

<b>Study program:</b> Integrated academic studies in medicine			
<b>Type and level of the study program:</b> integrated academic studies			
<b>Course title:</b> Nuclear medicine (M4-NUCL)			
<b>Teacher:</b> Mihailović M. Jasna, Lučić M. Silvija, Žeravica R. Radmila, Ilinčić P. Branislava			
<b>Course status:</b> elective			
<b>ECTS Credits:</b> 3			
<b>Condition:</b>			
<b>Course aim</b> The aim of this course is to provide students with knowledge on basic rules for application of open sources of ionizing radiation and diagnostic and therapeutic options of radioactive isotopes.			
<b>Expected outcome of the course:</b> Student learn about basic nuclear diagnostic and therapy methods in particular fields of medicine, basic principles of radiation detection, nuclear-medicine imaging, equipment and instruments and preparing patients for nuclear-medicine examination. Students learn to interpret nuclear medicine findings, their diagnostic value and limitations.			
<b>Course description</b> <i>Theoretical education</i> Includes lectures of basic principles of nuclear medicine and clinical nuclear medicine. In the first part following issues will be discussed: radioactive isotopes and radiation, physical principles of radiation detection and equipment (scintillation detector, gamma camera, PET), basic principles of radiobiology, radio-pharmacology and radiation protection. Second part will include basic principles of clinical application of nuclear-medicine methods in different clinical conditions, as well as radionuclide therapy.  <i>Practical education: exercises, other forms of education, research related activities</i> It represents the introduction to the safety rules in nuclear medicine departments, the use of radioisotopes in nuclear-medicine laboratory: features and application, basic principles of radiopharmaceutical preparations, dosimetry, as well as the basic principles of interpretation of nuclear medicine findings.			
<b>Literature</b> <i>Compulsory</i> 1. Ziessman HA, O'Malley JP, Thrall JH. Nuclear Medicine: The Requisites. 4th ed. Philadelphia, United States; 2013. 2. Fogelman I, Clarke S, Cook G, Gnanasegaran G. Atlas of Clinical Nuclear Medicine. 3rd ed. United Kingdom: Taylor & Francis Ltd.; 2014 <i>Additional</i> 1. Leslie WD, Greenberg ID. Nuclear Medicine. 1st ed. Georgetown: Landes Bioscience; 2003. 2. Mettler FD, Guiberteau MJ. Essentials of Nuclear Medicine Imaging. 6th ed. Elsevier - Health Sciences Division; Philadelphia, United States; 2012.			
<b>Number of active classes</b>			Other:
Lectures: 30	Practice: 15	Other types of teaching: Research related activities:	
<b>Teaching methods:</b> Interactive lectures and practices; Consultations; Essays			
<b>Student activity assessment</b> (maximally 100 points)			
<b>Pre-exam activities</b>	<b>points</b>	<b>Final exam</b>	<b>points</b>
Lectures	10	Written	
Practices	20	Oral	60
Colloquium		.....	
Essay	10		