

Study program: Integrated academic studies in medicine			
Type and level of the study program: integrated academic studies			
Course title: Nuclear medicine (M4-NUCL)			
Teacher: Radmila R. Žeravica, Branislava P. Ilinčić, Silvija M. Lučić			
Course status: elective			
ECTS Credits: 3			
Condition: -			
Course aim 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.			
Expected outcome of the course: 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.			
Course description <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.			
Literature <i>Compulsory</i> 1. Ziessman HA, O'Malley JP, Thrall JH. Nuclear Medicine. The Requisites, 4 th ed. Philadelphia, United States; 2013. 1. Fogelman I, Clarke S, Cook G, Gnanasegaran G. Atlas of Clinical Nuclear Medicine, 3 rd ed. United Kingdom: Taylor & Francis Ltd.; 2014 <i>Additional</i> 1. Leslie WD, Greenberg ID. Nuclear Medicine, 1 st ed. Georgetown: Landes Bioscience; 2003. 2. Mettler FD, Guiberteau MJ. Essentials of Nuclear Medicine Imaging, 6 th ed. Elsevier - Health Sciences Division; Philadelphia, United States; 2012.			
Number of active classes			Other:
Lectures: 30	Practice: 15	Other types of teaching: Research related activities:	
Teaching methods Interactive lectures and practices; Consultations; Essays			
Student activity assessment (maximally 100 points)			
Pre-exam activities	points	Final exam	points
Lectures	10	Written	
Practices	20	Oral	60
Colloquium		
Essay	10		