



MODULE / SYLLABUS

EDUCATION CYCLE 2024-2027

Module/subject name:	PHYSIOLOGY		
Direction:	NURSING		
Level of study*:	1st degree (bachelor's degree) II degree (master's degree)		
Education profile:	practical		
Type of studies*:	stationary/ part-time		
Type of classes*:	mandatory X complementary <input type="checkbox"/> optional <input type="checkbox"/>		
Year and semester of study*:	Year of studies*: IX II <input type="checkbox"/> III <input type="checkbox"/>	Semester of studies*: 1 <input type="checkbox"/> 2 X 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/>	
Number of ECTS credits assigned	3.5		
Language of instruction:	Polish		
PSW Department Name:	Faculty of Health Sciences		
Contact (phone/email):	tel.55 279 17 68 e-mail:dziekanat@psw.kwidzyn.edu.pl		
Type of module/subject related to vocational training*:	<ul style="list-style-type: none"> • basic science X • social sciences and humanities <input type="checkbox"/> • teaching the basics of nursing care <input type="checkbox"/> • teaching in the field of specialist care <input type="checkbox"/> 		
Person responsible for the module/subject:			
Person(s) in charge:	According to the study plan		
Forms of student workload		Student Load (number of teaching hours)	
<i>Contact hours with an academic teacher (according to the study plan)</i>			
Lectures (W)			45
Seminar (S)			
Conversations			
Exercises (C)			30
Practical classes (PK)			
BUNA - independent student work (according to the study plan)			13
Student workload related to professional practice (according to the study plan)			
Total student workload- total number			88
Number of ECTS points per subject/module			3.5, including 0.5 BUNA
Teaching methods	<ul style="list-style-type: none"> • traditional lecture, supported by multimedia techniques, • practical exercises, didactic discussion, • round table method, • self-education. 		
Objectives and purpose of the course	The student should acquire knowledge, skills and understanding of the principles of proper functioning of human tissues and organs, explain the mutual interaction of organs and functional systems, interpret physiological processes in the state of health, define basic physiological functions, use knowledge of physiology in the performance of professional activities.		
Teaching tools	Multimedia board and projector, boards. Medical teaching aids (medical phantoms and simulators, trainers and models, including anatomical models).		
Prerequisites:	Basic knowledge of biology at secondary school level.		
Learning outcomes matrix for a module/subject in relation to the methods of verifying the achievement of the intended learning outcomes and the form of implementation of didactic activities			
Symbol learning effect	A student who passes a module (subject) knows/understands/is able to:	Methods of verifying the achievement of intended learning outcomes	The form of teaching activities * enter symbol
A.W2.	Knows the neurohormonal regulation of physiological and electrophysiological processes occurring in the body.	Standardized written and/or oral examination, project or oral response	W/BUNA

A.W3.	Characterizes the involvement of the body's systems and organs in maintaining its homeostasis.	<i>Standardized written and/or oral examination, project or oral response</i>	W/BUNA
A.W4.	Discusses the physiology of individual body systems and organs.	<i>Standardized written and/or oral examination, project or oral response</i>	W/BUNA
A.W5.	Presents the basics of operation of regulatory systems (homeostasis) and the role of positive and negative feedback.	<i>Standardized written and/or oral examination, project or oral response</i>	W/BUNA
A.U1.	In practice, he uses anatomical nomenclature and utilizes his knowledge of the topography of the organs of the human body.	<i>Written and oral colloquium</i>	Ć/BUNA
O.K7.	Notices and recognizes own limitations in terms of knowledge, skills and social competences and performs self-assessment of educational deficits and needs.	<i>Observation, self-assessment</i>	W/C/BUNA

*W-lecture; S-seminar; K-conversations; Ć-exercises; ZP-practical classes; PZ-professional internships; BUNA-independent student work

EXAMPLES OF METHODS FOR VERIFYING LEARNING OUTCOMES

in terms of knowledge (lectures/seminars): and oral exam (non-standardized, standardized, traditional, problem-based); written exam – the student generates / recognizes the answer (essay, report; short structured questions /SSQ/; multiple choice test /MCQ/; multiple answer test /MRQ/; matching test; Y/N test; answer completion test),

in terms of skills (exercises/conversations): Practical exam; Objective Structured Clinical Examination /OSCE/; Mini-CEX (mini – clinical examination); Realization of assigned task; Project, presentation

in the field of social competences: reflective essay; extended observation by supervisor/lead teacher; 360° feedback (opinions from teachers, colleagues, patients, other collaborators); Self-assessment (including portfolio)

BUNA –the student's own work is verified by assessing the degree to which the assumed learning outcomes have been achieved: a test checking the student's knowledge of the topics specified in the syllabus, but also through term papers, projects, presentations and any other mid-semester work.

PROGRAM CONTENT TABLE

Program content	Number of hours	Relating learning outcomes to CLASSES
LECTURES, semester I		
1. Homeostasis of the body - basic human vital functions and neurohormonal regulation of physiological processes.	3	A.W2.A.W3. O.K7.
2. Nervous system: central, peripheral and autonomic.	3	A.W2.O.K7.
3. Physiology of skeletal, smooth and cardiac muscles.	3	A.W2.A.W4. O.K7.
4. Types of sensation.	3	A.W2.O.K7.
5. Physiology of sensory impressions.	3	A.W2.A.W4. O.K7.
6. Physiology of the endocrine system (hypothalamus, pituitary gland, thyroid, parathyroid glands, adrenals, ovaries and testes).	3	A.W2.A.W4. O.K7.
7. Cardiovascular system, hemodynamics, autoregulation of tissue flow.	3	A.W2.A.W4. O.K7.
8. Respiratory physiology, regulation of breathing, pulmonary circulation and gas exchange.	3	A.W2.A.W4. O.K7.
9. Urinary physiology, renal filtration, RAA system, urine production.	3	A.W2.A.W4. O.K7.
10. Regulation of water-electrolyte and acid-base balance.	3	A.W2.A.W5. O.K7.
11. Digestion and absorption processes in the gastrointestinal tract, gastrointestinal hormones.	3	A.W2.A.W5. O.K7.
12. The role of the liver and pancreas, nutrients, principles of nutrition.	3	A.W2.A.W4. A.W5. O.K7.
13. Basal and exercise metabolism.	3	A.W2.A.W5. O.K7.
14. Physiology of the hematopoietic system.	3	A.W2.A.W4. O.K7.
15. Physiology of reproduction.	3	A.W2.A.W4. O.K7.
EXERCISES, semester I		
1. The organism as a whole, the functions of organs and systems in maintaining homeostasis - the activity of the cell, its metabolism, control and regulation of its functions.	6	A.U1. O.K7.
2. Properties of excitable tissues, excitability, arousal, electrical cell potentials, synaptic transmission, conduction in spinal and spinal cord fibers, spinal nerves.	6	A.U1. O.K7.

3. Reflexes, types of sensation, body movement and posture, wakefulness, sleep.	6	A.U1. O.K7.
4. Control of the internal environment - the role of the autonomic system.	6	A.U1. O.K7.
5. Endocrine gland function, growth hormones, thermoregulation.	6	A.U1. O.K7.
BUNA - independent student work, semester I		
The role of the nervous and hormonal systems in maintaining systemic homeostasis.	3	A.U1. O.K7.
Connection of the work of the musculoskeletal-joint-muscular-nervous system during exercise.	3	A.U1. O.K7.
The importance of the cardiovascular system in maintaining systemic homeostasis.	2	A.U1. O.K7.
The importance of water and electrolyte management in maintaining proper fluid balance.	2	A.U1. O.K7.
The role of the respiratory and digestive systems in providing the necessary products to ensure basic metabolic activity in cells.	3	A.U1. O.K7.

LITERATURE LIST

Basic literature:

— Traczyk W. Z., Fizjologia człowieka w zarysie, Wyd. 8, PZWL, Warszawa 2022.

Additional literature:

— Michajlik A., Ramotowski W.; Anatomia i fizjologia człowieka., wyd. 5, Wydawnictwo PZWL, Warszawa 2021.

Method of passing and forms and basic assessment criteria/examination requirements

How to pass

- Exam - lectures
- Graded exam – exercises
- Pass without BUNA grade

Forms and criteria for passing

PASSING A SUBJECT - THE SUBJECT ENDS WITH AN EXAMINATION

Lecture:

The basis for obtaining a credit/pass is:

- 100% attendance; confirmed by an entry on the attendance list,
- a possible 10% absence compensated in an individual manner agreed with the teacher,
- active participation in lectures (joining the discussion initiated by the lecturer, showing interest in the issues discussed during the lecture),

Exercises

The basis for obtaining credit for a grade is:

- 100% attendance; confirmed by an entry on the attendance list,
- active participation in exercises (joining the discussion initiated by the lecturer, showing interest in the issues discussed during the exercises)
- positive assessment of the colloquium - a test containing single, multiple choice and questions to fill in. For a complete, correct answer, the student receives 1 point, for an incorrect or missing answer, 0 points, a minimum of 60% of correct answers qualifies for a positive assessment.

BUNA assessment criteria - independent work of the student,

Preparation of a project/presentation on a selected topic within the subject area.

Assessment criteria	Rating: pass/fail
Compatibility of the work content with the subject of education	
Content evaluation of the work	
Evaluation of the selection and use of sources	
Assessment of the formal aspect of the work (footnotes, language)	
*(work recommendations)	
	(rate)
	(signature)

* if any of the criteria are not met, the work should be corrected according to the lecturer's recommendations

FINAL SUBJECT EXAM

- The condition for admission to the exam is to obtain credits from lectures and exercises and to pass BUNA (project)
- The exam takes the form of a written test, multiple choice test /MCQ/ with one correct answer (each correct answer is worth 1 point, no answer or incorrect answer is worth 0 points, a minimum of 60% of correct answers qualifies for a positive assessment).

Test Grading Criteria

Rate	Very good (5.0)	Good plus (4.5)	Good (4.0)	Sufficient plus (3.5)	Satisfactory (3.0)	Insufficient (2.0)
% correct answers	93-100%	85-92%	77-84%	69-76%	60-68%	59% and less

FINAL SUBJECT GRADE:

- the exam constitutes 60% of the final grade of the subject
- the remaining 40% is the average of grades from other forms of classes

The final grade is calculated according to the following criteria:

- 3.0 -3.24 – satisfactory (3.0)
- 3.25 -3.74 – satisfactory (3.5)
- 3.75 -4.24 – good (4.0)
- 4.25-4.74 – good plus (4.5)
- 4.75 -5.0 – very good (5.0)

Conditions for making up classes missed due to justified reasons:

Making up missed classes is only possible in the case of a student's illness documented by a medical certificate or other unforeseen reasons. The excuse for classes and crediting the material covered by the exercises during the absence is made by the lecturer conducting the classes.

Both a student returning from dean's leave and a student repeating a year are required to attend all classes and take the exam. Only if the exam in a given year is graded at least satisfactory (3.0) can a student repeating a year due to a different subject be exempted from the obligation to attend classes and pass and pass the subject.

**Acceptance:
Vice-Rector for Education**