



Syllabus for the academic year 2026/27 Cycle 2025/26			
Course description			
Course	Immunologia kliniczna	Group of detailed learning outcomes	
	Clinical Immunology	Group of classes (group code) C, E	Group name Pre-clinical sciences Non-interventional clinical sciences
Course completion	Winter semester		Summer semester
	graded pass, exam		
Faculty	Faculty of Medicine		
Degree Programme	Medicine		
Level	Uniform Master Studies		
Form	full-time		
Year	2	Semester	winter
Type of course	mandatory		
Language of instruction	English		

Number of hours per type of class and per organisational unit													
Type of classes													
	Lectures (LE)	Seminars (SEM)	Auditorium classes (AUD)	Non-clinical classes (nCLN)	Clinical classes (CLN)	Laboratory classes (LAB)	Simulation-based classes (SIM)	Practical Patient Care classes (PPCC)	Foreign Language Course (FLC)	Physical Education (PE)	Practical Training (PT)	Self-directed learning (SL)	E-learning (EL)
Winter semester – number of hours per type of class and per organisational unit													
	LE	SEM	AUD	nCLN	CLN	LAB	SIM	PPCC	FLC	PE	PT	SL	EL
Katedra i Zakład Immunologii Klinicznej	20	6		44									
Hours of in-person, on-campus learning		6		44									
Hours of in-person learning using remote learning methods and techniques (synchronous)	20												
TOTAL for the year – number of hours per type of class and per organisational unit													
	LE	SEM	AUD	nCLN	CLN	LAB	SIM	PPCC	FLC	PE	PT	SL	EL
Katedra i Zakład Immunologii Klinicznej	20	6		44									

Hours of in-person, on-campus learning		6		44									
Hours of in-person learning using remote learning methods and techniques (synchronous)	20												

Student workload (ECTS points balance)		
Type of student workload (class attendance, preparation for classes, etc.)	Number of hours	Number of ECTS points
1. In-person, on campus learning	50	2.3
2. In-person learning using remote learning methods and techniques (synchronous)	20	1
3. Asynchronous learning using remote learning methods and techniques (e-learning)	0	0
4. Self-directed learning (applies only to nursing and midwifery)	0	0
5. Student independent learning	59	2.7
6. Practical Training	0	0
Total student workload	129	6
INDICATORS		
1. Total student workload for in-person learning	70	3.3
2. Total student workload for learning using remote learning methods and techniques	20	1

Learning objectives
O1. Development of social competences aligned with the learning outcomes for the course.
O2. Gaining knowledge about the basics of development and how the immune system works, the components of immune responses, the features of innate and specific humoral and cellular immunity, the role of the main histocompatibility complex, and the regulation of the immune response.
O3. Acquiring knowledge about types of hypersensitivity reactions, the pathomechanism of hypersensitivity diseases (allergic and autoimmune diseases), and developing the ability to use knowledge in the field of immunomodulation.
O4. Gaining knowledge about the basics of tumor immunology as well as the immunological aspects of transplantation and the principles of selecting a donor and a transplant recipient.
O5. Acquiring knowledge about primary and secondary immune deficiencies and the principles and forms of immunotherapy.
O6. Acquiring the skill to plan diagnostics for diseases with an immunological background and developing the ability to interpret lab test results in connection with the clinical symptoms of the disease and patient history.

Course learning outcomes aligned with methods of assessment of the intended learning outcomes and the type of classes			
Number of detailed learning outcome	At the end of the course, each student will know/ will understand/will be able to/ will be ready to	Methods of assessing achievement of the intended learning outcomes	Type of classes*
C.W16.	diagnostic principles for infectious, allergic, autoimmune, and neoplastic diseases and blood diseases, based on the antigen-antibody reaction;	oral answer, MCQ test	LE, nCLN
C.W18.	innate and acquired mechanisms of humoral and cellular immunity;	oral answer, MCQ test	LE, nCLN
C.W19.	major tissue compatibility system;	oral answer, MCQ test	LE, nCLN

C.W20.	types of hypersensitivity reactions, types of immunodeficiencies, and the basics of immunomodulation;	oral answer, MCQ test	LE, nCLN
C.W21.	issues in the immunology of cancer and diseases of immunological origin and principles of immunotherapy;	oral answer, MCQ test, seminar presentation	SEM, LE, nCLN
C.W22.	genetic basis of donor and recipients selection and basics of transplantation immunology;	oral answer, MCQ test	LE, nCLN
C.W23.	the clinical course of innate and acquired immune response and tissue and organ regeneration processes;	oral answer, MCQ test	LE, nCLN
C.W33.	options and types of biological, cellular, gene, and targeted therapies for specific diseases;	oral answer, MCQ test, seminar presentation	LE, SEM, nCLN
E.W24.	issues in oncology, including: 1) genetic, environmental, and epidemiological conditions, causes, symptoms, principles of diagnosis and therapeutic management of the most common cancers and their complications; 2) the most common paraneoplastic syndromes and their clinical manifestations; 3) basics of early cancer detection, principles of screening, and preventive measures in oncology; 4) possibilities and limitations of modern cancer treatment (surgical methods, radiotherapy, and systemic methods, including immunotherapy), indications for cell and gene therapies, and targeted and personalised treatment; 5) early and late complications of oncological treatment; 6) the role of supportive treatment, including nutrition; 7) principles for organising cancer care, including genetic counselling and multidisciplinary care; 8) practical aspects of statistics in oncology, including principles for the interpretation of clinical trial results; 9) the main scales and classifications used in oncology; 10) principles of targeted adult breast and prostate physical examinations; 11) principles of planning the diagnostic, therapeutic, and preventive management of cancer based on test results and medical records provided;	oral answer, MCQ test, seminar presentation	LE, SEM, nCLN
E.W40.	opportunities and limitations of laboratory tests;	oral answer, MCQ test, seminar presentation	nCLN, SEM, LE
C.U7.	relate images of tissue and organ damage to clinical signs of disease, history, and laboratory findings to establish a diagnosis in the most common diseases of adults and children;	oral answer, MCQ test, observation of task performance	nCLN, SEM
K.6	promote healthy behaviour;	oral answer, seminar presentation	SEM, nCLN
K.7	use objective sources of information;	oral answer, seminar presentation	SEM, nCLN
* LE – Lectures, SEM – Seminars, AUD – Auditorium classes, nCLN – Non-clinical classes, CLN – Clinical classes, LAB – Laboratory classes, SIM – Simulation-based classes, PPCC – Practical Patient Care classes, FLC – Foreign Language Course, PE – Physical Education, SL – Self-directed learning, EL – E-learning			

Course content and topic outline

Lectures

1. Human immune system. Why modern doctor should know the basics of immunology?
2. Non-specific immunity - cellular and humoral.
3. Specific immunity (adaptive). The major histocompatibility complex HLA.
4. The anti-infectious response. Vaccines.
5. Primary and secondary immune deficiencies.

6. The mechanisms of the immune response regulation. The role of cytokines.
7. Hypersensitivity classification. The immune tolerance.
8. Mechanisms of autoimmune diseases. Selected autoimmune diseases.
9. The basics of tumor immunity.
10. The basics of transplant immunity.

Seminars

1. Immunological aspects in oncology. Elements of reproductive immunology.
2. Immunological therapies in allergic, autoimmune and neoplastic diseases.

Classes

1. Introduction to the immunology. The structure and basics of the immune system functioning. Possibilities of the immune parameter assessment.
2. Cellular immunity – the phenotype assessment, flow cytometry. PBMC isolation, assessment of lymphocyte viability.
3. Cellular immunity – the function assessment of immunocompetent cells. Cytograms analysis.
4. Humoral immunity – antibodies and the complement system assessment. The antibodies as diagnostic and therapeutic tool. Electrophorograms assessment.
5. Immune deficiencies. Diagnostics of primary and secondary immune deficiencies.
6. Hypersensitivity – classification. Allergic reactions. Allergy diagnostics. Skin prick tests.
7. Hypersensitivity – autoaggressive diseases. Detection of organ-specific and organ-non-specific antibodies.
8. Immune aspects of the digestive and respiratory diseases. Clinical case analysis.
9. Immune aspects of the circulatory and the nervous system diseases. Clinical case analysis.
10. Immunohematology – selected aspects. Clinical case analysis.

Required textbooks

1. Basic immunology : functions and disorders of the immune system / Abul K. Abbas, Andrew H. Lichtman, Shiv Pillai. - St. Louis : Elsevier Saunders, 2016 and newer.
2. Cellular and molecular immunology / Abul K. Abbas, Andrew H. Lichtman, Shiv Pillai. - Philadelphia : Saunders Elsevier, 2022, 2026.
3. Immunology / David Male, R. Stokes Peebles, Victoria Male. - Elsevier, 2021, 2026.

Optional textbooks and additional materials

1. Scientific and professional journals: Allergy: European Journal of Allergy and Clinical Immunology

Prerequisites

Getting credit for the subject of anatomy and histology with cytophysiology. It is necessary to familiarize yourself with the Regulations for conducting classes, available on the Department and Clinical Immunology Unit's website, on the notice boards in the classrooms, or on the PLUM platform.

Rules for the award of grade components in the course throughout the winter semester

Materials related to lectures (WY), exercises (CN), and seminars (SE) are posted in the PLUM system. Attendance is checked at every class. During exercises (CN), students are randomly chosen to answer orally and respond to questions about topics discussed in the last conducted exercise. A student has the opportunity to improve their oral answer (if failed) once within the deadline specified in the detailed course regulations available on the PLUM platform, on the Department of Clinical Immunology's website, or on the notice boards near the department's classrooms. During the semester, there are two written partial tests: for exercises 1–5 and for exercises 6–

10. Each test has 25 questions (MCQ), and the passing threshold is 15 correct answers (60%). A student can retake a failed midterm just once. During the semester, there are two seminars (SE) where students present previously assigned topics in groups to pass. Failing an oral exam, midterm, or seminar on time will result in a final credit test.

The detailed rules for passing all types of classes and the grading criteria can be found in the Regulations for conducting educational classes.

Terms and criteria to obtain a graded pass for the course

The requirements for passing the course are: passing two seminar presentations, completing all practical exercises during classes, justifying and getting credit for any absences, passing the oral exam (if the student is selected for it), and passing both midterm tests. All credits must be completed within the deadlines specified in the detailed Course Regulations available, among other places, on the PLUM platform. The minimum required to pass the course is 30 points from both midterms. If a midterm is retaken, the final score is calculated as the arithmetic average. Students who haven't met the above criteria by the penultimate exercise session take a final course test covering all material from the exercises – a 30-question MCQ test, with a passing score of 18 correct answers (60%). A student can retake the final exam only once. The grade for the course depends on the number of points earned in both partial exams (percentage scale from the Study Regulations). From a retaken final exam, a student can get a maximum grade of satisfactory (3.0). The detailed rules for passing all types of classes and the criteria for each grade are given in the Regulations for Conducting Educational Classes.

Grade	Pass threshold
Very Good (5.0)	93-100%
Good Plus (4.5)	85-92%
Good (4.0)	77-84%
Satisfactory Plus (3.5)	69-76%
Satisfactory (3.0)	60-68%
Unsatisfactory (2,0)	Less than 60%

Terms and criteria of admission to exam

Being allowed to take the exam depends on passing the exercises with a positive grade.

Exam terms and criteria

The written theoretical exam contains 50 questions – MCQ Type A with 1 correct answer + 4 distractors. The questions test knowledge on facts and understanding of phenomena related to the functioning and disorders of the immune system, as well as the ability to select and interpret laboratory test results regarding specific pathologies. The required material covers topics presented in lectures (WY), practical classes (CN), and seminars (SE), supplemented with knowledge gained through self-study. The exam is held on a single day, in student groups of 50–70 people, depending on the availability of lecture rooms adapted for the exam. Egzamin pisemny trwa 50 minut. The written exam lasts 50 minutes. Students mark the selected correct answers on answer sheets. Each student gets only one sheet. Detailed grading criteria for the grade are given in the Rules for Conducting Educational Classes, and the % scale from the Study Regulations. Retake exams in the first and second terms are held on the same basis.

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Good (4.0)	77-84%
Satisfactory Plus (3.5)	69-76%
Satisfactory (3.0)	60-68%
Unsatisfactory (2,0)	Less than 60%

Unit in charge of the course	Katedra i Zakład Immunologii Klinicznej
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Course Coordinator	not applicable
Phone number	not applicable
E-mail	not applicable

OFFICE HOURS: Detailed information about the dates and locations of academic staff office hours is provided on the websites of the individual organisational units of the University teaching the course and in the display boards next to the secretariats.

Last updated on	Syllabus updated by
15 September 2026	marek.jutel@umw.edu.pl

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