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)				Psihologie Psychology			
2.2 Course Lecturer				Assoc. Prof. Dr. Balgiu Beatrice Adriana			
2.3 Instructor for practical activities				NA			
2.4 Year of studies	1	2.5 Semester	2	2.6. Evaluation type	V	2.7 Course regime	Op
2.8 Course type		C	2.9 Course code	04.C.02.A.020		2.10 Tipul de notare	Nota

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

3.1 Number of hours per week	2	Out of which: 3.2 course	2	3.3 seminary/laboratory	0
3.4 Total hours in the curricula	28	Out of which: 3.5 course	28	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.					20
Tutoring					0
Examinations					2
Other activities (if any):					0

3.7 Total hours of individual study	22.00
3.8 Total hours per semester	50
3.9 Number of ECTS credit points	2

4. Prerequisites (if applicable) (where applicable)

4.1 Curriculum	Not applicable
4.2 Results of learning	Not applicable

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

5.1 Course	The existence of an amphitheater appropriately equipped to ensure at least 1 m/2 per student Classroom, video projector, Moodle and Microsoft Teams platforms
5.2 Seminary/ Laboratory/Project	Not applicable

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 course aims to develop an integrative understanding of mental processes, personality, and the cognitive, emotional, and motivational factors that influence individual and group human behavior. Through theoretical content and practical applications, the course seeks to build the capacity for psychological analysis of interpersonal and organizational situations, stimulate creativity, and develop communication and collaboration skills in teams.

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	-
Transversal (General) Competences	Methodical analysis of problems encountered in activity, identifying elements for which there are established solutions, thus ensuring the fulfillment of professional tasks Knowledge of hierarchical levels, efficient exchange of information at each level, defining activities by stages, and assigning them to subordinates with a complete explanation of duties Ability to adapt to new technologies and to document oneself in Romanian and, at least, in a widely spoken international language, for professional and personal development through continuous training

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.* At the end of the semester, students will be able to demonstrate: Knowledge of the main theories and explanatory models of individual and group human behavior; · Familiarity with concepts and techniques for analyzing interpersonal relationships and organizational processes; · Understanding the psychological mechanisms involved in communication, motivation, and decision-making; · Knowledge regarding strategies for integrating and optimizing personality in a social and professional context.

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).* At the end of the semester, students will be able to demonstrate · The ability to analyze and interpret concrete situations through the lens of psychological theories; · The ability to recognize and use psychological concepts in practical and professional contexts; · Competencies in effective communication and building authentic relationships with others; · Teamwork skills through role-play and collaborative activities; · The capacity to apply methods of observation, analysis, and problem-solving in organizational and interpersonal contexts; · Critical use of theoretical and practical resources for personal and professional development.
Responsability and autonomy	*The student's capacity to autonomously and responsably apply their knowledge and skills.* At the end of the semester, students will be able to: · Select and analyze appropriate bibliographic sources while respecting the principles of academic ethics. · Demonstrate receptiveness to new learning contexts. · Demonstrate autonomy in organizing the learning situation/context or the problem situation to be solved · Promote/contribute with new solutions related to the field of specialization in order to improve the quality of social life. · Apply elements of emotional intelligence, namely assertiveness and control/mastery of emotions in different situations

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.)*

Given the students' learning characteristics and their specific needs, the teaching process will use a combination of expository methods (lecture, presentation) and conversational-interactive methods designed to stimulate students' active involvement. These will be complemented by discovery learning strategies, using demonstration and modeling. Action-based methods will also be applied, such as exercises, practical activities, and problem-solving, to support the transfer of theoretical knowledge into applied contexts. In seminars, activities will aim to reinforce the information presented in the course, using PowerPoint presentations, exercises, applications, and role-playing, as well as the analysis of video materials. All materials used will also be accessible online, on the Microsoft Teams and Moodle platforms.

10. Contents

COURSE		
Chapter	**Content**	**No. hours**
1	The human psychic system and the brain. Lateral and whole brain. Its implications for interrelation, communication, and creativity. Elements of neuro-linguistic programming.	2
2	Aptitudinal factors of a high-performing personality. The intelligence–creativity relationship. Emotional intelligence. 3D visualization and abstract intelligence—skills specific to performance in engineering.	2

3	Attitudinal factors of personality. Group motives. Motivation in work activity. Motivation and personality. Motivational theories. The practice of motivation. Money as a motivator. Job design and setting objectives.	2
4	Cognitive style—the interface between abilities and personality. Taxonomies of cognitive styles and cognitive specifics in the engineering field.	2
5	Personality psychology. Theories of personality: factorial, existentialist–phenomenological, psychoanalytic, transactional, etc. The Big Five model.	2
6	Psychopathology of personality. Medical–nosographic orientation. Psychological–ethical orientation. Nosographic entities. Disorders of thinking, will, communication, etc.	2
7	Transactional analysis—a theory of personality and communication. Personality states and the laws of communication. Strokes. Interpersonalization. Types of transactions. Psychological games. Psychotherapy	2
8	Technical creativity. Explanatory models of creativity. Methods to stimulate creative potential: From brainstorming to the metaphorical scenario	2
9	Interpersonal communication and knowledge. Decoding communication. Functions and axioms of communication. Verbal and nonverbal communication. Redundancy and error detection in communication, etc. Theories of interpersonal communication	2
10	Methods for activating work teams. Developing a holistic perception of the other by simultaneously integrating sensory, affective, intellectual, and social dimensions.	2
11	The importance of studying organizational behavior. Traditional and modern approaches. Organizational behavior and management. Managerial roles and activities. Evaluation in organizations. Theory of planned behavior	2
12	Positive psychology at the organizational level. Concepts of well-being, resilience, and psychological capital. The broaden-and-build theory.	2
13	The self-concept and its importance in creativity and communication. Creative self-efficacy and creative personal identity and their relevance to performance; Curiosity—the desire to explore novelty.	2
14	Assessment test	2
	Total:	28

Bibliography:

Balgiu B.A., Curs Psihologie, link Moodle:https://archive.curs.upb.ro/2024/course/view.php?id=10742

Balgiu, B.A. Measurement of the Main Factors Involved in Teleworking: Validation of the E-work Life Scale Among Romanian Teleworkers. *Work-A journal of Prevention, Assessment & Rehabilitation*, 74(2), p. 699-709, 2023

Balgiu, B.A. *Communication Styles Inventory-Brief Version (CSI-BV): Preliminary Validation among Romanian Students*, Revista de Psihologie, 69(4): 277-292, 2023

Pânișoară, G. *Rezilienţa. Calea spre succes şi echilibru*, Iaşi Polirom, 2024

Szentágotai-Tătar,A., David, D.,*Tratat de psihologie pozitivă*, Bucuresti, Polirom, 2017.
Wickman, G. *Salt in antreprenoriat*, Bucureşti, Editura Act si Politon, 2022.

Bibliography:

11. Evaluation

Activity type	11.1 Evaluation criteria	11.2 Evaluation methods	11.3 Percentage of final grade
11.4 Course	Assimilation of the knowledge presented during the semester, the ability to apply this knowledge to solve various types of exercises/applications	solving various types of exercises/applications	80
	Assimilation of the knowledge presented during the semester, the ability to apply this knowledge to solve various types of exercises/applications	Check (final test)	20
11.5 Seminary/laboratory/project			
11.6 Passing conditions			
or courses assessed by verification, at least 80% of the evaluation is allocated to the activity during the semester, and the rest is allocated to the final verification.			

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)

The **Psychology** course supports the development of students' personal, social, and professional competencies in the technical field, complementing specific technical competencies with cognitive, affective, and behavioral skills necessary for effective integration into organizational and social environments.

It contributes to:

- understanding human behavior in the context of teamwork and technological organizations;
- developing communication and professional relationship skills;
- self-knowledge, stress management, and performance optimization;
- forming an ethical and responsible attitude toward professional activity.

Date	Course lecturer	Instructor(s) for practical activities
25.09.2025	Assoc. Prof. Dr. Balgiu Beatrice Adriana	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