

<b>Course title:</b> Nuclear chemistry						
	<b>Specialty</b>	<b>Semester</b>	<b>Number of ECTS</b>	<b>Number of hours in the class</b>	<b>Form</b>	
	<b>Foreign students</b>	<b>winter</b>	<b>2</b>	<b>30</b>	<b>Seminar</b>	
<b>Name of lecturer:</b> dr hab. Dagmara Strumińska-Parulska, prof. UG; dr Grzegorz Olszewski, mgr Aleksandra Moniakowska						
<b>Objective of the course (expected learning outcomes and competences to be acquired)</b>						
<ul style="list-style-type: none"> <li>familiarizing students with all issues listed in the seminar program content,</li> </ul>						
<b>Prerequisites:</b>						
none						
<b>Teaching methods:</b>						
<ul style="list-style-type: none"> <li>thematic presentations</li> </ul>						
<b>Course contents</b>						
<p>A. Problems of the lecture: Elements of nuclear chemistry, atomic nucleus structure and elementary particles. Spontaneous nuclear transformations. Radioactive equilibrium. Theory of radionuclides decays. Natural and artificial radioactivity. Radioactive activity and its units. Radiometric methods in radiochemical analysis. Origin and occurrence of radioactive elements in nature. Dosimetry, radiation doses and their units. The use of radioactive elements in science, technology and medicine. Nuclear weapon. Nuclear reactions as a source of energy. Nuclear Power. Nuclear reactor and reactor processes. Disasters at Chernobyl and Fukushima nuclear plants and their effects on the environment.</p>						
<b>Recommended reading:</b>						
<p>B. Skwarzec, <i>Radiochemia środowiska i ochrona radiologiczna</i>, Wydawnictwo DJ s.c, Gdańska, 2002  W. Szymański, <i>Chemia jądrowa</i>, PWN, Warszawa 1996  J. Sobkowski i M. Jelińska-Kaźmierczuk, <i>Chemia jądrowa</i>, Wydawnictwo Adamantan, Warszawa, 2006  A. Czerwiński, <i>Chemia jądrowa i promieniotwórczość</i>, Oficyna Edukacyjna Krzysztof Pazdro, Warszawa 1998</p>						
<b>Assessment methods:</b>						
<ul style="list-style-type: none"> <li>Oral presentation</li> </ul>						
<b>Language of instruction:</b> English						
<b>Contact:</b>						
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