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)				Pedagogie I: - Fundamentele pedagogiei - Teoria şi metodologia curriculumului Pedagogy I: The Fundamentals of Pedagogy – Curriculum Theory and Methodology			
2.2 Course Lecturer				Balanescu Ramona			
2.3 Instructor for practical activities				Balanescu Ramona			
2.4 Year of studies	1	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.02.L.029		2.10 Tipul de notare	Nota

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

3.1 Number of hours per week	4	Out of which: 3.2 course	2	3.3 seminary/laboratory	2
3.4 Total hours in the curricula	56	Out of which: 3.5 course	28	3.6 seminary/laboratory	28
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.					45
Tutoring					10
Examinations					4
Other activities (if any):					10

3.7 Total hours of individual study	69.00
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 and/or passing of the course Educational Psychology

4.2 Results of learning	Acquisition of the following knowledge: • Lists the factors of psychological development; • Identifies types of attachment; • Defines intellectual, affective, and volitional psychic processes; • Describes the fundamental theories of the structure and development of personality; • Identifies temperamental, aptitudinal, and character traits and highlights the relationships between them; • Identifies the stages of human psychological development; • Describes the main learning theories; • Identifies types of learning; • Explains how students' affectivity and motivation change and what changes occur in their activities and relationships; • Describes the role of emotional intelligence; • Analyzes the role of self-image and its relationship with students' affectivity; • Communicates effectively in conflict situations; • Uses the particularities of effective interaction and communication in different educational situations; • Becomes aware of the psychological causality of students' behaviors; • Communicates assertively with students, colleagues, and authorities; • Describes appropriate strategies to stimulate students' motivation for learning; • Uses psychic processes to turn educational tasks into creative and stimulating activities; • Adapts to students' individual needs.

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

5.1 Course	The course will take place in a room equipped with a video projector and computer. Electronic course support is provided (on the course platform). The lectures are accompanied by diagrams, sketches, and charts presented via video projector.
5.2 Seminary/ Laboratory/Project	The seminar will take place in a room equipped with a video projector and computer. Bibliographic resources, worksheets, and curricular documents are provided.

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)*

This course is studied within the field of educational sciences as an integral part of the basic, initial psycho-pedagogical training for the teaching career. It includes both introductory elements regarding pedagogical issues and introductory elements regarding curriculum theory and methodology.

The general objective is to familiarize students with the fundamental concepts, the main theories, and models for analyzing education and curriculum.

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	• Knowledge and understanding: defining and appropriately using key concepts from educational sciences (formal/non-formal/informal education, purposes, objectives, competencies) and the components of the curriculum. • Explanation and interpretation: critical analysis of the purposes of education and models of curricular structuring, including curricular integration (mono-/multi-/inter-/transdisciplinary). • Instrumental–applicative: designing learning activities and analyzing school documents (frameworks, syllabi, textbooks) in relation to the targeted competencies and the criteria for content selection. • Pedagogical research: developing an educational research design and applying specific methods (questionnaire, interview, experiment, case study) to investigate educational issues. • Counseling and guidance: applying the stages of the counseling process and valuing the homeroom teacher’s role in students’ school and career guidance. • Evaluation and improvement: using indicators and performance criteria to interpret learning outcomes and to formulate decisions for optimizing the didactic approach.
Transversal (General) Competences	• Autonomous integration of knowledge: independently mobilizing and combining knowledge and professional skills in varied educational contexts. • Critical thinking and academic ethics: selecting and analyzing relevant sources and observing ethical norms and citation rules. • Communication and collaboration: effective teamwork, assertive communication, and constructing feedback for learning regulation. • Social and professional responsibility: involvement in the academic community and adopting a reflective attitude toward the quality of education. • Adaptability and lifelong learning: receptivity to new learning contexts and using self-assessment for continuous professional development.

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.* • Characterizes the fundamental issues regarding the functions, forms, dimensions, and directions of the development of education; • Argues the role of education in the development of the student's personality; • Highlights the necessity of education as a lifelong process; • Defines domain-specific notions such as educability, purposes of education, • ideal, goals, objectives, competencies, school counseling, school and career guidance; • Highlights the applicability of pedagogical research from the perspective of quality assurance in education; • Presents the stages of conducting research based on the principle of logical and chronological succession; • Describes the issues of official school documents through which the content of education is objectified; • Describes models of curriculum analysis and types of curriculum;
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).* • Identifies ways of achieving in school the objectives of each dimension of education; • Critically analyzes school documents for technological subjects; • Applies in practice, using appropriate exemplification of concepts, techniques specific to the school counseling process; • Develops the design of educational research for a problem specific to the field; • Develops learning activities that contribute to the development of key competencies;
Responsability and autonomy	*The student's capacity to autonomously and responsably apply their knowledge and skills.* • Shows social responsibility through active involvement in student social life/involvement in events in the academic community; • Promotes/contributes new solutions, related to the field of specialization, to improve the quality of social life; • Selects suitable bibliographic sources and analyzes them; • Respects the principles of academic ethics, correctly citing the bibliographic sources used; • Demonstrates receptivity to new learning contexts; • Shows collaboration with other colleagues and teaching staff in carrying out teaching activities; • Demonstrates autonomy in organizing the learning situation/context or the problem situation to be solved; • Demonstrates management skills for real-life situations (time management, collaboration vs. conflict). • Shows a responsible attitude towards professional training for the teaching career and quality assurance in education; • Develops a reflective attitude regarding the homeroom teacher's role in school and career guidance.

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

Both expository methods and activities of analysis, case studies, and problem situations will be used, based on presentations or by using various teaching aids that will be made available to students. Each lecture will begin with a review of the chapters already covered, with emphasis on the notions covered in the previous lecture. The presentations use images and diagrams so that the information presented is easy to understand and assimilate.

This course covers information and practical activities designed to support students in their learning efforts and in developing optimal relationships of collaboration and communication in a climate conducive to discovery learning.

Active listening and assertive communication skills will be practiced, as well as feedback construction mechanisms, as means of behavioral regulation in various situations and of adapting the pedagogical approach to students' learning needs.

Teamwork skills will be practiced to solve different learning tasks.

10. Contents

COURSE		
Chapter	**Content**	**No. hours**
1	Introductory course What does it mean to be a teacher?; Usefulness of the psycho-pedagogical training program for the teaching career. 2	2
2	Education – the object of study of pedagogy: The scientific character of pedagogy; Pedagogical disciplines, branches of pedagogy, educational sciences; Interrelations of pedagogy with other sciences. Conceptual clarifications and various interpretations of the term education; Functions of education. Forms of education: formal, non-formal, and informal education. Determining factors in the formation of the human personality. Classical and new dimensions of education. 6	6
3	Lifelong learning: Self-education: The relationship between education and self-education; Characteristics and dimensions of self-education; Adult education: principles, objectives, specificity, forms and programs. Initial training vs. continuing training	2

4	The Romanian education system: Structure and interrelations; Comparative analysis of different educational systems.	2
5	Pedagogical research in education: Pedagogical research – stages and methodology of pedagogical research (research methods: questionnaire survey, experiment, interview, case study). 2	2
6	The purposes of education: The ideal, goals, and objectives of education; Competencies, indicators, and performance criteria	4
7	School curriculum. The content of education – a component of the curriculum. Curricular products. Curricular components and types; Characteristics and criteria for the selection of educational content; Guidelines regarding the structure of content in vocational and technical education; Curricular integration (definition and levels of integration: mono-, multi-, inter-, transdisciplinary; STEM approach); Frameworks, syllabi, and textbook.	8
8	Counseling and guidance: Conceptual delimitations; Objectives and characteristics; Stages of the counseling process; Particularities of the curricular area Counseling and guidance; The role of the homeroom teacher in students' counseling and guidance.	2
	Total:	28

Bibliography:

1. Suport electronic - platforma Moodle
2. Antonesei, L., Popa, L. N., & Labăr, A. (2009). Ghid pentru cercetarea educaţiei. Iaşi: Polirom.
3. Babbie, E. (2010). Practica cercetării sociale. Iași: Polirom.
4. Băban, A. (2001). Consiliere educaţională – Ghid metodologic pentru orele de dirigenţie şi consiliere. Cluj- Napoca: Asociația de Științe Cognitive din România.
5. Belmont, J.A. (2015). 103 activități de grup. București: Editura Trei.
6. Blândul, V.C. (coord.). (2017). 50 de Jocuri și activități specifice educației non-formale. București: Editura Mega.
7. Borzea Popovici, A. (2017). Integrarea curriculară și dezvoltarea capacităților cognitive. Iași: Polirom.
8. Carter, J. (2011). Over 600 Icebreakers & Games: Hundreds of ice breaker questions, team building gamesand warm-up activities for your small group or team. Hope Books.
9. Ciolan, L. (2013). Învăţarea integrată. Fundamente pentru un curriculum transdisciplinar. Iaşi: Polirom.
10. Cristea, S. (2010). Fundamentele pedagogiei. Iaşi: Polirom.
11. Cohen, L., Manion, L., & Morrison, K. (2002). Research methods in education. Routledge.
12. Cozolino, L. (2017). Predarea bazată pe atașament. Cum să creezi o clasă tribală. București: Editura Trei.
13. Cucoș, C. (2017). Educația: reîntemeieri, dinamici, prefigurări. Iași: Polirom.
14. Cucoș, C. (2015). Pedagogie, ediția a III-a. Iași: Polirom.
15. Culidiuc, T. (coord.) (2016). IMPACT – Jocuri și povestiri Metode de educație nonformală (ed. a II-a). Disponibil la http://www.noi-orizonturi.ro/wp- content/uploads/2017/01/IMPACT-Culegere-de-jocuri-%C8%99i-povestiri.pdf
16. Dawson, K., Kiger Lee, B. (2018). Drama-based Pedagogy: Activating Learning Across the Curriculum(Theatre in Education). Chicago: The University of Chicago Press.

SEMINARY

Crt. no.	Content	No. hours
1	What does it mean to be a teacher? Interknowledge techniques and methods	2
2	Education – the object of study of pedagogy: Formal–non-formal–informal education: continuity and interdependence Non-formal education methods School–family–community partnership Analysis of the new educations	6
3	Lifelong learning: Personal development Training vs. traditional learning Initial training vs. continuing training applied in the teaching profession	2
4	The Romanian education system: Comparative analysis of different educational systems; analysis of the PISA report	2

5	Pedagogical research in education: Research design Interpretation and dissemination of research results (social and educational research reports). Development of data collection instruments	2
6	The purposes of education: The educational ideal of the Romanian school – critical analysis Levels of competence formation Key competencies	4
7	School curriculum. The content of education – a component of the curriculum. Curricular products. School time. Evaluation of the main curricular products using appropriate criteria, methods, and tools. Analysis of framework plans and school syllabi (core subjects and integrated optional subjects).	8
8	Counseling and guidance: Ways for the homeroom teacher to learn about students' personalities; Individualized approaches in understanding and counseling students; The curricular area Counseling and Guidance: examples	2
	Total:	28

Bibliography:

1. Suport electronic - platforma Moodle
2. Antonesei, L., Popa, L. N., & Labăr, A. (2009). Ghid pentru cercetarea educaţiei. Iaşi: Polirom.
3. Babbie, E. (2010). Practica cercetării sociale. Iaşi: Polirom.
4. Băban, A. (2001). Consiliere educaţională – Ghid metodologic pentru orele de dirigenţie şi consiliere. Cluj- Napoca: Asociația de Științe Cognitive din România.
5. Blândul, V.C. (coord.). (2017). 50 de Jocuri și activități specifice educației non-formale. București: Editura Mega.
6. Carter, J. (2011). Over 600 Icebreakers & Games: Hundreds of ice breaker questions, team building gamesand warm-up activities for your small group or team. Hope Books.
7. Ciolan, L. (2013). Învăţarea integrată. Fundamente pentru un curriculum transdisciplinar. Iaşi: Polirom.
8. Cristea, S. (2010). Fundamentele pedagogiei. Iaşi: Polirom.
9. Cohen, L., Manion, L., & Morrison, K. (2002). Research methods in education. Routledge.
10. Cozolino, L. (2017). Predarea bazată pe atașament. Cum să creezi o clasă tribală. București: Editura Trei.
11. Cucoș, C. (2017). Educația: reîntemeieri, dinamici, prefigurări. Iași: Polirom.

11. Evaluation

Activity type	11.1 Evaluation criteria	11.2 Evaluation methods	11.3 Percentage of final grade

11.4 Course	Active participation in discussions during lectures; Argumentation on course topics and use of specialized language. Ability to apply learned notions	Oral evaluation	30%
	Exam	Written evaluation	20%
11.5 Seminary/laboratory/project	Active participation in discussions during seminar activities; Argumentation on seminar topics and use of specialized language. Completion of assignments and applications proposed by the seminar holder. Case studies, projects, portfolio	Formative evaluation Ongoing oral check/Verbal appraisal Alternative evaluation (project)	50%
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
25.09.2025	Balanescu Ramona	Balanescu Ramona

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

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