



Nutrition in Sports

Żywnienie w sporcie

1. IMPRINT

Academic Year	2026/2027
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	Obligatory (elective course)
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
Person responsible for syllabus	Aleksandra Kozłowska, MD, PhD, aleksandra.kozlowska@wum.edu.pl
Teachers	Anna Jagielska, MD, PhD Aleksandra Kozłowska, MSc, PhD

2. BASIC INFORMATION

Year and semester of studies	IV-V year, summer, and winter semester	Number of ECTS credits	2.00
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FORMS OF CLASSES	Number of hours	ECTS credits calculation
Contacting hours with academic teacher		
Lecture (L)		
Seminar (S)	30 (e-learning)	1.20
Discussions (D)		
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: <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>
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Knowledge – Graduate* knows and understands:

B.W.20	action potential, synaptic transmission and maintenance of nerve function, striated and smooth muscles function and blood function;
B.W.21	function and regulatory mechanisms of all organs and systems in human body, including circulatory system, respiratory system, alimentary system, urinary system and skin and understands the relationships between them;
C.W.48	consequences of deficiency or excess of vitamins or minerals in human organism;
C.W.50	consequences of improper nutrition, including long-term starvation, too square meals and unbalanced diet and disorders of digestion and absorption of digestion products;
D.W.23	foundations of evidence based medicine.

G.W.1	health assessment methods of an individual and a population, disease and medical procedure classification;
G.W.2	ways of identification and examination of risk factors, advantages and disadvantages of different epidemiological study methods and cause-effect relation measures;

Skills– Graduate* is able to:

B.U.7	perform simple diagnostic tests which are able to assess human body as a constant regulatory system (stress and exercise test, etc.); interpret numerical data concerning the basic physiological variables;
B.U.9	use the basic measurement equipment and assess the precision of the measurements;
D.U.1	include patient's subjective needs and expectations resulting from the socio-cultural background in the entire therapeutic process;
D.U.2	perceive signs of unhealthy and self-destructive behaviours and react properly to such behaviours;
E.U.16	plan diagnostic, therapeutic and preventive treatment;
G.U.2	collect information about the presence of the factors of risk of infectious and chronic diseases and plan preventive actions at various levels of prevention;

* In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate”, not student is mentioned.

5. ADDITIONAL EFFECTS OF LEARNING

Number of effect of learning	Effects in the field of:
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Knowledge – Graduate knows and understands:

K1	Knows the consequences of improper nutrition, including prolonged starvation, overeating and unbalanced diet.
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Skills– Graduate is able to:

S1	Provides direction of biochemical processes, depending on the cell energy status.
S2	Collect information on the presence of risk factors for communicable and noncommunicable disease and plan prevention plans at different levels.
S3	Performs simple tests and measurements of the health status, interprets the outcomes of the basic physiological variables.
S4	Recognizes self deficits and educational needs, plans its own activity.
S5	Critically examines the medical references, including local and foreign literature, draws conclusions based on the available literature
S6	Trying to avoid making a medical error in their own activities.

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.W.20-21, C.W.48, C.W.50, , D.W.23, G.W.1-2, B.U. 7, B.U.9, D.U.1-2, G.U.2, K1, S1-8
(e-L) seminar 2	Types of training – Anna Jagielska, MD, PhD	B.W.20-21. C.W.48, C.W.50, D.W.23, G.W.1-2, B.U.7,B.U.9, D.U.1-2, G.U.2, K1, S1-8
(e-L) seminar 3	Sources of energy in physical activity - Aleksandra Kozłowska, MSc, PhD	B.W.20-21. C.W.48, C.W.50, D.W.23, G.W.1-2, D.U.1-2, E.U.16, G.U.2, K1, S1-8
(e-L) seminar 4	Diet, liquids, and supplements in sports - Aleksandra Kozłowska, MSc, PhD	B.W.20-21. C.W.48, C.W.50, D.W.23, G.W.1-2, D.U.1-2, E.U.16, G.U.2, K1, S1-8
(e-L) seminar 5	Environment and physical capacity – Anna Jagielska, MD, PhD	B.W.20-21. C.W.48, C.W.50, D.W.23, G.W.1-2, D.U.1-2, E.U.16, G.U.2, K1, S1-8
(e-L) seminar 6	The importance of physical activity at different stages of human life – Anna Jagielska, MD, PhD	B.W.20-21. C.W.48, C.W.50, D.W.23, G.W.1-2, B.U.9, D.U.1-2, E.U.16, G.U.2, K1, S1-8
(e-L) seminar 7	Nutrition during the competition - Aleksandra Kozłowska, MSc, PhD	B.W.20-21. C.W.48, C.W.50, D.W.23, G.W.1-2, D.U.1-2, , G.U.2, K1, S1-8
(e-L) seminar 8	Individual evaluation of the energy balance – Anna Jagielska, MD, PhD, Aleksandra Kozłowska, MSc, PhD	B.W.20-21. C.W.48, C.W.50, D.W.23, G.W.1-2, B.U.7 B.U.9, D.U.1-2, G.U.2, K1, S1-8
(e-L) seminar 9	Individual assessment of diet– Anna Jagielska, MD, PhD, Aleksandra Kozłowska, MSc, PhD	B.W.20-21. C.W.48, C.W.50, D.W.23, G.W.1-2, B.U.7 B.U.9, D.U.1-2, G.U.2, K1, S1-8
(e-L) seminar 10	Individual evaluation of nutritional status– Anna Jagielska, MD, PhD, Aleksandra Kozłowska, MSc, PhD	D.W.23, G.W.1-2, B.U.7 B.U.9, D.U.1-2, E.U.16, G.U.2, K1, S1-8

7. LITERATURE
Obligatory
1. Medicina Sportiva Practica (www. medicinasportiva.pl) 2. Journal of International Society of Sports and Nutrition 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.W.20-21, C.W.48, C.W.50, D.W.23, G.W.1-2, B.U.7, B.U.9, D.U.1-2, E.U.16, G.U.2, K1, S1-8	1. Written reports 2. Test (MCQ)	1. credit 2. >60% of correct answers
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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.

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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