





Summer Semester													
Direct (contact) education													
Online learning (synchronous)													
Distance learning (asynchronous)													
<b>TOTAL per year:</b>													
Direct (contact) education		5											
Online learning (synchronous)		5											
Distance learning (asynchronous)													
Educational objectives (max. 6 items)													
C1. The basic knowledge of neoplastic pathology with selected elements of cytogenetic and molecular mechanisms													
C2. The basic knowledge of cancer immunology													
C3. Elementary information on cellular results of chemotherapy and radiotherapy													
<b>Education result matrix for module/course in relation to verification methods of the intended education result and the type of class</b>													
Number of course education result	Number of major education result	Student who completes the module/course knows/is able to	Methods of verification of intended education results (forming and summarising)	Form of didactic class <i>**enter the abbreviation</i>									
K 01	B.W17	A student knows the definition of genes expression in cancer pathology, defines intra- and extracellular conditions of cancerogenesis, describes the most significant cellular signal paths and metabolic differences of cancer cells. A students can defines the most important techniques in molecular and cytogenetic cancer diagnostics.	Presentation, oral response	SE, EL									
S 01	C.U3.	A student is able to make reasonable decisions on cytogenetic and molecular diagnostic, particularly in cancer conditions	Oral response	SE, EL									
** L - lecture; SE - seminar; AC – auditorium classes; MC – major classes (non-clinical); CC – clinical classes; LC – laboratory classes; SCM – specialist classes (magister studies); CSC – classes in simulated conditions; FLC – foreign language course; PCP practical classes with patient; PE – physical education (obligatory); VP – vocational practice; SS – self-study, EL – E-learning .													
Please mark on scale 1-5 how the above effects place your classes in the following categories: communication of knowledge, skills or forming attitudes: Knowledge: 5													
<b>Student's amount of work (balance of ECTS points)</b>													
<b>Student's workload</b> (class participation, activity, preparation, etc.)			<b>Student Workload (h)</b>										
1. Contact hours:			5										
2. Online learning hours (e-learning)			5										
3. Student's own work (self-study):			3										
Total student's workload			13										



ECTS points for module/course	0.5
Comments	
<b>Content of classes</b> (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects)	
<b>Seminars</b> 1. Cancer molecular basics, intracellular signal paths. Specificities of cancer cells metabolism, the significance of immunological surveillance in cancerogenesis; molecular differences of leukemias and lymphomas 2. Basic molecular and cytogenetic techniques in cancer diagnostics	
<b>Basic literature</b> (list according to importance, no more than 3 items) 1. Christoph Wagener et al. Cancer Signaling, Enhanced Edition: From Molecular Biology to Targeted Therapy. 2016 2. Rita Fior et al. Molecular and Cell Biology of Cancer. 2019	
<b>Didactic resources requirements</b> (e.g. laboratory, multimedia projector, other...) Multimedia projector, laptop, internet communication platforms	
<b>Preliminary conditions</b> (minimum requirements to be met by the student before starting the module/course) Elementary knowledge of cells biology: DNA replication and repair, transcription, point mutations	
<b>Conditions to receive credit for the course</b> (specify the form, criteria and conditions of receiving credit for classes included in the module/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). Each absence must be made up, including rector's days or dean's hours. The absence must be made up by attending to the same course with another group (if allowed) or, if impossible, by oral response (after making an appointment) Presence in all classes and oral responses are to be met together to receive credit for the course.	
<b>Grade:</b>	<b>Criteria for course</b>
Very Good (5.0)	achieving targeted education in all aspects, exceeding the topic coverage delivered by primary seminars; ability to fluently and creatively apply the acquired knowledge to explain complicated problems
Good Plus (4.5)	achieving targeted education in all important aspects, within the topic coverage delivered by primary seminars; ability to apply the acquired knowledge to explain complicated problems
Good (4.0)	achieving targeted education in all important aspects, within the topic coverage delivered by primary seminars; ability to apply the acquired knowledge to explain typical problems
Satisfactory Plus (3.5)	achieving targeted education in most important aspects, within the topic coverage delivered by primary seminars; ability to apply the core elements of acquired knowledge to explain typical problems



Satisfactory (3.0)	achieving targeted education in all basic aspects, with omission of important but not critical part of topics; ability to apply basic elements of acquired knowledge to explain simple problems
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<b>Name of unit teaching course:</b>	<b>Department of Cancer Prevention and Therapy</b>
Address	50-556 Wroclaw, ul. Borowska 213
Phone	71 734 40 00
E-mail	

<b>Person responsible for course:</b>	<b>Aleksandra Butrym, MD, PhD, Assist. Prof.</b>
Phone	71 736 40 00
E-mail	aleksandra.butrym@umed.wroc.pl

List of persons conducting specific classes:	degree/scientific or professional title	Discipline	Performer profession	Form of classes
Aleksandra Butrym	MD, PhD, assist. Prof.	hematooncology	MD, academic	SE
Jarosław Dybko	MD, PhD	hematooncology	MD, academic	SE

Date of Syllabus development

25.09.20

Syllabus developed by

Uniwersytet Medyczny we Wrocławiu  
ZAKŁAD PROFILAKTYKI I LECZENIA  
CHOROBY NOWOTWOROWYCH  
adiunkt dydaktyczny

Uniwersytet Medyczny we Wrocławiu  
ZAKŁAD PROFILAKTYKI I LECZENIA  
CHOROBY NOWOTWOROWYCH  
kierownik

Signature of Head of teaching unit

dr hab. Aleksandra Butrym, prof. nadzw.

Signature of Faculty Dean

Wroclaw Medical University  
Faculty of Medicine  
Vice-Dean for English Studies  
prof. Beata Spychalska, PhD