Kielce University of Technology

FACULTY OF MECHATRONICS AND MECHANICAL ENGINEERING

Annex 9 to the Rector's Ordinance No. 35/19 of 12 June 2019

COURSE SPECIFICATION

Course code	M#1-S1-ME-412
Course title in Polish	Wychowanie fizyczne
Course title in English	Physical Education
Valid from (academic year)	2019/2020

GENERAL INFORMATION

Programme of study	MECHANICAL ENGINEERING
Level of qualification	first-cycle
Type of education	academic
Mode of study	full-time
Specialism	all
Department responsible	University Sports Centre
Course leader	dr Stanisław Hojda
Approved by	

COURSE OVERVIEW

Course type	basic
Course status	compulsory
Language of instruction	Polish
Semester of delivery	semester 4
Pre-requisites	None
Examination required (YES/NO)	NO
ECTS value	0

Mode of instruction	lecture	class	laboratory	project	seminar
No. of hours per semester		30			

LEARNING OUTCOMES

Category of outcome	Outcom e code	Course learning outcomes	Corresponding programme outcome code			
Knowledge	W01	On completion of this course, students will have knowledge of the rules and regulations of the most popular team and individual sports.				
	W02	They will have a basic knowledge of physical culture, physical activity, nutrition and health.				
	U01	U01 They will have fundamental technical skills to participate in selected sport activities; they will be able to pass a physical fitness test such as the Pilicz or Cooper test.				
Skills	U02	They will be able to choose the right physical activity to improve their fitness, depending on the goal (cardiovascular or respiratory health, muscle strengthening).				
Competence	K01	They will be aware of the need to develop their knowledge and skills related to physical culture. They will observe the rules of fair play in sport and everyday life situations.				
Competence	K02	They will promote the social and cultural significance of sports. They will identify and develop their individual preferences in physical culture and sports.				

Type of instruction*	Topics covered
motraotion	1. Football/Soccer
	Football fitness test.
	Getting familiar with the ball.
	Ball control drills: passing and receiving.
	Ball control drills: turning and dribbling.
	Ball control drills: shooting from different positions.
	Basic football skills: individual defence.
	Simplified football situations: man-to-man and zone marking.
	Complex technical and tactical demands: shooting.
	Perfecting special skills through games and play activities.
	Small-sided and conditioned games in football training.
	Practising football technical and tactical skills.
	Football skills test.
	2. Basketball
-1	Learning the rules. Learning to move around the court.
class	Learning to pass and catch the ball. Perfecting basketball skills: moving around the court.
	Learning to dribble. Perfecting basketball skills: ball passing and catching.
	Learning to play defence. Perfecting basketball skills: dribbling.
	Learning a jump shot.
	Learning to use fake moves. Perfecting basketball skills: jump shots.
	Learning to shoot a layup. Perfecting the basketball skills through games and fun activities.
	Learning to play one-on-one. Perfecting basketball skills: layups.
	Learning to play one-on-one. Perfecting basketball skills, layups. Learning to use screens, picks and off ball offence. Conditioned game.
	Learning to use screens, picks and on ball offence. Conditioned game. Learning to play zone defence. Perfecting basketball skills: one-on-one play.
	Learning to play 2011e defence. Perfecting basketball skills, offe-on-one play. Learning to play offence (pick&roll and backdoor). Practising jump shots.
	Learning to shoot one handed. Practising offence.
	Learning to play man-to-man defence. Playing a proper basketball game.
	Basketball skills test (obstacle course).
	Three-on-three basketball tournament.

3. Volleyball

Physical fitness tests and check-ups.

Volleyball stance and movement on the court.

Basic volleyball skills.

Volleyball offence skills.

Volleyball defence skills.

Individual offensive and defensive tactics.

Team offensive tactics (teamwork for different offensive strategies).

Team defensive tactics (teamwork for different defensive strategies).

Small-sided and conditioned games; proper game.

4. Strength sports

Gym health and safety.

Training guide for beginners.

Basic terminology: tempo, sets, reps, loads and rest.

Female and male bodybuilding; Joe Weider's bodybuilding system.

Chest workout.

Back and arms workout.

Legs workout.

Strength training for other sports, e.g. rowing machine training.

Isolation training.

Bodybuilding methods.

Priority training.

Split system training.

Workout for super strength and supersize.

Creating personalised workout plans.

Theoretical and practical tests.

Nordic walking

Warm-up exercises with and without poles.

Nordic walking poles and accessories; clothing and footwear.

Nordic walking technique: arm movements while standing and in motion.

Individual and group walks.

Walking over different distances; monitoring exercise intensity (heart rate and exercise time).

6. Handball

Games for developing handball skills.

Getting familiar with the ball.

Handball drills: passing and catching (one hand half-upper pass, high catch, low catch, from the ground).

Handball rules and regulations.

Handball drills: shooting (jump shot, leaning back shot, shot in place).

Individual offensive skills.

Dribbling.

Body feints with and without the ball. Feinting a pass, feinting a shot.

Skills to organize handball tournaments and to act as a referee. Match report.

Goalkeeping technique.

Individual defensive skills: sidestepping, side-to-side jumping.

Basic offensive systems: explanation and demonstration.

Handball tactics: quick attack (2 vs 1, 3 vs 2).

Team attack tactics: attack formations and positions.

Positional tactics.

7. Table tennis

Different types of grip. choosing the grip, depending on individual preferences.

Mastering the ready position.

Mastering and improving offensive strokes.

Mastering and improving defensive strokes.

Forehand and backhand topspin shots. Cross-court and down-the-line attack.

Precision shots. Long topspin rallies.

Forehand and backhand defensive lob shots in the second and third phases of the game.

Mastering and improving table tennis skills: indirect shots.

Mastering and improving table tennis skills: serve and return.

8. Fitness

Basics of fitness and recreation.

Basics of the anatomy and physiology of fitness.

Pilates

Significance of fitness, wellness and aerobics. A brief historical outline.

Classification of physical fitness. Fitness components, types of exercise.

Counting music in fitness exercises: beats, bars, phrases and sets.

Verbal and visual communication used for instruction.

Aerobics vs step aerobics. Basic aerobic steps.

Aerobics: basic step patterns and combinations.

In-between moves. Step sequences.

Teaching choreography: Levels of choreography. Use of space. Regular attendance. Symmetrical and asymmetrical training. Linear progress. Pyramid workout. Exercise substitution. Isolation exercises. Common exercises. Combining different methods.

Creating and writing down choreography.

Exercise physiology basics for fitness training.

Functional anatomy for fitness training: muscle attachments and muscle functions.

Workouts by muscle groups.

Muscle strengthening exercises: lifting weights and using other gym equipment.

Common basic step mistakes in the and how to fix them.

Aerobics basic steps and muscle strengthening exercises: common exercise mistakes and how to fix them.

Basic stretching exercises: muscle groups.

Muscle stretching exercises: common exercise mistakes and how to fix them.

Fitness workout plan and test.

9. Badminton

Badminton techniques. Coaching methods.

Learning different types of grip in badminton. Getting familiar with a shuttlecock and a racket

Correct ready position in badminton.

Mastering the basic badminton shots: forehand clear, backhand clear and basic footwork.

Mastering the serve. Types of serve and serving tactics.

Mastering the forehand drop.

Mastering the forehand and backhand lob.

Improving badminton playing skills through drills and small-sided and conditioned games.

Badminton games to develop running, throwing and jumping skills. Badminton singles and doubles tournaments.

10. Athletics

RUNNING DRILLS

- A, B and C skip
- interval running
- sprint tests over a range of distances (20, 40, 60, 100 m)
- baton passing drills

JUMPING DRILLS

- skipping in place and in running
- single and double leg jumping
- jumping over obstacles (benches, hurdles, boxes)
- vertical jump incorporating different parts of the body
- standing and running long jump

THROWING DRILLS

- three types of ball throws (handball, volleyball and basketball throws)
- medicine ball throws for track and field events
- shot put drills (medicine ball shot put throw)

FLEXIBILITY DRILLS

- forward and backward rolls on a mat
- stretching drills
- individual and pair work using hurdles, mats and benches
- basic hurdle drills (forwards and sideways jumps over hurdles), attacking a hurdle, approaching hurdles on curves, 1, 3, 5 and 7 stride run-up)

PHYSICAL FITNESS DRILLS

- cross-country running (different pathway configurations)
- running at different speeds (first and second speed ranges))
- fitness test (e.g. Cooper test 12 min)

11. Swimming

Familiarization with a new environment; getting comfortable in the water.

Learning to exhale underwater.

Getting used to floating.

Backstroke swimming technique: legs.

Backstroke swimming technique: arms.

Backstroke swimming technique: arms and legs combined, correct breathing

Learning how to start backstroke from the water

Learning how to do a backstroke flipturn.

Front crawl swimming technique: correct breathing (breathing on the right, on the left, on both sides).

Front crawl swimming technique: arms.

Front crawl swimming technique: arms and legs combined, correct breathing.

Perfecting backstroke.

Perfecting front crawl.

Learning how to dive off a staring block for front crawl.

Learning how to do a front crawl flipturn.

Learning how to swim deep underwater (3.5 m); duck dive

Perfecting front crawl and backstroke.

Breaststroke swimming technique: legs.

Breaststroke swimming technique: arms.

Breaststroke swimming technique: arms and legs combined, correct breathing.

Learning how to do a breaststroke turn.

Butterfly swimming technique: legs.

Butterfly swimming technique: arms.

Butterfly swimming technique: arms and legs combined.

Rescue swimming: water entry.

Rescue swimming: front crawl.

Water emergency: prevention and safety measures.

First aid in the water and towing methods.

12. Skiing

1. Basic movements on the snow.

Getting to know the equipment and the surroundings.

Ski balance exercises.

Moving on flat terrain.

Learning the proper ski stance.

Moving uphill.

Gliding down the hill. Learning the step turn.

Standing up after falling.

Herringbone.

Snowplough.

Plough turns

- 2.Learning to ski parallel turns.
- a) Transition from snowplough to parallel skiing.
- Snowplough turns.
- Stem christie turns.
- Pole planting.
- b) Learning to control the speed and stop.
- Skidding.
- Uphill christies.
- Stop christies.

ASSESSMENT METHODS

Outcome	Methods of assessment (Mark with an X where applicable)						
code	Oral examination	Written examination	Test	Project	Report	Other	
W01						Х	
W02						Х	
U01						Х	
U02						Х	
K01						Х	
K02						Х	

ASSESSMENT TYPE AND CRITERIA

Mode of instruction*	Assessment type	Assessment criteria
class	non-examination assessment	A pass mark is required for each practical test in the sports undertaken during the semester.

^{*)} Please delete rows in the table above that are not applicable.

OVERALL STUDENT WORKLOAD

	ECTS weighting						
	Activity type	Student workload Unit					Unit
	Cohodulad contact hours	L	С	Lab	Р	S	٦
1.	1. Scheduled contact hours		30				h
2.	Other contact hours (office hours, examination)						h
3.	Total number of contact hours	30		h			
4.	Number of ECTS credits for contact hours	0,0		ECTS			
5.	Number of independent study hours	0			h		

^{*)} Please delete rows in the table above that are not applicable.

6.	Number of ECTS credits for independent study hours	0,0	ECTS
7.	Number of practical hours	30	h
8.	Number of ECTS credits for practical hours	0,0	ECTS
9.	Total study time	30	h
10.	ECTS credits for the course 1 ECTS credit = 25-30 hours of study time	0	ECTS