

					Syllab	us 201	19/202	0						
				De	escript	ion of	the cou	rse						
Module/Course				Techniques in Molecular Medicine – optional course					Group of detailed education results				on	
										Gro	up	Grou	p name	
										cod	e		itific Ba	sics
										В		l .	edicine	
										С			linical	
												scien	ces	
Faculty			Me	dicine								1		
Major			Me	Medicine										
Specialties			Not	applic	able									
Level of studies						er stud	ies X *							
				degree										
				degree										
				degree										
			1	_		udies 🛭								
Form of studies				ull-time		part-ti								
Year of studies			1					Se	meste	er	□Win	ter		
											X Sum			
Type of course			Obligatory											
			© limited choice											
			11			elective								
Course			□ m	najor X	basic						Ti			
Language of instruc	tion			□ Polish X English □ other										
* mark 🗇 with an i														
					Nur	nber o	f hours							
							ucation	)						
				cal				tient	ster	(FLC	atory		5	
			(AC)	Major Classes – not clinical (MC)		(LC)	D.	Practical Classes with Patient (PCP)	Specialist Classes – magister studies (SCM)	Foreign language Course (FLC)	Physical Education obligatory (PE)	Vocational Practice (VP)	Self-Study (Student's own work)	
Unit teaching the			asses	- S	CC) sa	asses	oulate SC)	ses w	sses –	age (	atton	actice	nden	_
course:	Ξ.	s (SE)	p un	9886	Jasse	ory Cl	n Sirr ins (C	Class	t Clas	angn	Educ	nal Pr	dy (St	JB (EL
	Lectures (L)	Seminars	Auditorium classes (AC)	jor d	Clinical Classes (CC)	Laboratory Classes (LC)	Classes in Simulated Conditions (CSC)	Practical (PCP)	Specialist Clas studies (SCM)	eign	/stcal	ration	Self-Stud work)	E-learning (EL)
	Lec	Ser	Au	Majo (MC)	ੋਂ	Lab	C G	Pra (PC	Spe	For	Phys (PE)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Sel	Ele
Winter Semester														
Summer Semester	-				-	1	-			4			4	
Molecular					i	20				T	I	1	6	
Techniques Unit														
TOTAL per year:				-				1		1			-	
TOTAL per year:														



20	6

Educational objectives (max. 6 items)

- C1. Mastering the basic techniques of molecular medicine by the student
- C2. Orientation in various issues and techniques of molecular medicine
- C3. Learning basic techniques of genetic material visualization in agarose gel electrophoresis.

## Education result matrix for module/course in relation to verification methods of the intended education result and the type of class

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  **enter the abbreviation
W01	B.W13.	- knows the function of nucleotides in cell, I- and II- dary structures of DNA and RNA	Essay, discussion	LC, SK
	B.W14.	- knows the function of genome, transcriptome and proteome of human body and basic methods used for its study		
	C.W1.	- knows the basic concepts of genetic		
	C.W9.	- knows the basic methods for genomic mutation diagnosis		
U01	B.U9.	- uses basic laboratory techniques such as: qualitative analysis, nucleic acids electrophoresis	Essay, discussion	LC, SK
	B.U10.	- supports simple measuring instruments and evaluates the accuracy of measurements		
	B.U11,	uses databases, including web databases, and searches for the necessary information using the available tools		
	B.U14.	- plans and performs simple research and interprets its results and draws conclusions.		

<sup>\*\*</sup> 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 Skills: 4

Student's amount of work (balance of ECTS points)

Stadent Santount of Work (Balance of Lens points)	
Student's workload	Student Workload (h)
(class participation, activity, preparation, etc.)	

		of 30 March 2016
1. Contact hours:		20
2. Student's own work (self-	study):	6
Total student's workload		26
ECTS points for module/cour	se	1
Comments		
Content of classes (please er	nter topic words of specific classes c	livided into their didactic form and remember how it is
translated to intended educationa		
Lectures		
1.		
2.		
3.		
Seminars		
1		
2.		
3.		
Practical classes		
papers. Class II: Isolation of bloodstain using a C Class III: Total RNA is Class IV: PCR and its Class V: RFLP that is hemochromatosis d Class VI: ELECTROPH exercises. Database searching for the DN	DNA from lymphocytes using Chelex method. solation on-column method. application in the example of PCR and RESTRICTION ENZY liagnosis. HORESIS: Agarose gel electrop	Preparing of stains from saliva on the tissue phenol-based method. DNA extraction from The reaction of reverse transcription. If detection of polymorphisms in the CCR5 gene MES: Restriction enzymes in the example of phoresis of products obtained in during previou information about genes, what we can find,
1.		
2.		
3.		
etc		
Basic literature (list accordin	ng to importance, no more th	an 3 items)
		nstant Notes in Molecular Biology. Published by
Springer-Verlag (1997-0	•	
	Garland Science Publishing, 2	
	ner materials (no more than 3	items)
1.		
2.		
3.		
Didactic resources requirem	ents (e.g. laboratory, multim	edia projector, other)

The laboratory is equipped with a lot of thermocyclers, centrifuges, thermomixer and of course the multimedia projector.

Preliminary conditions (minimum requirements to be met by the student before starting the module/course)

Sign up for the list. Basic knowledge of genetic

## Conditions to receive credit for the course:

Each absence must be made up, including rector's days or dean's hours.

To receive credit for the course student is obligated to be present at 100% of classes or any absence must be made up by preparing assay discussing the topic chosen by the student.

The course is ended by a one-choice test. The mark received at the end of the course will be estimated based on a number of positive answers as presented in the table below.

Grade:	Criteria for course	
Very Good (5.0)	100%-93%	
Good Plus (4.5)	92,9%-85%	
Good (4.0)	87,9%-78%	
Satisfactory Plus (3.5)	77,9%-70%	
Satisfactory (3.0)	69,9%-60%	

Grade:	Criteria for exam (if applicable)
Very Good (5.0)	
Good Plus (4.5)	
Good (4.0)	
Satisfactory Plus (3.5)	
Satisfactory (3.0)	



Name of unit teaching course:	Molecular Techniques Unit
Address	Ul. M. Skłodowskiej-Curie 52
Phone	71 478-15-88
E-mail	anna.karpiewska@umed.wroc.pl

Person responsible for	Dr Malgorzata Małodobra-Mazur	
course:	Di Maigorda Maiotobra Madar	
Phone	71 784-15-95	
E-mail	malgorzata.malodobra-mazur@umed.wroc.pl	

List of persons conducting specific classes:	degree/scientific or professional title	Discipline	Performer profession	Form of classes
Małgorzata Małodobra- Mazur	Dr	Molecular biology	Medicine laboratory	Laboratory classes

Date of Syllabus development

Syllabus developed by

02.07.2019

Dr Małgorzata Małodobra-Mazur

Signature of Head of teaching unit

Uniwersytet Medyczny we Wrocławiu Katedra Medycyny Sądowej ZAKLAD TECHNIK MOŁEKULARNYCH kierownik

prof. dr hab. Tadeusz Dobosz

Signature of Faculty Gual University
FACUATO IF MEDICINE
VICE-DEAN FOR TROPIES WEI

Prof. Andrzej Hendrich, Pho

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