Appendix No.3
to Resolution No. 2303
of Senate of Wroclaw Medical University
of 28 April 2021

Syllabus for academic year: 2021/2022 Training cycle: 2020/2026			
Description of the course			
Course	IMMUNOLOGY	Group of detailed education results Group code C	Group name PRECLINICAL SCIENCES
Faculty	Dentistry		
Major	dentistry		
Level of studies	X uniform magister studies		
Form of studies	X full-time		
Year of studies	II	Semester:	X summer
Type of course	X obligatory		
Language of study	X 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)
Summer semester:													
Department of Immunopathology and Molecular Biology (Unit realizing the course)													
Direct (contact) education				30									
Distance learning													
TOTAL per year:													

Educational objectives (max. 6 items)

C1. Explaining of the mechanisms involved in the ontogenesis and functioning of the immune system.
C2. Explaining of innate and adaptive immune responses, including mechanisms of cellular and humoral immune responses.
C3. Explaining of he importance of immunomodulation of the immune system; activation, immunosuppression.
C4. Explanation of pathological and autoimmune changes of immunological system including allergic and autoimmune diseases.
C5. Overview of the principles of immunodiagnostics.

C6. Explanation of primary and secondary immune deficiencies.

Education result for course in relation to verification methods of the intended education result and the type of class:

Number of deteiled education result	Student who completes the course knows/is able to	Methods of verification of intended education results	Form of didactic class **enter the abbreviation*
C.W.7.	Knows the structure of the immune system and its role;		
C.W.8.	Knows the hormonal and cellular mechanisms of innate and acquired immunity and the mechanisms of hypersensitivity reactions and autoimmune processes;	test consisting of 30 questions, oral presentation prepared by student on immunological topic	MC
C.W.10.	knows the basics of immunodiagnostics and immunomodulation;		
C.W.11.	understands the pathomechanism of allergic diseases, selected hypersensitivity diseases, autoimmune diseases and immunodeficiencies;		
C.W.30.	Knows the mechanisms which lead to organ and systemic pathologies, including infectious, invasive, autoimmune, immunodeficiency, metabolic and genetic diseases;		
C.U.4.	can predict and explain complex pathomechanisms of disorders that lead to the onset of diseases;	evaluation of the presentation given by the student and discussion	MC
C.U.7.	can identify pathological changes caused by HIV infection and observed in patients with acquired immunodeficiency syndrome (AIDS);		
K 8.	It is ready to: use objective sources of information;	assessment of student attitudes	MC
K.9.	formulating conclusions from own measurements or observations;		

* 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:	30
2. Number of hours of distance learning:	
3. Number of hours of student's own work:	20
4. Number of hours of directed self-study	
Total student's workload	50

ECTS points for course	2,5

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)

Classes

1. Discussion of the ontogenesis of the immune system
2. The role of innate and acquired immune responses. Cellular and humoral type of response; differences and similarities
3. The importance of immunomodulation of the immune system.
4. Possibilities of regulation the immune system.
5. Types of hypersensitivity, allergies as a result of an unfavorable immune response.
6. Autoimmune diseases - pathomechanism; immunological diagnostics. Autoimmune diseases and the condition of the oral cavity.
7. Infection immunology. The role of defense mechanisms in oral infections.
8. The role of preventive and therapeutic vaccinations. Immunotherapy - possible applications.
9. Primary and secondary immune deficiencies.
10. The role of immunological defense mechanisms in neoplastic diseases.
11. Detection of antigens on the surface of cells and tissues - immunodiagnostics.

Basic literature

1. Immunology / David Male, R. Stokes Peebles, Victoria Male ; contributors Gregory J. Bancroft . - 9th edition. - : Elsevier, © 2021.
2. Basic immunology : functions and disorders of the immune system / Abul K. Abbas, Andrew H. Lichtman, Shiv Pillai ; illustrations by David L. Baker and Alexandra Baker. - 5th ed. - St. Louis : Elsevier Saunders, cop. 2016.

Additional literature and other materials

1. Roitt's essential immunology / Peter J. Delves [et al.]. - 11th ed. - Malden ; Oxford : Blackwell Publishing Ltd., cop. 2006

Preliminary conditions:

Basic knowledge from molecular biology and basic genetics

Conditions to receive credit for the course: Oral presentation on chose topic from immunology graded as follow: form 0 to 12 points
Passed the text

	Criteria for courses ending with a credit
Credit	**Test consisting of 30 questions. The student should obtain 70% of positive answers from the test**

Unit realizing the course:	Immunopathology and Molecular Biology
Unit address:	Street Bujwida 44 , 50 343 Wrocław
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E-Mail:	julia.bar@umed.wroc.pl

Person responsible for the course:	Prof. dr hab. Julia Bar

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List of persons conducting specific classes:

Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Julia Bar	Prof. dr hab.	Medical science	Teacher	Classes
Michał Jeleń	Prof. dr hab	Medical science	Teacher	Classes

Date of Syllabus development

18.06.2021

Syllabus developed by

Prof. dr hab Julia Bar

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

Julia Bar

Dean's signature

Uniwersytet Medyczny we Wrocławiu
WYDZIAŁ
LEKARSKO-STOMATOLOGICZNY
DZIEKAN

prof. dr hab. Marcin Mikulewicz