

Transilvania University of Brașov, Romania

Study program: Prophylaxis and Motor Recovery and Somato-functional through Physical Exercise

Faculty: **Physical Education and Mountain Sports**

Study period: **2 years (master)**

2025-2026

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Advanced notions of ergophysiology, by age groups	ME.CA.I.01.01	Romanian	5	1	-	1	-

Course description (Syllabus): Physiological aspects of state home warming and the second breathing; Status training, athletic form; Isometric and isotonic contractions particularities; Physiology of nerve and neuromuscular fatigue; The physiological basis of physical qualities. Physiology aspects of speed, endurance, strength and skill; Training at altitude, time zone changes and climatic conditions; Doping in athletes; Scale of contraindications sport.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Psychology of the ages and specific psychopathologies	ME.CA.I.01.02	Romanian	5	1	2	-	-

Course description (Syllabus): Defining psychology ages; Object and content of psychopathology; Young children and deficiencies in adaptive behavior; Pre-teen addiction and psychopathology at this stage; Adolescence and psychopathology addiction at this stage; Psychological peculiarities of young, adult and of the old; Organic disturbances to age III.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Theory of motor actuating learning	ME.AP.I.01.03	Romanian	5	2	1	-	-

Course description (Syllabus): General issues of learning (definition of "learning" types of learning, learning theories and mechanisms); school learning and its characteristics, objectives and learning outcomes, learning skills and capacities; Pedagogical models of learning theories; motor learning (definitions, characteristics, typology); General motor program; Memory and motor learning retention; Transfer in motor learning; Phases / stages of motor learning (interdisciplinary treatment in terms of physiology, psychology, theory of physical education and sports); current classifications of motor skills; perception and motor learning, motor learning and memory development, learning - saving motor in ontogenesis; Teaching - learning as an act of communication (information and communication, communication, communication through movement, the conditions of effective communication); Internal and external conditions of learning, learning motor motivations; Effective learning rules, distortions in the motor learning process; Evaluation of motor learning outcomes.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Techniques of kinetotherapy intervention in the school environment	ME.AP.I.01.04	Romanian	4	2	-	1	-

Course description (Syllabus): Theoretical aspects of prophylactic kinetotherapy; classifying the physical, global and segmentary deficiencies, means of preventing and correcting the physical deficiencies; Educating the correct attitude of the body means of tracking down the physical, global and segmentary deficiencies; The spine's physical development deficiencies: lordosis, kyphosis, kypholordosis, and scoliosis; Explaining the principles, objectives and

methods used in preventing and correcting the spine's physical deficiencies; The backs' physical development deficiencies: round back, rigid back, fallen shoulders; The ability to program and apply, in different professional plans, the specific contents of kineto-therapy and to exploit the formative and educative valences as well.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Management and marketing in promoting health through exercise	ME.SI.I.01.05	Romanian	5	2	1	-	-

Course description (Syllabus): The professional skills acquired are those through which the graduates of the course acquire the capacity to integrate the accumulated knowledge: the evolution of the management concept, organization and organizations in the management of sports activities, forms of social organizations of sports organizations, management of human resources management, management of financial resources management, management and analysis of the management of sports activities, the proper use of the means for the functioning of a sports organization.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Physical, mental and social health through motor activities	ME.SI.I.01.06	Romanian	5	1	2	-	-

Course description (Syllabus): The discipline Physical, Mental and Social Health through Motor Activities examines, from a scientific and academic perspective, the role of motor activities in optimizing physical health, supporting psychological balance, and facilitating the integration and development of social relationships.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Ethics and academic integrity 2	ME.SI.I.02.07	Romanian	5	1	-	-	-

Course description (Syllabus): General concepts regarding professional ethics and ethics. Students' academic rights and responsibilities. Intellectual property: copyright, patent, trademark, etc. Ethical conduct in research. Manufacture and falsification of research data. Acquisition of intellectual property rights. The importance of the original research in the elaboration of the dissertation work. Ethical and deontological responsibilities specific to the sports field.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Advanced notions of biomechanics and motion kinematics	ME.SI.I.02.08	Romanian	5	2	2	-	-

Course description (Syllabus): Conceptual delimitations: refer to functional anatomy and biomechanical content. The human body regarded as biomechanical system. General concepts of biomechanics applied to sports games.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Motor anthropology	ME.SI.I.02.09	Romanian	5	1	1	-	-

Course description (Syllabus): The object of motor anthropology; human ontogenesis; considerations of motor anthropology; Constitutional typology; the correlation between the constitutional type and sports performance; Methodology and technology of anthropological and genetic investigation; The human body seen as an anthropological, motor, biomechanical system; Anthropological and genetic determinations with significance in sports performance; Anthropological and genetic aspects of selection in directed motor activities; The anthropological and genetic determinism of motor skills in the direction of motor skills education.

Course title	Code	Language of instruction	No. of credits	Number of hours per week					practice
				course	seminar	laboratory	project		
Practice (clinical internship)	ME.SI.I.02.10	Romanian	5	-	-	-	-	-	4

Course description (Syllabus): Students carry out practical internships in neuromotor recovery centers. The following objectives will be pursued: Kinetic principles of recovery of the patient with neuromotor deficit, kinetic recovery of the hemorrhagic stroke, kinetic recovery of the ischemic stroke, the particularities of the centers of neuromotor recovery in Romania, the particularities of the patient with neuromotor deficit, from the third age categories.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Kinetoprophylaxis and kinetotherapy in metabolic diseases	ME.SI.I.02.11	Romanian	5	1	2	-	-

Course description (Syllabus): General concepts in nutritional and metabolic diseases; Energetic metabolism; Body weight and weight balance disorders; Obesity; Malnutrition; Diabetes; Hyperuricemia, gouty arthritis and uric stones; dyslipidemias, hepatic steatosis NASH; The Metabolic Syndrome; The role of the kinetotherapist of patient care with nutrition or metabolism disorders.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
The principles of a balanced lifestyle in sports	ME.CA.A.02.12.1	Romanian	5	2	-	2	-

Course description (Syllabus): Design and planning of the basic content of the field of sports nutrition with interdisciplinary orientation. Evaluation of the application of nutrition based on the level of effort and the quality of energy support according to specific objectives. Complex explanation of the influence of food energy support specific to performance sports. Selection and application of methods and nutritional means by age levels and areas of effort in performance sports training.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Physical therapy in obesity	ME.CA.A.02.12.2	Romanian	5	2	-	2	-

Course description (Syllabus): Obesity - introductory notions. Morpho-physiological properties regarding the structure of obesity. Contributing causes and triggers of obesity in children and adults. Types of obesity and their associated conditions. Evaluation of obese patients. Physiotherapy methods and procedures used to combat obesity. The preparation of kinetotherapeutic intervention programs for obesity in children and adults.

2nd Year 2026-2027

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Kinetoprophylaxis and locomotor kinetotherapy by age groups	ME.CA.I.03.01	Romanian	5	2	-	1	-

Course description (Syllabus): Principles and objectives of physical therapy in locomotor diseases of the shoulder, hand and elbow. Principles and objectives of physical therapy in locomotor diseases of the hip. Principles and objectives of physical therapy in locomotor disorders of the knee, leg.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Kinetotherapy in the recovery of cardiovascular pathology at different ages	ME.CA.I.03.02	Romanian	5	2	1	-	-

Course description (Syllabus): Indications and contraindications in cardiovascular recovery. Recovering patients with ischemic heart disease, myocardial infarction, heart failure, arrhythmias, etc.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Kinetotherapy of hemiparesis and hemiplegia	ME.CA.I.03.03	Romanian	5	1	-	1	-

Course description (Syllabus): Specific means and techniques in neurological disorders. Recovery from neurological diseases (peripheral neuropathies, facial paresis, upper limb paralysis, brachial plexus paralysis, ulnar plexus paralysis, radial plexus paralysis). Recovery of paralysis and hemiparesis of the lower limbs.

Course title	Code	Language of instruction	No. of credits	Number of hours per week				practice
				course	seminar	laboratory	project	
Practice (clinical internship)	ME.SI.I.03.04	Romanian	5	-	-	-	-	4

Course description (Syllabus): Means of evaluation and practical applications under the supervision of the physiotherapist responsible for the practical internship in the center.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Reflexology, toning and beautification	ME.AP.A.03.05	Romanian	5	1	-	2	-

Course description (Syllabus): Analysis of reflexogenic areas specific to devices, systems and body organs. Reflexogenic treatment regimens for various pathologies. Various modern muscle toning techniques.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Prophylaxis and sports recovery in the aquatic environment	ME.AP.A.03.06	Romanian	5	1	-	1	-

Course description (Syllabus): Water recovery and swimming is one of the main concrete means of recovery in sports. The course presents different recovery techniques practiced in the aquatic environment, for the most important sports branches practiced in Romania.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Research project on kinetoprophylaxis in the occupational environment	ME.AP.A.04.07	Romanian	5	1	-	-	2

Course description (Syllabus): The purpose of the course is to address the main thematic directions of occupational therapy, with emphasis on the elaboration of an individualized occupational therapy plan. Starting from the conceptual delimitations, the course deals with the functions of occupational therapy, its role in motor recovery / compensation, the specificity of occupational therapy activities for persons with motor impairment, techniques and procedures for occupational therapy activities.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Operational strategies for prevention and recovery of health through movement	ME.SI.A.04.08	Romanian	5	1	2	-	-

Course description (Syllabus): Policies and strategies in the European Union and Romania regarding the practice of sport. Community action programs in the field of health: HEPA Europe. Mortality and morbidity - in Romania and in the E.U. Health prevention strategies. Exercise prevention and health promotion programs. Exercise health recovery programs.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Research project on kinetoprophylaxis in the school environment	ME.AP.A.04.09	Romanian	5	1	-	-	1

Course description (Syllabus): The general model of a research project (defining the problem, constructing the hypothesis, developing the research model, measuring, collecting and analyzing data, generalizing); Searching for a research topic in the teaching methodology (search strategies, strategies for defining and defining topics); The topic of scientific research (types of research, research topics, thematic orientations in the research of human motility from a phylogenetic / ontogenetic perspective); Research project management (GANT diagram); Using references in drafting documents. Criteria for evaluating the project.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Digital technologies for assessing posture and motor skills	ME.AP.A.04.10	Romanian	5	1	-	-	1

Course description (Syllabus): Addresses in a scientific and academic manner, the principles, methods and advanced digital tools used for the objective and quantifiable analysis of posture and motor performance at the individual and population level.

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Elaboration of the dissertation, in kinetoprophylaxis	ME.AP.A.04.11	Romanian	5	-	-	-	4

Course description (Syllabus): Analyzing general research methods: Bibliographic method; Analyzing research methods and types; Analyzing aspects of modeling, model and original system; Analyzing aspects of the case study; Organize a brain-storming sessions; Presentation and analysis of models of observation forms; Analyzing experimental method (independent and dependent variable); The statistical indicators and their application in physical education and sport; Analyzing and drafting aspects of research support. The general model of a research project (defining the problem, constructing the hypothesis, developing the research model, measuring, collecting and analyzing data, generalizing); Searching for a research topic in the teaching methodology (search strategies, strategies for defining and defining topics).

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Research project on kinetoprophylaxis in metabolic diseases	ME.AP.A.04.12.1	Romanian	5	1	-	-	1

Course description (Syllabus): The general model of a research project (defining the problem, constructing the hypothesis, developing the research model, measuring, collecting and analyzing data, generalizing); Searching for a research topic in the teaching methodology (search strategies, strategies for defining and defining topics);

Course title	Code	Language of instruction	No. of credits	Number of hours per week			
				course	seminar	laboratory	project
Research project on kinetoprophylaxis in geriatrics	ME.AP.A.04.12.2	Romanian	5	1	-	-	1

Course description (Syllabus): The general model of a research project (defining the problem, constructing the hypothesis, developing the research model, measuring, collecting and analyzing data, generalizing); Searching for a research topic in the teaching methodology (search strategies, strategies for defining and defining topics);