University of Gdańsk

Subject card

Subject name and code	Nuclear Law and Related Regulations and Quality Management Systems, PG_00182201						
Field of study	Medical Physics						
Date of commencement of studies	October 2027		Academic year of realisation of subject	2028/2029			
Education level	Master's studies		Subject group	Obligatory subject group in the field of study Humanistic-social subject group			
Mode of study	full-time studies		Mode of delivery	at the university			
Year of study	2		Language of instruction	Polish			
Semester of study	3		ECTS credits	3.0			
Learning profile	academic		Assessment form	exam			
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor						
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	15.0	0.0	0.0	0.0	45
	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	45		0.0	30.0	75	
Subject objectives	Familiarity with the legal regulations concerning the peaceful use of atomic energy, the principles of protecting individuals from hazards resulting from the medical use of ionizing radiation, and the rules for managing radioactive waste. Understanding the relationship between national atomic law and international law, as well as the principles of civil liability for nuclear damage.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[FIZMEDMU2_W07] Knows and understands the principles of occupational health and safety to a degree that allows for independent work in medical facilities and research laboratories.	The student knows and understands the principles of nuclear safety and radiation protection, including procedures for handling radioactive waste and the principles for implementing and documenting quality management systems, for example, according to the ISO 9001 standard. They understand the role and responsibilities of the competent authorities in matters of nuclear safety and radiation protection, which is crucial for safe work. They know the procedures for obtaining permits and licenses necessary to conduct activities in the peaceful use of atomic energy, which enables independent work in medical facilities.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
[FIZMEDMU2_W08] Knows and understands the economic, legal, and ethical conditions related to the activities of a medical physicist.	The student knows and understands Polish and international legal acts, including those within the European Union, concerning nuclear safety and radiation protection. They understand the principles of civil liability for nuclear damage and the principles of supervision and control for compliance with nuclear safety regulations. They know the rules for the trade of radiopharmaceutical products and the principles for transporting nuclear materials. They know and understand the legal and ethical aspects of using ionizing radiation for medical purposes, including the health protection of employees and patients.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report

Subject contents

Nuclear Safety and Radiation Protection: This includes licensing for nuclear safety and radiation protection, health protection for employees, the medical use of ionizing radiation, nuclear facilities, public information regarding nuclear power plants, and the management of radioactive waste. It also covers the principles of transporting nuclear materials, supervision and control of compliance with nuclear safety and radiation protection regulations, and the competent authorities in these matters.

Nuclear Liability and International Law: The lecture will address the principles of civil liability for nuclear damage and the principles of fulfilling international obligations, including those within the European Union, concerning nuclear safety, radiation protection, safeguards for nuclear materials, and the control of nuclear technologies.

Quality Management Systems: This section covers the requirements of ISO 9001. Students will learn about the implementation stages of a Quality Management System (QMS), QMS documentation, and the costs of quality.

Workshop Topics: Quality Management System Documentation, This includes group projects and presentations.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
projects	51.0%	30.0%
exam	51.0%	70.0%

Recommended reading

Basic literature	not applicable
Supplementary literature	not applicable
eResources addresses	

Example issues/ example questions/ tasks being completed

not applicable

Work placement

Not applicable

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