

SYLLABUS 2020/2021

Name of a course/module	Immunology																	
Faculty of	Medicine with Division of Dentistry and Division of Medical Education in English																	
Name of a field of study	Medicine																	
Level of education	Uniform Master's Degree in Medicine																	
Form of study	Full time																	
Language of instruction	English																	
Type of course	obligatory						facultative											
Year of study/Semester	I	II	III	IV	V	VI	1	2	3	4	5	6	7	8	9	10	11	12
Number of teaching hours specified according to contact type	Total: 60; including: 20 lectures and 40 classes																	
Principles and aims of the subject	<p>Student should acquire the knowledge in:</p> <ul style="list-style-type: none"> • structure and function of the immune system • innate and adaptive immunity • structure and function of Major Histocompatibility Complex • immunologic tolerance and autoimmunity diseases • hypersensitivity reactions • tumor immunology • neonate and children immunity • immunity to infections, vaccination • primary and acquired immunodeficiency diseases • immunosenescence <p>Student should be able to:</p> <ul style="list-style-type: none"> • plan and interpret immunological tests used in diagnostics of autoimmunity diseases, allergic diseases, leukemias and lymphomas, primary and acquired immunodeficiencies, make an arrangement of immunomodulating treatment scheme 																	

Symbol of education outcomes in accordance with the standards	Description of directional effects of education	Methods of verification of achieved learning outcomes
	Knowledge (according to the detailed education outcomes)	
C.W6	genetic background of human blood groups and serologic incompatibility of Rh blood group system	Student should have a theoretical basic knowledge of the current subject (based on the lectures and obligatory textbook) prior to the class. Evaluation of the activity in the classroom, discussion in the class, case description.
C.W20	the basic mechanisms of development and function of the immune system including specific and nonspecific mechanisms of the cellular and humoral immunity	
C.W21	the Major Histocompatibility Complex	
C.W22	the types of hypersensitivity reactions, types of immunodeficiencies and essentials of immunomodulation	
C.W23	the basics of tumor immunity	
C.W24	the genetic essentials for donor-recipient matching and basic principles of transplantation immunology	
C.W26.	the basic mechanisms of cell and tissue damage	
C.W27.	the immune pathomechanism of specific and nonspecific inflammation and describe the regeneration processes of organs and tissues	
	Skills (according to the detailed education outcomes)	
C.U8.	Uses the antigen-antibody reaction in contemporary modifications and diagnostic techniques for infectious diseases, allergic diseases, autoimmune diseases, blood diseases and neoplasm.	During every class Student's skills are evaluated through discussion and case studies
	Interprets the results of immunological tests and identifies causes of differences.	
	Social competence (according to the general education outcomes)	
K1	He/She recognizes his/her own diagnostic and therapeutic limitations, educational needs, planning of educational activity.	Continuous assessment by the teacher
K2	He/She is able to work in a team of professionals, in a multicultural and multinational environment.	
K3	He/She implements the principles of professional camaraderie and cooperation with representatives of other professionals in the range of health care.	

K4	He/She observes doctor-patient privilege; and patient rights.	
----	---	--

ECTS points	3.5	
Student Workload		
Form of Activity	Number of hours to complete the activity	
Activities that require the participation of (academic) teacher		
1. Realization of the course: lecture	20	
1. Realization on of the course: seminar		
1. Realization of the course: classes	40	
1. Exam		
1. Electives		
	total of hours	60
Self-study:		
1. Preparation for classes	10	
1. Preparation for credits/ tests	10	
1. Preparation for the exam/ final test	20	
	total of hours	40

Course contents	
Topics	Form (lectures, classes etc....)
Lectures (x 2h)	
What is immunology? History of immunology	Lecture
The structure of the immune system. The central and the peripheral immune organs	Lecture
Development of the immune system	Lecture
Adoptive and innate immunity – organs and cells	Lecture

The differentiation between „self” and „non-self”.	Lecture
Immunoglobulins	Lecture
Immunologic tolerance	Lecture
Autoimmunity – loss of the tolerance.	Lecture
Immunity to tumors	Lecture
Primary immunodeficiencies part I	Lecture
Primary immunodeficiencies part II	Lecture
Secondary immunodeficiencies	Lecture
Neuropsychimmunology	Lecture
Immunosenescence	Lecture
Immunotherapy	Lecture
Classes (x 3h)	
Congenital immunodeficiencies: phagocytes defects	Class
Congenital immunodeficiencies: complement defects	Class
Congenital immunodeficiencies: defects in development and activation of B cells	Class
The role of MHC antigens in the immune response	Class
Autoimmunity diagnosis	Class
Allergy diagnosis	Class
Lymphomas and leukemias	Class
Serologic incompatibility	Class
Transplantation immunology	Class
PID diagnosis	Class
Morphology of the immune system cells	Class
Diagnostics – immunoglobulins	Class
Diagnostics – flow cytometry	Class
Diagnostics – serologic incompatibility	Class
Diagnostics - phagocytosis	Class
Diagnostics – complement	Class
Inflammation	Class
Allergological tests	Class
Case report	Class
Case report	Class

A list of recommended and optional books

The obligatory book for obtaining a basic knowledge of a subject:

Basic Immunology: Functions and Disorders of the Immune System

Abul K. Abbas , Andrew H. Lichtman , Shiv Pillai, 5 th or 6th Revised edition

- Cellular and Molecular Immunology 7th or 8th Edition. Saunders; A. K. Abbas, A.H. Lichtman, S. Pillai

The optional books

- 'Immunology' Male D., Brostoff J, Roitt J; 8th Edition, Elsevier Saunders

Conditions for receiving credit

Students have to redo/get credit for any materials during the classes he/she was absent on. It has to be done the latest 1 day before the scheduled partial test during consultation hours.

Significant engagement and knowledge during classes might be awarded with bonus points for activity, which might improve final score obtained during partial test.

PARTIAL TESTS

To participate in partial test(s) students are obliged to be present at all classes (in case of absence students are obliged to redo the classes before planned partial test).

Not excused absence on classes is considered as not passed and results in no ability of participating in the partial test (getting credit).

In case(s) of absence(s) student should provide official physician certificate of inability to perform student activities (in case of illness) or official Dean's note (in every other case) to the course coordinator within the 3 working days from the last day of an absence.

In all cases of an excused absence on the first date of the partial test, the second term is scored as the first one. However, in such situation student will have only one chance to retake the test at the of semester (final retake).

The non-excused absence on partial test/retake test results in negative score (0 points).

Partial test will have 30 multiple choice or open questions covering the knowledge from given lectures, classes and recommended books.

Students will be scored positive when they receive at least 60% from the test (at least 18 points).

All partial test will have maximum 2 retakes. The first retake of every test (necessary when the student will be scored below 18 points) will be held one week after the first term. The final retake (second retake of the partial tests) will be held at the end of semester in the same term for all partial tests.

Besides given dates of getting partial credits no additional terms are envisioned.

Non-excused absence during partial test will result in 0 (zero) point score.

If student won't pass at least one of the partial tests (or retakes) it results in no getting credit from Immunology course.

Obtaining positive results (score at least of 60% = at least 18 points) from all partial tests (or retakes) is an obligatory condition for go in for the final exam.

EXAM

The exam will consist of 50 multiple choice or open questions covering the knowledge from given immunology course activities and recommended books.

The condition of passing the exam is scoring more than 60% (at least 31 points).

Students who obtained 46 and more points (summarized from all 2 partial tests passed in the first official term) will obtain additional 3 points added to total result of exam passed in the first official term. The obligatory condition required for such bonus is scoring at least 31 points during first official term of the exam. Total score of exam and bonus points will not exceed 50 points.

An absence on the exam should be excused at the latest in 3 working days after the test [official physician certificate of inability to perform student activities (in case of illness) or official Dean's note (in every other case)].

In special cases official physician certificate of inability to perform student activities (in case of illness) or official Dean's note (in every other case) should be delivered within the 14 days from the last day of an absence.

Non-excused absence will be treated as the negative result from the exam (0 points).

The students who scored totally over at least 84% will be exempted from the exam with score "very good".

Exam scores:

- | | |
|-------------------|-------------------------|
| 1. very good | 5,0 (47-50 points) |
| 2. more than good | 4,5 (43-46 points) |
| 3. good | 4,0 (39-42 points) |
| 4. fairly good | 3,5 (35-38 points) |
| 5. satisfactory | 3,0 (31-34 points) |
| 6. failed | 2,0 (30 points or less) |

Date of issue:		Course coordinator and the head of the department where the course is held	<i>Prof. dr hab. n. med. Anna Stasiak-Barmuta</i>
----------------	--	--	---