MODULE / SYLLABUS
EDUCATION CYCLE 2023-2026

Module/subject name:	**MICROBIOLOGY AND PARASITOLOGY**
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 **X** 2 □ 3□ 4□ 5 □ 6□
Number of ECTS credits assigned	**1,5**
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)	**24**
Seminar (S)	
E-learning (e-L)	
Conversatories	
Exercises (C)	
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	**37**
Number of ECTS credits per subject/module	**1.5, including 0.5 BUNA**

Didactic methods	• giving (lecture, talk), • programmatic (using audiovisual tools, boards), • analysis of clinical cases.
Assumptions and aim of the subject	Acquisition by the student of the ability to use knowledge in the field of general and specific microbiology, assess the effectiveness of disinfection and sterilization, describe the structure and function of the immune system, and its operation, and understand the mechanisms of immune reactions.
Teaching tools	Board and multimedia projector, boards.
Prerequisites:	Knowledge of biology at the high school level. Basic biology skills.

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.W17.	classification of microorganisms, including pathogenic microorganisms and those present in the human physiological flora;	*Written and/or oral colloquium, draft or oral reply*	W/BUNA
A.W18.	basic concepts in microbiology and parasitology, and methods used in microbiological diagnostics;	*Written and/or oral colloquium, draft or oral reply*	W/BUNA
A.W19.	individual groups of medications, their mechanisms of action, metabolism and side effects;	*Written and/or oral colloquium, draft or oral reply*	W/BUNA

A.U6.	identify the most common human parasites on the basis of their form, life cycles, and disease symptoms;	*Written and/or oral colloquium, draft or oral reply*	W/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/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. Structure, morphology, physiology of bacteria.	2	A.W17. A.W18. A.U6. O.K7.
2. Physiological flora of man. Carrier of pathogenic microorganisms. Detailed bacteriology.	2	A.W17. A.W18. A.U6. O.K7.
3. Structure, morphology, physiology of hyphae fungi and yeast. Fungi as human pathogens.	2	A.W17. A.W18. A.U6. O.K7.
4. Characteristics of viruses. The most important pathogenic viruses.	2	A.W17. A.W18. A.U6. O.K7.
5. Division of parasites. The most common parasitic diseases.	3	A.W17. A.W18. A.U6. O.K7.
6. Food poisoning and infections.	3	A.W18. A.U6. O.K7.
7. Systemic infections.	3	A.W18. A.U6. O.K7.
8. Basic knowledge of immunology and epidemiology.	2	A.W18. A.U6. O.K7.
9. Vaccines and immune sera. Preventive Vaccination Program in Poland.	2	A.W18. A.W19. A.U6. O.K7.
10. Principles of rational antibiotic therapy. Empirical, targeted, sequential antibiotic therapy. Mechanisms of bacterial resistance to antibiotics and chemotherapeutic agents.	3	A.W18. A.W19. A.U6. O.K7.
BUNA - independent student work, semester I		
1. Broadening the knowledge of the metabolism of bacteria and fungi.	4	A.W18. A.U6. O.K7.
2. Broadening the knowledge of viral diseases occurring in humans.	4	A.W17. A.U6. O.K7.
3. Broadening the knowledge in the field of infectious disease prevention, immunology and epidemiology.	5	A.W19. A.U6. O.K7.

LIST OF LITERATURE

Basic literature:

1. Murray P. R., *Murray's Basic Medical Microbiology: Foundations and Clinical*, Elsevier - Health Sciences Division, 2023.
2. Sandhya Bhat, Apurba S Sastry, *Essentials of Medical Parasitology*, JP Medical Publishers, 2018.

Suplementary literature:

1. Gupte S., *The Short Textbook of Medical Microbiology for Nurses*, JP Medical Publishers, cop. 2017.

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

Method of passing

- Passing with grade – lectures
- Passing without a grade – BUNA

Forms and criteria for passing

Lecture:
The basis for obtaining credit 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),
- obtaining a positive assessment from the colloquium,
- BUNY passing.

Written colloquium:

- 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 – spoken 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

Project
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

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