



<b>Course ID:</b> HDFH26	<b>Course name: RADIONUCLIDES IN METABOLIC PROCESSES</b>		
<b>Cycle: THIRD</b>	<b>Year: FIRST</b>	<b>Semester: II</b>	<b>ECTS credits: 15</b>
<b>Course status: ELECTIVE</b>		<b>Total course hours: 90</b> Lectures: 45 Laboratory: 45	
<b>Teaching participants:</b>	<b>Teachers and associates with expertise in the field to which the subject belongs</b>		
<b>Prerequisite for enrollment:</b>	-		
<b>Course aims:</b>	The aim of the module is to explain to students the pharmacokinetics of radionuclides, as well as the application of radionuclides in the treatment of many diseases.		
<b>Thematic course units:</b>	<ol style="list-style-type: none"> <li>1. Production of radionuclides</li> <li>2. Pharmacokinetics and modeling</li> <li>3. Synthesis and application of radiopharmaceuticals for PET method</li> <li>4. Synthesis of radiopharmaceuticals designated I131</li> <li>5. Application of scintigraphy techniques</li> <li>6. Synthesis of drug and enzyme labeling</li> <li>7. Application of PET in labeling brain receptors and enzymes</li> </ol>		
<b>Learning outcomes:</b>			
<b>Teaching methodology:</b>			
<b>Assessment methods and grading system<sup>1</sup>:</b>	<b>Grading criteria</b>		
	Criteria	Maximal score	Required score
	1. Midterms	30	16,5
	2. Seminar paper	30	16,5
	3. Final exam	40	22
	Total	100	55
	Note: Class activity is scored through student work on exercises.		
	<b>Scores and grading</b>		
	Score	Grade (BiH)	Grade (ECTS)
	< 55	5	F, FX
55-64	6	E	
65-74	7	D	
75-84	8	C	

<sup>1</sup>The grading structure for each subject is determined by the Council of the organizational unit before the beginning of the academic year in which the subject is taught as per Article 64, paragraph 6 of the Law on Higher Education of Sarajevo Canton

	85-94	9	B
	95-100	10	A
<b>Literature<sup>2</sup>:</b>	<p>Supplementary literature:</p> <ol style="list-style-type: none"> <li>1. M. J. Welch, C. S. Redvanly, Handbook of Radiopharmaceuticals, Radiochemistry and Applications, Wiley Inc. USA, 2003</li> <li>2. S. Vallabhajosula, Molecular Imaging, Radiopharmaceuticals for PET and SPECT, Springer, 2009</li> <li>3. T. Stigbrand, J. Carlsson, G.P. Adams, Targeted Radionuclide Tumor Therapy, Springer, 2008</li> </ol>		

<sup>2</sup>The Senate of the higher education institution, as an institution, or the Council of the organizational unit of the higher education institution, as a public institution, determines by a special decision, which is published on its website before the beginning of the academic year obligatory, mandatory and recommended textbooks and manuals, as well as other recommended literature based on which exams are prepared and taken as per Article 56, paragraph 3 of the Law on Higher Education of the Sarajevo Canton