SYLLABUS

1. Program Information

1.1 Higher education institution	Technical University of Cluj-Napoca
1.2 Faculty	Faculty of Automation and Computer Science
1.3 Department	Department of Automation
1.4 Field of study	Automation, Applied Informatics and Intelligent Systems
1.5 Cycle of studies	Bachelor
1.6 Study Programme/Qualification	Intelligent Automation Systems (dual, in English language)
1.7 Form of education	IF – full-time education
1.8 Course code	15.00

2. Course information

2.1 Course title				**Physical Education 1**		
2.2 Course lecturer				-		
2.3 Seminar / Laboratory / Project Lecturer				*Lect.dr. Marius Adrian SUCIU - adrian.suciu@mdm.utcluj.ro*		
2.4 Year of study	1	2.5 Semester	1	2.6 Type of assessment		V
2.7 Course status	Formative category *(DF, DS, DC)*					DC
	Optionality *(DOB, DOP, DFA)*					DOB

3.Total estimated time

3.1 Number of hours per week	2	of which:	HEI	Lecture	0	Seminar	1	Laboratory	0	Project	0
			CO		0		0		0		0
3.2 Number of hours per semester	28	of which:	HEI	Lecture	0	Seminar	28	Laboratory	0	Project	0
			CO		0		0		0		0

3.3 Distribution of time allocation (hours per semester) for:	HEI	CO
(a) Study based on textbook, course support, bibliography, and notes	5	-
(b) Additional documentation in library, specialized electronic platforms, and fieldwork	-	-
(c) Preparation of seminars/laboratories, assignments, papers, portfolios and essays	12	-
(d) Tutoring	-	-
(e) Examinations	5	-
(f) Other activities:	-	-
3.4 Total individual study hours (sum (3.3(a)... 3.3(f)))	22	-
3.5 Total hours per semester (3.2+3.4)	50	-
3.6 Number of credits per semester	2	-

(HEI = Higher Education Institution, CO = Company)

4. Prerequisites (where applicable)

4.1 Curriculum Prerequisites	-
4.2 Competency Prerequisites	• Physical aptitude; necessary skills; knowledge, skills and abllitles accumulated in grades I-XII

5. Conditions (where applicable)

5.1. Course Organization Conditions	-
5.2. Seminar / Laboratory / Project organization conditions	• Sport Hall, Fitness Hall and Bodybuilding Hall, B-ul Muncii 101-103, Politehnica Swimming Pool

6. Specific Competencies Acquired

Professional Competencies	-
Transversal Competencies	• TC04 Work in teams

7. Learning outcomes

Knowledge	• Demonstrates an understanding of fundamental theories and concepts related to physical fitness, health promotion, and human movement. • Explains the physiological, psychological, and social benefits of regular physical activity. • Identifies rules, principles, and strategies underlying various sports, exercise modalities, and physical training programs.
Skills	• Applies appropriate techniques and motor skills in physical activities, exercise routines, and sports contexts. • Integrates coordination, endurance, flexibility, strength, and agility into structured physical tasks. • Employs teamwork, communication, and problem-solving skills within collaborative sporting or training environments
Responsibility and autonomy	• Assumes responsibility for maintaining and improving personal health and physical performance. • Exercises self-discipline, respect, and ethical conduct in physical education and sporting contexts. • Demonstrates the capacity for autonomous learning by designing and implementing individualized fitness programs. • Reflects critically on personal progress and adapts strategies for continuous improvement in physical activity and health.

8. Course Objectives

8.1 General objective of the course	• Promote the development of physical fitness, motor skills, and healthy lifestyle habits through systematic physical education activities, while fostering teamwork, discipline, and lifelong commitment to physical activity and well-being.
8.2 Specific objectives	• To develop fundamental motor abilities (strength, endurance, flexibility, speed, coordination). • To acquire and apply technical and tactical skills specific to various sports and physical activities. • To enhance knowledge of rules, strategies, and fair-play principles in individual and team sports. • To improve functional capacity of the body through exercises aimed at cardiovascular, respiratory, and musculoskeletal efficiency. • To cultivate self-discipline, perseverance, and responsibility in practicing physical activity. • To promote recreational and compensatory physical activity as a means of reducing stress and preventing postural deficiencies. • To foster teamwork, cooperation, and communication skills in group physical activities.

9. Contents

9.1 Lectures	No. of hours	Teaching methods	Obs.
N/A			
Bibliography			

9.2 Seminar / laboratory / project	Hours HEI	Hours CO	Teaching methods	Obs.
1. Informing students about the requirements of the discipline. Testing the students' physical capacity level. Readapting students to physical effort.	2	-	Exemplification, Interactive	-
2. Exercises, relays, and ball-handling games for accommodation. Mastering technical elements without the ball. Water adaptation. Learning the correct grip. Fundamental positions, positioning and movement on the field, rotation. Maximizing existing bio-motor potential.	2	-		
3. Dribbling; the traveling rule (rule of steps). Learning to hit the ball with the tip and the side of the foot. Getting used to the horizontal position in water. Learning the basic position. Passing the ball overhead with two hands. Adapting sports activities for recreational purposes – improving muscle tone in legs, glutes, arms, and back.	2	-		
4. Stopping. Pivoting. Shooting at the basket from a stationary position and from dribbling. Learning to hit the ball with the wrist (inside, full, outside). Learning breathing in water. Learning specific movements. Catching a thrown ball (like a serve). Complex exercises for achieving a solid balance regarding energy consumption and oxygen intake in the body.	2	-		
5. Fundamental position. Movements. Learning to hit the ball with the knee and heel. Learning floating in water. Learning the middle game with forehand. Learning the overhead serve from the front (distance 4–5 m). Adapting sports activities for recreational purposes – improving muscle tone in legs, glutes, arms, and back.	2	-		
6. Changing direction with and without the ball. Learning to hit the ball with the head. Learning gliding in water. Learning the middle game with simple backhand. Game without the ball with simulation of learned elements. Complex exercises for achieving a solid balance regarding energy consumption and oxygen intake in the body.	2			
7. Complex technical structures: dribbling, stopping, pivoting, passing. Learning ball-handling techniques. Learning floating and gliding on the back. Learning the middle game with cut forehand. Catching the ball from a high overhead serve. Tip stretching exercises – active or passive, performed individually or in pairs, executed on the floor or with partner support.	2	-		
8. 1x1 relationship (marking/spacing). Learning ball receptions (cushioning, rebounds, counter-rolls). Learning leg movements in the breaststroke style. Learning the middle game with the reverse cut. Organizing three shots, ball recovery. Tip stretching exercises – active or passive, performed individually or in pairs, executed on the floor or with partner support.	2	-		

9. Shooting at the basket while jumping. Learning deceptive movements. Learning leg movements synchronized with breathing. Learning the middle game with semi-jump forehand. High attack hit from zones 3 and 4.Yoga exercises, stretching, self-massage.	2	-		
10. Themed games: improving passing. Learning how to put the ball back into play. Learning arm movements. Learning the middle game from semi-jump with backhand. Attack hit directed from approach in zone. Rhythmic breathing exercises performed in parallel with movements.	2	-		
11. 1x1 relationship (overcoming the opponent). Learning to dispossess opponents of the ball. Coordination of arm and leg movements. Learning the simple forehand serve. 5x6 game with simplified rules. Maintaining the principle of elongation through stretching.	2	-		
12. Complex technical structures: catching, dribbling, stopping. Learning the goalkeeper's technical procedures. Swimming crawl for 25–50 meters. Learning the simple backhand serve. Learning the attack hit from zone 2. Continuous "non-stop" work without dead times, with correct breathing for optimizing body endurance.	2	-		
13. Dribbling with different techniques: change of direction, passing. Learning practical maneuvers for free throws. Learning the start and turning in crawl swimming. Learning the simple serve reception. Attack hits from zones 2 and 3 (high, medium, forward). Step exercises – "aerobic steps."	2	-		
14. Protecting the ball. Learning marking, penetration, and overcoming. Learning leg movements in the breaststroke style. Learning the forehand control in line. Catching the ball from below with two hands. Special prophylactic exercises for forming correct posture, as well as for combating various vicious attitudes of the spine: kyphosis, scoliosis, lordosis, as well as spondylosis and varicose veins — all in incipient forms.	2	-		

Bibliography:

1. Curs de Educație fizică — Litografiat UTC-N
2. Dezvoltare fizică generală pentru studenți — UTC-N
3. Cultură fizică pentru tineret — UT.PRESS

10. Correlation of course content with the expectations of the epistemic community representatives, professional associations, and major employers in the field related to the program

Sports activities are included in the curricula of universities and faculties both in the country and abroad. The content is aligned with the expectations of professional associations, employers, and representatives of the academic and professional community relevant to the program.

11. Evaluation

Activity Type	Evaluation criteria	Evaluation methods	Weight in final grade
11.1 Lecture	-	-	-

11.2 Seminar /Project	Medical exemption: Minimum 10 attendances and defense of a report.	The topic for the report is established together with the teaching staff during class.	100%
	Minimum 10 attendances and defense of the physical test.	Presentation of the report. Control test, following each student's progress. Control test: Applied practical route within a certain time interval.	100%
11.3 Minimum Performance Standard			
The final grade will be calculated only if each component of the final evaluation is completed.			

Date of completion: 4.07.2025	Lecturers		Signature
	Course		
	Applications	*Lect.dr. Marius Adrian SUCIU*	

Date of approval by the Department of Automation Council 24.11.2025 Date of approval by the Faculty of Automation and Computer Science Council 28.11.2025	Director of the Department of Automation Prof.dr.ing. Honoriu VĂLEAN Dean Prof.dr.ing. Vlad MUREȘAN