

Course title Advanced nuclear laboratory		ECTS code	
Name of unit administrating study Faculty			
Studies			
Field of study	Type	Form	
Chemistry	Master Degree	Full-time studies	
Teaching staff dr hab. Dagmara Strumińska-Parulska, prof. UG; dr Grzegorz Olszewski, mgr Aleksandra Moniakowska, mgr Jarosław Wieczorek			
Forms of classes, the realization and number of hours: Laboratory (75 h)		ECTS credits 9	
A. Forms of classes, in accordance with the UG Rector's regulations			
B. The realization of activities			
C. Number of hours			
The academic cycle			
Type of course Facultative		Language of instruction English	
Teaching methods Performing a series of practical.		Form and method of assessment and basic criteria for evaluation or examination requirements	
		A. Final evaluation, in accordance with the UG study regulations	
		B. Assessment methods Laboratory exercise: conducting experiments, report preparation (in the form of poster and oral poster presentation)	
		C. The basic criteria for evaluation or exam requirements Laboratory exercises: <ul style="list-style-type: none"> ▪ Presence in the laboratory classes and practical conducting of experiments in accordance with the instructions ▪ Positive evaluation of the report on laboratory experiments (in the form of poster and oral poster presentation) 	
Required courses and introductory requirements Knowledge of the principles of general chemistry			
Aims of education <ul style="list-style-type: none"> • To gain knowledge in the field of basic and nuclear chemistry • To gain knowledge in the field of radiochemistry • To gain knowledge in the field of radiation protection 			
Course contents A. Laboratory Performing a series of practical exercises in the field of nuclear and elementary physics, methods of measuring isotope properties and impact ionizing radiation on matter and other phenomena at the nuclear level.			

Bibliography of literature

A. Literature required to pass the course

Skwarzec B., Kabat K., Procedury i procesy w analizie radiochemicznej, 2009

Skwarzec B., Boryło A., Strumińska-Parulska D., Olszewski G., Przewodnik do ćwiczeń laboratoryjnych z chemii jądrowej, radiochemii oraz bezpieczeństwa jądrowego i monitoringu skażeń promieniotwórczych, 2017

B. Extracurricular readings

Dahlgard H., Nordic Radioecology: The Transfer of Radionuclides through Nordic Ecosystems to Man, Elsevier, 1994,

Matishov D., Matishov G., Radioecology in Northern European Seas, Springer, 2004,