



MODULE / SYLLABUS
EDUCATION CYCLE 2023-2026

Module/subject name:	RADIOLOGY		
Direction:	NURSING		
Level of study*:	I degree (bachelor's) II degree (master's degree)		
Profile of education:	practical		
Type of studies*:	stationary / non-stationary		
Type of classes*:	obligatory X supplementary <input type="checkbox"/> to choose from <input type="checkbox"/>		
Year and semester of studies*:	Year of study*: I X II <input type="checkbox"/> III <input type="checkbox"/>	Semester*: 1 <input type="checkbox"/> 2X 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/>	
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*:	<ul style="list-style-type: none"> • basic sciences X • social sciences and humanities <input type="checkbox"/> • science in the basics of nursing care <input type="checkbox"/> • specialist care <input type="checkbox"/> 		
Person responsible for the module/subject:	according to the studies plan		
Presenter(s):	according to the studies plan		
Forms of student workload		Student charge (number of teaching hours)	
<i>Contact hours with an academic teacher (according to the study plan)</i>			
Lectures (W)		15	
Seminar (S)			
E-learning (e-L)			
Conversatories			
Exercises (C)		12	
Practical classes (ZP)			
BUNA - independent student work (according to the study plan)		11	
Student's workload related to work placements (<i>according to the study plan</i>)			
Total student workload – total number		38	
Number of ECTS credits per subject/module		1.5, including 0.5 BUNA	
Didactic methods	<ul style="list-style-type: none"> • 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	Preparing the student for radiology issues.		
Teaching tools	Board and multimedia projector, boards.		
Prerequisites:	Basic knowledge of anatomy and physiology, based on high school.		
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.W26.	imaging methods and relevant procedures, principles of radiation protection.	<i>Written and/or oral colloquium, draft or oral reply</i>	W/Ć/BUNA
A.U11.	follow the principles of radiation protection.	<i>Written and/or oral colloquium, draft or oral reply</i>	W/Ć/BUNA
O.K4.	take responsibility for their professional activities;	<i>Written and/or oral colloquium, draft or oral reply</i>	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.	<i>Observation, self-assessment</i>	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): oral exam (<i>non-standardized, standardized, traditional, problem</i>); written exam – the student generates / recognizes the answer (<i>essay, report; short structured questions /SSQ/; multiple-choice test /MCQ/; multiple-answer test /MRQ/; match test; T/N test; answer completion test</i>), 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 II			
1.	Physical basics of X-rays. Technical basics of X-ray diagnostics. Shading agents. Use of radioactive isotopes. Ultrasound (ultrasound).	3	A.W26. O.K7.
2.	Computed tomography and PET - indications, rules of examination. Magnetic resonance imaging - a technique of examination, indications. Mammography - examination technique, indications.	4	A.W26. O.K7.
3.	Protection against ionizing radiation, occupational exposure, protection of the patient from overexposure. Contraindications and limitations of indications for X-ray diagnostics. Preparation of the patient for individual diagnostic radiological examinations. Complications after various types of radiological radiological examinations. Principles of treatment of malignant neoplasms with radiation therapy (radical, palliative, symptomatic treatment).	6	A.W26. U11. O.K7.
4.	Radiosensitivity of tissues. Indications for radiation therapy. Detailed therapy of tumors of various organs and parts of the body.	2	A.W26. O.K7.
EXERCISES, semester II			
1.	The use of ionizing radiation in medicine.	3	A.W26. U11. O.K4. O.K7.
2.	Diagnostic imaging of indications and preparation of the patient for examination.	3	A.W26. U11. O.K4. O.K7.
3.	Radiation therapy indicates radiation reactions, complications, care for the sick, radiation protection.	3	A.W26. U11. O.K4. O.K7.
4.	Systemic treatment in oncology, dangers, preparation of the patient, care during and after treatment.	3	A.W26. U11. O.K4. O.K7.
BUNA - independent student work, semester II			
1.	Care for a patient treated with radiation therapy.	4	A.W26. U11. O.K4.
2.	Complications after radiation therapy.	4	A.W26. O.K7.
3.	Documentation of the radiation therapy department.	3	A.W26. O.K7.
LIST OF LITERATURE			
Basic literature: 1. Herring W., <i>Learning Radiology: Recognizing the Basics</i> , Elsevier - Health Sciences Division, cop. 2023. Supplementary literature: 1. Rajat Jain, Virendra Jain, <i>Review of Radiology</i> , JP Medical Publishers, cop. 2021.			
Method of passing and forms and basic assessment criteria/examination requirements			
Method of credit — Passing with grade – lecture — Passing with grade – exercises — 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 pass

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 – 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

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

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

FINAL GRADE IN THE SUBJECT:

- arithmetic mean of grades from the colloquium of lectures and exercises

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