

Subject card

Subject name and code	Positron Emission Tomography, PG_00089950						
Field of study	Medical Physics						
Date of commencement of studies	October 2023		Academic year of realisation of subject		2025/2026		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Optional subject group		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	3		Language of instruction		Polish		
Semester of study	6		ECTS credits		1.0		
Learning profile	academic		Assessment form		credit		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		Grzegorz Romanowicz				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	15		0.0		0.0	15
Subject objectives	The aim of the course is to expand the students knowledge of positron emission tomography (PET).						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[FIZMEDL3_K01] knows the limitations of his own knowledge and understands the need for further education		The student is aware of the limitations of their own knowledge and skills in the field of positron emission tomography (PET) and understands the need for continuous self-education and updating of knowledge in modern medical imaging techniques.		[SK4] test/exam - oral or written		
	FIZMEDL3_W32		The student possesses an extended knowledge of the physical principles of positron emission tomography (PET), the construction of PET systems, and the main clinical applications of this modality.		[SW4] test/exam - oral or written		
Subject contents	Theoretical fundamentals of positron emission tomography. Positron emitters. Production of radiopharmaceuticals. Pocket cyclotrons. Construction of positron tomographs: BGO and LSO detectors. Hybrid systems: PET/CT and PET/MRI. Time-of-flight technology. PET quality control. Radiation protection and dosimetry requirements in PET. Main clinical applications of PET: oncology, cardiology, neurology, inflammation diagnostics. Sources of diagnostic errors in PET. Quality control in PET.						
Prerequisites and co-requisites	brak						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	test		51.0%		100.0%		
Recommended reading	Basic literature		materiały w Ekstranecie Gumed				
	Supplementary literature		materiały w Ekstranecie Gumed				
	eResources addresses						

Example issues/ example questions/ tasks being completed	
Work placement	Not applicable

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