MODULE / SYLLABUS
EDUCATION CYCLE 2023-2026

Module/subject name:	**PHYSIOLOGY**	
Direction:	**NURSING**	
Level of study*:	**I degree (bachelor's)** II degree (master's degree)	
Profile of education:	**practical**	
Type of studies*:	**stationary**	
Type of classes*:	obligatory **X** supplementary □ to choose from □	
Year and semester of studies*:	Year of study*: I **X** II□ III□	Semester*: 1 □ **2 X** 3□ 4□ 5 □ 6□
Number of ECTS credits assigned	**3,5**	
Language of instruction:	**English**	
Name of the PSW Department:	**Faculty of Health Sciences**	
Contact (tel./email):	**Tel.** 55,279 17,68 **e-mail:** dziekanat@psw.kwidzyn.edu.pl	
Type of module/subject relating to apprenticeships*:	• basic sciences **X** • social sciences and humanities □ • science in the basics of nursing care □ • specialist care □	
Presenter(s):	according to the studies plan	

Forms of student workload	**Student charge (number of teaching hours)**
Contact hours with an academic teacher (according to the study plan)	
Lectures (W)	**45**
Seminar (S)	
E-learning (e-L)	
Conversatories	
Exercises (C)	**30**
Practical classes (ZP)	
BUNA - independent student work* (*according to the study plan)	**13**
Student's workload related to work placements (***according to the study plan)***	
Total student workload – total number	**88**
Number of ECTS credits per subject/module	**3.5, including 0.5 BUNA**

Didactic methods	• giving (lecture, talk), • programmatic (using audiovisual tools, boards), • activating (case method, situational method, staging method, didactic discussion, project method), • analysis of clinical cases.
Assumptions and aim of the subject	Obtaining by the student knowledge, skills and understanding of the principles of proper functioning of human tissues and organs, explanation of the interaction of organs and functional systems, interpretation of physiological processes in the state of health, determination of basic physiological activities, use of knowledge from physiology in the performance of professional activities.
Teaching tools	Board and multimedia projector, boards.
Prerequisites:	Basic knowledge of biology at the secondary school level.

Matrix of learning outcomes for the module / subject in relation to the methods of verifying the achievement of the intended learning outcomes and the form of implementation of didactic classes

Symbol learning outcome	The graduate: knows and understands / is able to / is ready to	Methods for verifying the achievement of the intended learning outcomes	Form of implementation of didactic classes * enter the symbol
A.W2.	neurohormonal regulation of physiological and electrophysiological processes in the human body;.	*Standardized written and/or oral examination, design or answer established*	W/BUNA

A.W3.	the role of organs and systems in maintaining homeostasis of the body;	*Standardised written and/or oral examination, design or answer established*	W/ BUNA
A.W4.	physiology of individual organs and systems of the body;	*Standardised written and/or oral examination, design or answer established*	W/ BUNA
A.W5.	functioning of the regulation systems (homeostasis) and the role of positive and negative feedback;	*Standardised written and/or oral examination, design or answer established*	W/ BUNA
A.U1.	make practical use of anatomical terminology and the knowledge of the topography of human organs;	*Written and oral colloquium*	Ć/BUNA
O.K7.	perceive and recognise their own limitations in terms of knowledge, skills and social competences and carry out a self-assessment of their educational deficits and needs.	*Observation, self-assessment*	W/Ć/BUNA

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

EXAMPLES OF METHODS FOR THE VERIFICATION OF LEARNING OUTCOMES

in the field of knowledge (lectures/seminars): spoken exam (*non-standardized, standardized, traditional, problem*); written exam – the student generates / recognizes the answer (*essay, report; short structured questions /SSQ/; multiple-choice test /MCQ/; multiple-answer test /MRQ/; match test; T/N test; answer completion test*),

in terms of skills (exercises/seminars): Practical examination; Objective Structured Clinical Examination (OSCE); Mini-CEX (mini – clinical examination); Implementation of the commissioned task; Design, presentation

in the field of social competences: reflective essay; prolonged observation by the tutor / teacher of the teacher; 360° assessment (opinions of teachers, colleagues, patients, other colleagues); Self-assessment (including portfolio)

BUNA – the student's own work is verified by assessing the degree of implementation of the assumed learning outcomes: a test checking the student's knowledge of the subject specified in the syllabus, but also through final papers, projects, presentations and any other mid-term work.

TABLE OF PROGRAMME CONTENTS

Program content	**Number of hours**	**Reference of learning outcomes to CLASSES**
LECTURES, semester I		
1. Homeostasis of the system – basic human life 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 myocardial 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, adrenal glands, ovaries and testicles).	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, respiratory regulation, pulmonary circulation and gas exchange.	3	A.W2. A.W4. O.K7.
9. Physiology of the urinary system, 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. Processes of digestion and absorption 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. Reproductive physiology.	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 excitatory tissues, excitability, excitation, electrical potentials of cell, synaptic transmission, conduction in core and non-core fibers, spinal nerves.	6	A.U1. O.K7.
3. Reflexes, types of sensation, movement and posture of the body, wakefulness sleep.	6	A.U1. O.K7.
4. Control of the internal environment – the role of the autonomous system.	6	A.U1. O.K7.
5. The activity of the endocrine glands, growth hormones, thermoregulation.	6	A.U1. O.K7.
BUNA - independent student work, semester I		
1. The role of the nervous and endocrine systems in maintaining systemic homeostasis.	3	A.U1. O.K7.
2. Linking the work of the osteoarticular-musculoskeletal system during exercise in conditions	3	A.U1. O.K7.
3. The importance of the cardiovascular system in maintaining systemic homeostasis.	2	A.U1. O.K7.
4. The importance of the water-electrolyte farm in conducting the correct balance of fluids.	2	A.U1. O.K7.
5. The role of the respiratory system and gastrointestinal tract in providing the necessary products to ensure basal metabolism in cells.	3	A.U1. O.K7.

LIST OF LITERATURE

Basic literature:

1. *Anatomy and Physiology for Nursing and Healthcare Students at a Glance*, Peate Ian, Blackwell Publ. 2022

Supplementary literature:

1. *Nurses! Test yourself in Anatomy and Physiology 2e*, Open University Press, 2021

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

Method of credit

- Exam – lectures
- Passing with grade – exercises
- Passing without BUNA grade

Forms and criteria for passing

PASSING THE SUBJECT - THE SUBJECT ENDS WITH AN EXAM

Lecture:

The basis for obtaining credit/zal is:

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

Exercises/seminars

The basis for obtaining credit for the assessment is:

- presence of 100%; confirmed by an entry on the attendance list,
- active participation in the exercises (joining the discussion initiated by the lecturer, showing interest in the issues discussed during the exercises,)
- correct, positively assessed oral answer to 3 questions in the field of content related to learning outcomes in the field of knowledge and skills, asked to the student during the exercises,

Evaluation criteria — oral answer

Assessment	Criterion
Very good	Correct, full, independent answer to 3 questions asked to the student by the lecturer
Endorsement	Correct, requiring little orientation by the teacher, answer to the 3 questions asked to the student
Sufficient	Correct, incomplete, requiring significant orientation by the teacher answer to the 3 questions asked to the student
Insufficient	No answer or incorrect answer to each of the 3 questions asked to the student

BUNA – spoken answer – criteria jw. or evaluation jn.

BUNA evaluation criteria - independent student work

Evaluation criteria	Assessment: zal/nzal
Compliance of the content of the work with the subject of education	

Substantive assessment of work	
Evaluation of the selection and use of sources	
Assessment of the formal side of the work (footnotes, language)	
	**(recommendations for work)*

	(rating)	*(signature)*

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

FINAL EXAM IN THE SUBJECT

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

Test evaluation criteria

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

and/or reply orally

Evaluation criteria – oral answer

Assessment	**Criterion**
Very good	Correct, full, independent answer to 3 questions asked to the student by the lecturer
Endorsement	Correct, requiring little orientation by the teacher, answer to the 3 questions asked to the student
Sufficient	Correct, incomplete, requiring significant orientation by the teacher answer to the 3 questions asked to the student
Insufficient	No answer or incorrect answer to each of the 3 questions asked to the student

FINAL GRADE IN THE SUBJECT:

- the exam accounts for 60% of the final grade in the subject
- the remaining 40% is the average grade from other forms of classes

The final grade is recalculated according to the following criteria:
3.0 -3.24 – sufficient (3.0)
3.25 -3.74 – sufficient (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 abandoned for justified reasons:
Making up for abandoned classes is possible only in the case of a student's illness documented by sick leave or other random reasons. Justification of classes and passing of the material being the subject of exercises during the period of absence is made by the lecturer conducting the classes.
Both a student returning from dean's leave and a student repeating the year is obliged to attend all classes and take the exam. Only if the exam in a given year has been obtained with at least a sufficient grade (3.0), a student repeating the year due to another subject may be exempted from the need to attend classes and pass and pass the subject.

Acceptance: Vice-Rector for Teaching and Student Affairs