Nutrition in sports
Żywienie w sporcie

1. IMPRINT

Academic Year	2025/2026
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline	Medical sciences
Study Profile	General academic
Level of studies	Uniform MSc
Form of studies	Full time studies
Type of module / course	Non-compulsory
Form of verification of learning outcomes	Completion
Educational Unit / Educational Units	Department of Social Medicine and Public Health Medical University of Warsaw Medical Simulation Center Banacha Campus 3a Pawińskiego St., 02-106 Warsaw E-mail: msizp@wum.edu.pl
Head of Educational Unit / Heads of Educational Units	Prof. Aneta Nitsch – Osuch, MD, PhD
Course coordinator	Aleksandra Kozłowska, PhD, e-mail: aleksandra.kozlowska@wum.edu.pl
Person responsible for syllabus	Aleksandra Kozłowska, PhD, e-mail: aleksandra.kozlowska@wum.edu.pl
Teachers	Anna Jagielska, MD, PhD Aleksandra Kozłowska, MSc, PhD

2. BASIC INFORMATION

Year and semester of studies	I-II year, summer, and winter semester	**Number of ECTS credits**	2.00

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)		
Seminar (S)	30 (e-learning)	1.20
Classes (C)		
e-learning (e-L)		
Practical classes (PC)		
Work placement (WP)		
Unassisted student's work		
Preparation for classes and completions	20	0.80

3. COURSE OBJECTIVES

O1	The principles of nutrition in physical activity.
O2	The relationship between nutrition and physical performance of the body.
O3	Basics of dietary advice for people practicing sports.

4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING

Code and number of the effect of learning in accordance with standards of learning	**Effects in the field of:** *(in accordance with appendix to the Regulation of Minister of Science and Higher education from 29th of September 2023)*
Knowledge – Graduate* knows and understands:	
B.W19.	basics of excitation and conduction in the nervous system and higher nervous functions, as well as striated and smooth muscle physiology;
B.W20.	the function and regulation mechanisms of all organs and systems of the human body and the relationship between them;
C.W39.	consequences of vitamin and mineral deficiencies and excesses;
D.W19.	the fundamentals of evidence-based medicine
G.W1.	methods for assessing the health of individuals and populations, measures and principles of monitoring the health of populations, systems of classifying diseases and medical procedures;
G.W2.	determinants of diseases, methods of identifying and examining disease risk factors, advantages and disadvantages of epidemiological research and principles of cause-and-effect inference in medicine;

Skills– Graduate* is able to:	
B.U7.	perform simple functional tests assessing the functioning of the human body as a stable control system (stress and exercise tests) and interpret numerical data on basic physiological variables;
D.U1.	observe ethical models in professional activities, including planning and carrying out the therapeutic process in accordance with ethical values and the idea of humanism in medicine;
E.U21.	provide health education to the patient, including nutritional education tailored to individual needs;
G.U2.	collect information on the conditions and presence of risk factors for infectious and noncommunicable diseases and plan preventive activities at various levels of prevention;

** In appendix to the Regulation of Minister of Science and Higher education from 29th of September 2023 „graduate", not student is mentioned.*

5. ADDITIONAL EFFECTS OF LEARNING *(non-compulsory)*

Number of effect of learning	**Effects in the fields of:**
Knowledge – Graduate knows and understands:	
C.W40.	the causes and consequences of poor nutrition, including prolonged under- and over-eating and the use of unbalanced diets, and digestive and absorption disorders;
Skills– Graduate is able to:	
B.U6.	predict the direction of biochemical processes in relation to the energy status of cells;
D.U4.	demonstrate responsibility for improving their own skills and transferring knowledge to others;
D.U5.	critically analyse medical literature, including literature in in English, and draw conclusions;
Social Competencies – Graduate is ready for:	
SC1	
SC2	

6. CLASSES

Form of class	**Class contents**	**Effects of Learning**
(e-L) seminar 1	Adaptation of the human body to exercise – Anna Jagielska, MD, PhD	B.W19.,BW20, C.W39. D.W19., G.W1., G.W2., B.U7., B.U6., D.U1., D.U4., D.U5., E.U21., G.U2., C.W40., B.U6.
(e-L) seminar 2	Types of training – Anna Jagielska, MD, PhD	B.W19.,BW20, C.W39. D.W19., G.W1., G.W2., B.U7., B.U6., D.U1., D.U4., D.U5., E.U21., G.U2., C.W40., B.U6.
(e-L) seminar 3	Sources of energy in physical activity - Aleksandra Kozłowska, MSc, PhD	B.W19.,BW20, C.W39. D.W19., G.W1., G.W2., B.U7., B.U6.,

		D.U1., D.U4., D.U5., E.U21., G.U2., C.W40., B.U6.
(e-L) seminar 4	Diet, liquids, and supplements in sports - Aleksandra Kozłowska, MSc, PhD	B.W19.,BW20, C.W39. D.W19., G.W1., G.W2., B.U7., B.U6., D.U1., D.U4., D.U5., E.U21., G.U2., C.W40., B.U6.
(e-L) seminar 5	Environment and physical capacity – Anna Jagielska, MD, PhD	B.W19.,BW20, C.W39. D.W19., G.W1., G.W2., B.U7., B.U6., D.U1., D.U4., D.U5., E.U21., G.U2., C.W40., B.U6.
(e-L) seminar 6	The importance of physical activity at different stages of human life – Anna Jagielska, MD, PhD	B.W19.,BW20, C.W39. D.W19., G.W1., G.W2., B.U7., B.U6., D.U1., D.U4., D.U5., E.U21., G.U2., C.W40., B.U6.
(e-L) seminar 7	Nutrition during the competition - Aleksandra Kozłowska, MSc, PhD	B.W19.,BW20, C.W39. D.W19., G.W1., G.W2., B.U7., B.U6., D.U1., D.U4., D.U5., E.U21., G.U2., C.W40., B.U6.
(e-L) seminar 8	Individual evaluation of the energy balance – Anna Jagielska, MD, PhD, Aleksandra Kozłowska, MSc, PhD	B.W19.,BW20, C.W39. D.W19., G.W1., G.W2., B.U7., B.U6., D.U1., D.U4., D.U5., E.U21., G.U2., C.W40., B.U6.
(e-L) seminar 9	Individual assessment of diet– Anna Jagielska, MD, PhD, Aleksandra Kozłowska, MSc, PhD	B.W19.,BW20, C.W39. D.W19., G.W1., G.W2., B.U7., B.U6., D.U1., D.U4., D.U5., E.U21., G.U2., C.W40., B.U6.
(e-L) seminar 10	Individual evaluation of nutritional status– Anna Jagielska, MD, PhD, Aleksandra Kozłowska, MSc, PhD	B.W19.,BW20, C.W39. D.W19., G.W1., G.W2., B.U7., B.U6., D.U1., D.U4., D.U5., E.U21., G.U2., C.W40., B.U6.

7. LITERATURE

Obligatory

1. Medicina Sportiva Practica (www. medicinasportiva.pl)
2. Journal of International Society of Sports and Nurtition
3. Exercise physiology. Energy, Nutrition and Human Performance. McArdle WD i wsp. LWW wyd. 6.

Supplementary

1. Modern nutrition in health and disease. pod. red. ME Skills i wsp., LWW, 10th edition (wybrane rozdziały)
2. Diet, physical activity and cardiovascular disease prevention in Europe. European Heart Network. http://www.sante.public.lu/publications/maladies-traitements/accident-vasculaire-cerebral/diet-physical-activity-cardiovascular-disease-prevention-europe/diet-physical-activity-cardiovascular-disease-prevention-europe.pdf

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
B.W19.,BW20, C.W39. D.W19., G.W1., G.W2., B.U7.,	1. Written reports 2. Test (MCQ)	1. credit 2. >60% of correct answers

B.U6., D.U1., D.U4., D.U5., E.U21., G.U2., C.W40., B.U6.		

9. ADDITIONAL INFORMATION

Link to e-learning will be sent by mail to MUW student email account ONLY. Access to e-learning will be available from 2nd till 15th week of semester.
Students are obligatory to check MUW student email account as all information are sent only by formal MUW mails.

ATTENTION

The final 10 minutes of the last class of the block/semester/year should be allotted for students to fill out the Survey of Evaluation of Classes and Academic Teachers