MODULE / SYLLABUS
EDUCATION CYCLE 2022-2025

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 with regard to methods of verifying the achievement of the intended learning outcomes and the form of delivery of learning activities

Symbol for learning effect	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.	Knows the neurohormonal regulation of physiological and electrophysiological processes occurring in the body.	*Standardized written and/or oral examination, design or answer established*	W/BUNA
A.W3.	Characterises the involvement of the body's systems and organs in maintaining its homeostasis.	*Standardised written and/or oral examination, design or answer established*	W/ BUNA
A.W4.	Discusses the physiology of the various systems and organs of the body.	*Standardised written and/or oral examination, design or answer established*	W/ BUNA
A.W5.	Demonstrates the fundamentals of regulatory systems (homeostasis) and the role of positive and negative feedback.	*Standardised written and/or oral examination, design or answer established*	W/ BUNA
A.U1.	Uses anatomical nomenclature in practice and uses knowledge of the topography of the organs of the human body.	*Written and oral colloquium*	Ć/BUNA
O.K7.	Recognises and acknowledges his/her own limitations in terms of knowledge, skills and social competence and makes a self-assessment of deficits and learning 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 body-basic human vital functions and neurohormonal regulation of physiological processes.	3	A.W2. A.W3. O.K7.
2. The 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, 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. Physiology of the respiratory system, regulation of respiration, 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. Digestion and absorption processes in the gastrointestinal tract, gastrointestinal hormones.	3	A.W2. A.W5. O.K7.
12. 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, functions of organs and systems in the maintenance of homeostasis - cell function its metabolism, control and regulation of its functions.	6	A.U1. O.K7.
2. Properties of excitable tissues, excitability, excitation, electrical potentials of the cell, synaptic transmission, conduction in medullary and non-medullary fibres, spinal nerves.	6	A.U1. O.K7.
3. Reflexes, types of sensation, movement and posture, 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 skeletal-articular-muscular-nervous system during exercise.	3	A.U1. O.K7.
3. The importance of the cardiovascular system in maintaining body homeostasis.	2	A.U1. O.K7.
4. The importance of water and electrolyte metabolism, in maintaining a normal fluid balance.	2	A.U1. O.K7.
5. The role of the respiratory system and gastrointestinal tract in providing the necessary products to ensure basic cellular metabolism.	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

Forms of assessment and basic assessment criteria/examination requirements

Form of assesment

- Exam – lectures
- Pass mark – exercises
- Credit without evaluation BUNA
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Forms and criteria of obtaining credit

- CREDIT OF THE COURSE - THE COURSE ENDS WITH AN EXAM
- **Lecture:**
- The basis for obtaining credit/zal is:
- 100% attendance; confirmed by an entry on the attendance register,
- possible 10% absence compensated in a way individually established with the teacher,
- active participation in lectures (joining the discussion initiated by the lecturer, showing interest in the issues discussed during the lecture),
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Exercises/seminars

- The basis for obtaining credit is:
- attendance 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,)
- A positive mark from the test - a test including single-choice, multiple-choice and supplementary questions. A full, correct answer gives the student 1 point, an incorrect or missing answer gives 0 points, a minimum of 60% of correct answers qualifies for a positive mark.

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

- A prerequisite for admission to the examination is a pass in the lectures and exercises and a pass in the BUNA (project).
- The examination is in 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% correct answers qualifies for a pass mark.

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 missed for excused reasons:
Making up for abandoned classes is possible only in the case of a student's illness documented by sick leave or Making up missed classes is possible only in the case of a student's illness documented by a medical exemption or other fortuitous reasons. Excusing classes and passing the material covered during the period of absence is done by the lecturer conducting the classes. Both a student returning from dean's leave and a student repeating a year are obliged to attend all classes and to take examinations. Only if a grade of at least "pass" (3.0) is obtained in an examination in a given year may a student repeating a year because of another subject be exempted from the obligation to attend classes and to pass the subject.

Acceptance: Vice-Chancellor for Science and Educational Quality