MODULE / SYLLABUS
EDUCATION CYCLE 2022-2025

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 effect	Students who pass the module (subject) will know/understand/be able to:	Methods for verifying the achievement of the intended learning outcomes	Form of implementation of didactic classes * enter the symbol
A.W17.	Presents a classification of micro-organisms, including pathogenic micro-organisms and those present in the human physiological microbiota.	*Written and/or oral colloquium, draft or oral reply*	W/BUNA

A.W18.	Knows the basic concepts of microbiology and parasitology and the methods used in microbiological diagnosis	*Written and/or oral colloquium, draft or oral reply*	W/BUNA
A.W19.	Characterises the different groups of medicinal agents, their main mechanisms of action and the transformations in the body and side effects they cause.	*Written and/or oral colloquium, draft or oral reply*	W/BUNA
A.U6.	Recognises the most common human parasites on the basis of their structure, life cycles and the disease symptoms they cause.	*Written and/or oral colloquium, draft or oral reply*	W/BUNA
O.K7.	Recognises and acknowledges his/her own limitations in knowledge, skills and social competence and makes a self-assessment of deficits and learning 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. Carriage of pathogenic microorganisms. Detailed bacteriology.	2	A.W17. A.W18. A.U6. O.K7.
3. Structure, morphology, physiology of filamentous fungi and yeasts. Fungi as pathogens of man	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.

Forms of assessment and basic assessment criteria/examination requirements

Form of assesment

- Exam – lectures
- Credit without evaluation BUNA

Forms and criteria of obtaining credit

Lecture:

- The basis for obtaining credit is:
- active participation in lectures (joining the discussion initiated by the lecturer, showing interest in the issues discussed during the lecture),
- obtaining a positive mark in the colloquium,
- passing the BUNA

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% 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

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 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