SYLLABUS

1. Data about the program of study

1.1	Institution	The Technical University of Cluj-Napoca
1.2	Faculty	AUTOMOTIVE, MECHATRONICS AND MECHANICAL ENGINEERING
1.3	Department	Mechatronics and Machine Dynamics
1.4	Field of study	License
1.5	Cycle of study	Bachelor of Science
1.6	Program of study/Qualification	MECHANICAL ENGINEERING (IN ENGLISH)
1.7	Form of education	Full time

2. Data about the subject

2.1 Subject name	Physical Education and Sport I				Subject code	9,00
2.2 Course responsible/lecturer	*Conf.dr. Rusu Alina alina.rusu@mdm.utcluj.ro*					
2.3 Teacher in charge of seminars/labs/projects	*Conf.dr. Rusu Alina alina.rusu@mdm.utcluj.ro*					
2.4 Year of study	2	2.5 Semester	1	2.6 Assessment		Ex
2.7 Subject category	Formative category					DC
	Optional					DOB

3. Estimated total time

3.1 Number of hours per week	2	3.2 of which, course:	-	3.3 applications:	2
3.4 Total hours in the curriculum	28	3.5 of which, course:	-	3.6 applications:	28
Individual study					hours
Manual, lecture material and notes, bibliography					
Supplementary study in the library, online and in the field					
Preparation for seminars/laboratory works, homework, reports, portfolios, essays					
Tutoring					
Exams and tests					10
Other activities					12

3.7	Total hours of individual study	22
3.8	Total hours per semester	50
3.9	Number of credit points	2

4. Pre-requisites (where appropriate)

4.1	Curriculum	
4.2	Competence	Physical aptitude; necessary skills; knowledge, skills and abilities accumulated in grades I-XII

5. Requirements (where appropriate)

5.1	For the course	-

5.2	For the applications	Sport Hall, Fitness Hall and Bodybuilding Hall, B-ul Muncii 101-103, Politehnica Swimming Pool/ online using Microsoft Teams

6. Specific competences

Professional competences	Theoretical knowledge, (What to know)	- knowledge, skills and motor skills - means and methods for harmonious and balanced physical development - fair play in sport and social activity
	Achieved Skills: (What He Can Do)	The capacity and the habit of practicing physical activities for formative, compensator and recreational purposes: - formative, by maintaining health, harmonious physical development and body resistance, to combat sedentarism; - compensatory, to alleviate the stress created by professional obligations, to restore the body after physical or intellectual effort - Skills for gaining strength and physical strength - Organizing and leading a team -
	Skilled skills: (What tools he / she can handle)	- The applicability in everyday life and in the future professional practice of the knowledge, skills and abilities of bodily activities; - Improving mental attributes: imagination, anticipation, referral, timely and efficient action, responsible independence, altruism. - Organizing and leading a team
Cross competences	Identifying the objectives, the available resources, the conditions for their completion. Realization of projects under co-ordination, under conditions of deontological norms, as well as safety and health at work	

7. Expected learning outcomes

Knowledge	• The student has the knowledge to identify, formulate, demonstrate, and explain problems specific to the field of physical education. • The student explains and interprets general concepts, principles, and fundamental methods in the field of human motor skills, as well as the organization and management of activities specific to the field, in training, educational, competitive, therapeutic, and organizational contexts. • The student is familiar with the basic principles of physical education and sports. • The student understands the role of movement in maintaining health and preventing postural disorders. • The student is familiar with physical exercises and sports that contribute to harmonious development and the maintenance of physical fitness. • The student acquires knowledge of hygiene, recovery, and relaxation of the body after exercise. • The student understands the moral and cultural values associated with physical education and sports.
Skills	• The student is thoughtful, thorough, efficient, and responsible in their work; punctual; takes responsibility for the results of their professional and creative activities; possesses common sense; and solves problems with ease. • The student is able to receive and understand oral messages, cultivating positive character traits, moral qualities, and willpower that will facilitate rapid social and professional integration. • The student develops and refines basic motor skills (speed, strength, agility, endurance). • Students develop and refine motor skills specific to gymnastics (spatial orientation, jumping, flexibility, courage). • Students describe, explain, and demonstrate elements specific to physical education and sports. • Students apply programs for fitness maintenance, physical conditioning, recovery, and relaxation. • Students create and adapt physical exercises based on educational objectives and individual needs.
Responsibility and autonomy	• The student is able to apply interpersonal skills within a team, enhancing and refining their empathetic interpersonal communication abilities and taking on specific responsibilities in group activities to address and resolve individual and group conflicts, as well as to manage time effectively. • The student takes responsibility for maintaining their own health and physical condition. • The student adheres to safety, ethical, and fair-play standards in sports activities. • The student uses physical education to promote an active and healthy lifestyle. • The student contributes to the smooth conduct of group activities through cooperation and mutual support. • The student independently organizes their training and recovery programs. • The student takes the initiative in choosing appropriate exercises and sports activities. • The student maintains ergonomic positions and correct posture during physical and professional activities. • The student incorporates physical exercise into their personal routine to support long-term health.

8. Discipline objectives (as results from the *key competences gained*)

7.1	General objective	

7.2	Specific objectives	

9. Contents

9.1. Lecture (syllabus)		Teaching methods	Notes
1.			
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12.			
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14.			
Bibliography			

9.2. Applications/Seminars		Teaching methods	Notes
1.	General physical training regarding the development of general physical health maintenance and alleviate daily stress	Exemplification using	
2.	improving technical complexes previously acquired by application of tactical tasks		
3.	automate complex technical and tactical game conditions		
4.	teaching the regulation in order to organize leisure activities and practice		
5.	Implementing independent skills needed to practice physical activities		
6.	perfecting combinations , schematics, circuits in sports games		
7.	closing school situation by passing control problelor announced as graduation criteria		
8.			
9.			
10.			
11.			

12.			
13.			
14.			

Bibliography

1. Curs de Educaţie fizică – Litografiat UTC-N
2. Dezvoltare fizică generală pentru studenţi – UTC-N
3. Cultură fizică pentru tineret – UT.PRESS

10. Bridging course contents with the expectations of the representatives of the community, professional associations and employers in the field

Sports activity there in the curriculum of universities and faculties in the country and abroad. Content is consistent with the expectations of professional associates and employers epistemic community representative of the afferent program.

11. Evaluation

Activity type	11.1 Assessment criteria	11.2 Assessment methods	11.3 Weight in the final grade
Course			
Applications	Medical Excuse: Minimum 10 present to support the report.	The theme for the referral is chosen from the exposed topics in the first month of the semester. Presentation and support of the paper. .	100%
	At least 10 present to support control samples	Frequency at hours and giving control samples. At the trial tracks progress on initial testing	100%
10.4 Minimum standard of performance			

Date of filling in:		Title Surname Name	Signature
	Lecturer		
11.05.2026	Teachers in charge of application	Conf.Dr. Alina Rusu	

Approval from the Head of the Department coordinating the course, only if this is different from the department organizing the study program.	Head of Department Prof.Dr.Ing. Mircea Bara

Date of approval in the department MDM 28.05.2026	Head of department MDM Prof.dr.ing. MIRCEA BARA
Date of approval in the faculty ARMM 16.09.2026	Dean Prof.dr.ing. FILIP NICOLAE