Appendix
to Resolution No. 2186
of Senate of Wroclaw Medical University
of 1 July 2020

Syllabus for academic year: 2020/2021…… Training cycle: …2019-2025……			
Description of the course			
Module/Course	IMMUNOLOGY	Group of detailed education results	
		Group code C	Group name **Before clinical**
Faculty	Medicine and Dentistry		
Major	Medicine		
Unit realizing the subject	Immunopathology and Molecular Biology		
Specialties	Dentistry		
Level of studies	Uniform magister studies □* 1st degree studies X 2nd degree studies □ 3rd degree studies □ postgraduate studies □		
Form of studies	X full-time □ part-time		
Year of studies	II	Semester	□ Winter X Summer
Type of course	X obligatory □ limited choice □ free choice / elective		
Course	X major □ basic		
Language of instruction	□ Polish X English □ other		
* mark □ with an X			

Number of hours														
Form of education														
Unit teaching the course	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)	Specialist Classes – magister studies (SCM)	Foreign language Course (FLC)	Physical Education obligatory (PE)	Vocational Practice (VP)	Self-Study (Student's own work)	E-learning (EL)
Winter Semester														
Direct (contact) education														
Online learning (synchronous)														

Distance learning (asynchronous)														
Summer Semester														
Direct (contact) education				15										
Online learning (synchronous)				15										
Online learning (asynchronous)														
TOTAL per year:														
Direct (contact) education														
Online learning (synchronous)														
Online learning (asynchronous)														

Educational objectives (max. 6 items)

C1. . The aim of the teaching is presentation and explanation of basic topics from immunology including: ontogenesis of the immune system.

C2. Explain the role of antigens and humoral antibodies in innate and adoptive immune response.

C3 Describe the regulation of the immune response, the goals of immunotherapy and immunomodulation.

C4. Explain the role of hypersensitivity and pathomechanisms of autoimmune disease and primary and secondary immunodeficiency.

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*
W 01	C.W7	, the student: describes the structures of immunological system;	test consisting of 30 questions, oral presentation prepared by student on immunological topic	MC, EL, SS
W 02	C.W8	defines the innate and adoptive immunity, know mechanisms of hypersensitivity and autoimmunity;,		
W 03	C.W10	explains the rules of immunomodulation and immunodiagnostic possibilities		
W 04	C.W11	describes pathomechanisms of allergic and autoimmune diseases,		

W 05 W 06 W 07 W 08	C.W12 C.W13 C.W14 C.W16	primary and secondary immunodeficiency; describe the parameters of immunological defects; explains pathomechanism of autoagressive disease and clinical symptoms; explains pathomechanism of autoagressive disease and clinical symptoms; associated with non-specific immunological response; defines immunological factors in transplantation		
U 01 U 02 U 03	C.U2 C.U3 C.U4	student uses immunological test to resolves diagnostic problem in immunological diseases the student performed immunoenzymatic test and explain different immunological results associated with activity of immune system resolves the doutds concern risk of dysfunction of immunological system led to development of disease		
K 01	K01	the student is able to cooperate in the group during the laboratory practice - knows how to prepare an oral seminar presentation - can present immunological topic chosen by himself during seminar		

		- is able to collect references for immunological topics.		

** 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
Social competences: …5..

Student's amount of work (balance of ECTS points)	
Student's workload (class participation, activity, preparation, etc.)	Student Workload (h)
1. Contact hours:	15
2. Online learning hours (e-learning):	15
3. Student's own work (self-study):	40
Total student's workload	70
ECTS points for module/course	2
Comments	

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
1.
2.
3.

Seminars
1.
2.
3.

Practical classes
1. Development of immune system. Components of immunological system.
2.Immunoglobulins – role in immunological response , monoclonal antibodies
3. Innate immune response.
4.Adoptive immune response, antigen presentation. Relation between innate and adoptive response.
5.Regulation of immunological response. Cellular and humoral factors of regulation.
6. Immunomodulation (activation, suppression) of immunological response.
7.Immunological tolerance.
8.Autoimmunity and autoimmune disease
9. Hypersensitivity (types I, II, III, IV).

10. Immunological response to infection. The role of immunological protection against infection.
11.The role of immunological mechanisms in transplantation and inflammatory processes..
12.Immunopathology. Immunological protection against cancer development.
13. Immunological aspect of oral cancer development and progression.

Other
1.
2.
3.
etc. …

Basic literature (list according to importance, no more than 3 items)
1. D.Male, J. Brostoff, D.B. Roth. I. Roitt. „Immunology"-2016 year
2. J.K. Actor." Immunology and microbiology. 2015 year
2.
3.

Additional literature and other materials (no more than 3 items)
1. . John B. Zabriskie . Essential Clinical Immunology. Cambrige University Press 2012 year.
2.
3.

Didactic resources requirements (e.g. laboratory, multimedia projector, other…)
multimedia projector

Preliminary conditions (minimum requirements to be met by the student before starting the module/course) Basic knowledge from biology, pathophysiology

Conditions to receive credit for the course (specify the form 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 med by the student to pass it and criteria for specific grades)
Oral presentation – topic from immunology graded as follow: form 0 to 12 points
Passed the text

Grade:	**Criteria** (only for courses/modules ending with an examination)
Very Good	

(5.0)	
Good Plus (4.5)	
Good (4.0)	
Satisfactory Plus (3.5)	
Satisfactory (3.0)	
	Criteria (only for courses/modules ending with e credit)
Credit	**Test consisting of 30 questions**

Grade:	**Criteria** (examination evaluation criteria)
Very Good (5.0)	
Good Plus (4.5)	
Good (4.0)	
Satisfactory Plus (3.5)	
Satisfactory (3.0)	
Unit realizing the subject	**Immunopathology and Molecular Biology**
Unit address	**Street. Bujwida 44 , 50 343 Wrocław**
Telephone	**697 770 614**
E-Mail	**julia.bar@umed.wroc.pl**

Person responsible for module	**Julia Bar**
Coordinator	**Julia bar**
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List of persons conducting specific classes

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Full name	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Julia Bar	Prof. dr hab.	Medicine	Teacher	Practical classes
Piotr Cierpikowski	Dr	Medicine	Dentist	Practical classes

Date of Syllabus development

September 24, 2020 r

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Syllabus developed by

Julia Bar…….

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Signature of Head of teaching unit

Prof. dr hab. Julia Bar……

Signature of Faculty Dean

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