliographic sources used. • Demonstrates receptiveness to new learning contexts. • Continuously documents from scientifically grounded sources. • Critically analyzes information sources. • Demonstrates autonomy in organizing the learning situation/context or the problem situation to be solved. • Demonstrates autonomy in selecting and using IT tools for teaching–learning–assessment.

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.)*

Starting from the analysis of master's students' learning characteristics and their specific needs, the evaluation 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.

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 master's students.

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

10. Contents

Bibliography: -

11. Evaluation

Activity type	11.1 Evaluation criteria	11.2 Evaluation methods	11.3 Percentage of final grade
11.4 Course	Elaboration of a teaching portfolio; this is a set of documents that synthetically reflects the level and quality of the competencies acquired by graduates through completing the psychopedagogical training program. The portfolio will be presented orally and uploaded (scanned) to the Moodle platform in the Final Exam section.	Oral presentation	100%
11.5 Seminary/laboratory/project			
11.6 Passing conditions			
Full completion of the courses within the Psychopedagogical Training Program Level I (Psychology of Education, Pedagogy I, Pedagogy II, Didactics of the Specialty, Computer-Assisted Instruction, Classroom Management, Teaching Practice I and Teaching Practice II). Preparation and defense of the teaching portfolio.			

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