



Uniwersytet Medyczny we Wrocławiu
KATEDRA I KLINIKA ENDOKRYNOLOGII,
DIABETOLOGII I LECZENIA IZOTOPAMI
ul. Pasteura 4, 50-367 Wrocław
tel. 71 784 25 46, faks: 71 327 09 57

Syllabus for academic year: 2021/2022
Training cycle: 2018/2019 - 2023/2024

Description of the course													
Course	Nuclear medicine								Group of detailed education results				
	Group code		Group name										
									F		Interventional Clinical Sciences		
Faculty	Faculty of Medicine												
Major	medicine												
Level of studies	<input checked="" type="checkbox"/> uniform magister studies <input type="checkbox"/> 1 st degree studies <input type="checkbox"/> 2 nd degree studies <input type="checkbox"/> 3 rd degree studies <input type="checkbox"/> postgraduate studies												
Form of studies	<input checked="" type="checkbox"/> full-time <input type="checkbox"/> part-time												
Year of studies	IV					Semester:		<input type="checkbox"/> winter <input checked="" type="checkbox"/> summer					
Type of course	<input checked="" type="checkbox"/> obligatory <input type="checkbox"/> limited choice <input type="checkbox"/> free choice / optional												
Language of study	<input type="checkbox"/> Polish <input checked="" type="checkbox"/> English												
Number of hours													
Form of education													
	Lectures (L)	Seminars (SE)	Auditorium classes (AC)	Major Classes – not clinical (MC)	Clinical Classes (CC)	Laboratory Classes (LC)	Classes in Simulated Conditions (CSC)	Practical Classes with Patient (PCP)	Foreign language Course (FLC)	Physical Education (PE)	Vocational Practice (VP)	Directed Self-Study (DSS)	E-learning (EL)
Winter semester: not applicable													
..... (Dep. in charge of the course)													
Direct (contact) education ¹													
Distance learning ²													
Summer semester:													
Department of Endocrinology, Diabetes and Isotope Therapy													
Direct (contact) education		10			5								

¹ Education conducted with direct participation of university teachers or other academics

² Education with applied methods and techniques for distance learning



Distance learning																			
TOTAL per year:																			
Department of Endocrinology, Diabetes and Isotope Therapy																			
Direct (contact) education			10				5												
Distance learning																			
Educational objectives (max. 6 items) C1. Getting to know the current possibilities of diagnostics and isotope therapy and directions of development, also in relation to history C2. Understanding the indications and contraindications to perform tests with the use of isotopes in terms of the diagnostic process and limitations resulting from the nature of the tests (use of open sources of radiation). C3. Getting to know the recognized and applied isotope therapies; indications, contraindications and learning about the principles of radiation protection. C4. Acquiring knowledge and skills in the use of isotope methods in diagnostics and therapy. C5. Development social competences needed to practice the medical profession, in accordance with graduate's profile.																			
Education result for course in relation to verification methods of the intended education result and the type of class:																			
Number of detailed education result	Student who completes the course knows/is able to										Methods of verification of intended education results	Form of didactic class <i>*enter the abbreviation</i>							
F.W10.	Knows the issues surrounding the use of contemporary imaging examinations, in particular: <ol style="list-style-type: none"> 1. the radiological symptomatology of the principal diseases, 2. the instrumental methods and imaging techniques used to perform medical procedures, 3. the indications, contraindications and preparation of the patient for particular types of imaging examination and contraindications to the use of contrast agents 										Final MCQ test, assessment of the presentation	SE, CC							
F.U7.	Is able to assess the radiographic findings for the most common types of fracture, particularly long bone fractures										Assessment of work with the patient, assessment of the nuclear test description	SE, CC							
* L- lecture; SE- seminar; AC- auditorium classes; MC- major classes (non-clinical); CC- clinical classes; LC- laboratory classes; CSC- classes in simulated conditions; PCP- practical classes with patient; FLC- foreign language course; PE- physical education; VP- vocational practice; DSS- directed self-study; EL- E-learning																			
Student's amount of work (balance of ECTS points):																			
Student's workload (class participation, activity, preparation, etc.)										Student Workload									
1. Number of hours of direct contact:										15									
2. Number of hours of distance learning:										0									



3. Number of hours of student's own work:	5,5
4. Number of hours of directed self-study	n/d
Total student's workload	20,5
ECTS points for course	0,5
Content of classes: (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects)	
Lectures – not applicable	
Seminars	
<ol style="list-style-type: none"> 1. Basics of nuclear medicine (radioisotopes, radiation detection, principles of radiation protection, classical nuclear medicine and PET / CT). 2. The role of endocrine system scintigraphy. The isotopes treatment in endocrinology. Lymphoscintigraphy. 3. Diagnostics and treatment with isotopes of bones and joints (including cancer processes). Selected nuclear issues from cardiology, nephrology / urology. 	
Classes	
<ol style="list-style-type: none"> 1. Differences related to working with isotopes 2. Describing scintigraphic scans 3. Repetition on thyreology 4. Qualification of patients with benign thyroid diseases for treatment with radioactive iodine 5. Radiological protection of the patient / staff / bystanders 	
Other – not applicable	
Basic literature (list according to importance, no more than 3 items)	
<ol style="list-style-type: none"> 1. Bhargava P. Nuclear Medicine Handbook, e-book, https://books.apple.com/us/book/nuclear-medicine-handbook/id1474186897, 2019 2. Bailey DL, Humm JL et al. Nuclear Medicine Physics, IAEA, 2014, https://www-pub.iaea.org/MTCD/Publications/PDF/Pub1617web-1294055.pdf 	
Additional literature and other materials (no more than 3 items)	
<ol style="list-style-type: none"> 1. European Journal of Nuclear Medicine and Molecular Imaging 2. Frank J. Nuclear medicine for medical students and junior doctors, Charles University, Prague, 2009 http://195.113.48.240/vyuka/nuclear_medicine_jwfrank.pdf 	
Preliminary conditions: (minimum requirements to be met by the student before starting the course)	
Knowledge of: <ul style="list-style-type: none"> - hypothyroidism and hyperthyroidism; causes, symptoms and type of treatment - thyroid disease diagnostics (laboratory and imaging) - basics of radiological protection (especially in nuclear medicine) 	
Conditions to receive credit for the course: (specify the form and conditions of receiving credit for classes included in the course, admission terms to final theoretical or practical examination, its form and requirements to be met by the student to pass it and criteria for specific grades)	
<p>In the first class, there is an entrance test in the topics specified in the preliminary conditions.</p> <p>The prerequisite for passing the seminars is active attendance (preparation of a presentation) and passing a credit final test (see below). Absence from seminars requires justification and preparation of an essay on the topic assigned by the person responsible for the subject.</p> <p>The condition for passing the practical classes is active participation (evaluation of the student's work with the patient, evaluation of the description of the scintigraphic scan) and passing a credit final test. Absence from the classes requires justification and making up for the classes.</p> <p>Assessment takes place in direct contact with the teacher. In justified cases, by the Rector's decision, the course may be credited as a distance credit.</p> <p>The credit final test covers the content discussed in seminars and classes and in the literature provided. The credit final test is carried out in writing and is carried out in the manner specified in the Didactic Regulations of the Subject.</p>	



In the event of absence (also rector / dean days / hours), the group / subgroup have to contact the teacher in order to arrange (at the group's request) sampling hours, or students may prepare individual work (as part of self-study) on the subject of missed classes and discussing them individually at a time and form that is convenient for both parties.

The subject ends with a final test at the end of the VIII semester, details are specified in the Didactic Regulations of the Subject.

Grade:	Criteria for courses ending with a grade ³
Very Good (5.0)	96-100%
Good Above (4.5)	91-95%
Good (4.0)	81-90%
Satisfactory Plus (3.5)	71-80%
Satisfactory (3.0)	61-70%
	Criteria for courses ending with a credit ³ - not applicable
Credit	

Department in charge of the course:	Department of Endocrinology, Diabetes and Isotope Therapy
Department address:	Wybrzeże. L. Pasteura 4, 50-367 Wrocław
Telephone:	Tel. 71 784 25 45
E-Mail:	Office: elzbieta.szubart@umed.wroc.pl

Person in charge for the course:	Diana Jędrzejuk, MD, PhD
Telephone:	Tel. 71 784 25 65
E-Mail:	diana.jedrzejuk@umed.wroc.pl

List of persons conducting specific classes:

Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Diana Jędrzejuk	MD, PhD	Medical science	Academic teacher, nuclear medicine specialist, internal medicine specialist	CC
Joanna Syrycka	MD, PhD		Academic teacher, nuclear medicine specialist, internal medicine specialist	SE, CC

Date of Syllabus development

24.06.2021

Syllabus developed by

Diana Jędrzejuk, MD, PhD

Signature of Head(s) of teaching unit(s)

Dean's signature

Wrocław Medical University
Faculty of Medicine
Vice-Dean for English Studies

prof. Beata Smieszkańska, PhD

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kierownik

prof. dr hab. n.med. Marek Bojanowski

³ The verification must cover all education results, which are realized in all form of classes within the course