

Course description

Informacje ogólne o przedmiocie / General information about the course		
1. Major of study: medicine	2. Study level: unified MSc	
	3. Form of study: intramural	
4. Year: III	5. Semester: VI	
6. Course name: Immunology		
7. Course status: required		
8. Course contents nad assigned learning outcomes Antigens, antibodies, structure and meaning of the immune system. Cellular and humoral basics of immunity. Major histocompatibility complex. Specific and non-specific mechanisms of cellular and humoral immunity. Cytokines: division, basic properties and therapeutic application. Structure, properties of antibodies and their diversity. Immunoglobulin preparations, monoclonal antibodies and their use. Complement - activation pathways, biological functions. Acute phase proteins. Populations, subpopulations of lymphocytes: T, B, NK and their markers. Phagocytosis - types and its biological role. Functions of macrophages and granulocytes. Hypersensitivity. Autoimmune diseases. Immunodeficiency. Anti-infectious immunity. Tumor immunity. Transplantation immunology. Immunohematology. Collection and transmission of materials for immunological tests. Pre-transfusion and pre-transplant tests. Basics of blood selection for transfusion and transplanted organs. Maternal-fetal serological conflict. Evaluation of the functioning of humoral and cellular immunity. Learning outcomes / reference to learning outcomes indicated in the standards For knowledge – student knows and understands: C.W6 C.W21, C.W22, C.W23, C.W24, C.W25 For skills student can do: C.U8 For social competencies student is ready to: II 3C, II 3		
9. Number of hours for the course		60
10. Number of ECTS points for the course		4
11. Methods of verification and evaluation of learning outcomes		
Learning outcomes	Methods of verification	Methods of evaluation*
Knowledge 1. knows the inheritance of human blood groups and immunological pathomechanism of serological conflict mother – fetus C.W6. 2. knows the basics of development and mechanisms of the immune system; including specific and non-specific mechanisms of humoral and cellular immunity C.W21. 3. describes the major histocompatibility complex C.W22.	Grade credit – MCQ Grade credit – MCQ (2 middle exams during semester)	** Very good (5,0) – the assumed learning outcomes have been achieved and significantly exceed the required level Better than good (4,5) – the assumed learning outcomes have been achieved and slightly exceed the required level Good (4,0) – the assumed learning outcomes have been achieved at the required level Better than satisfactory (3,5) – the assumed learning outcomes have been achieved at the average required level Satisfactory (3,0) – the assumed learning outcomes

<p>4. knows the types of hypersensitivity reactions, types of immunodeficiency and the basics of immunomodulation C.W23.</p> <p>5. knows the issues of tumor immunology C.W24.</p> <p>6. defines the genetic basis for the selection of a donor and recipient and the basics of transplant immunology C.W25.</p> <p>7. knows the mechanisms of cell and tissue damage C.W27.</p>		<p>have been achieved at the minimum required level Unsatisfactory (2,0) – the assumed learning outcomes have not been achieved</p>
<p>Skills uses the antigen-antibody reaction in current modifications and techniques for diagnostics of infectious, allergic, autoimmune diseases, tumors and blood diseases C.U8.</p>	<p>Report Observation Practical exam</p> <p>Observation and *Practical Exam (on the end of lab. classes)</p>	<p>* Passing/or not</p>
<p>Competencies 1. student understands and recognizes the need to respect medical confidentiality, patient rights and is aware of its own limitations and the need for continuous training</p>	<p>Observation</p>	<p>* Observation</p>

* The following evaluation system has been assumed:

Very good (5,0) – the assumed learning outcomes have been achieved and significantly exceed the required level

Better than good (4,5) – the assumed learning outcomes have been achieved and slightly exceed the required level

Good (4,0) – the assumed learning outcomes have been achieved at the required level

Better than satisfactory (3,5) – the assumed learning outcomes have been achieved at the average required level

Satisfactory (3,0) – the assumed learning outcomes have been achieved at the minimum required level

Unsatisfactory (2,0) – the assumed learning outcomes have not been achieved