



Vaccinology in Practice

Wakcynologia Praktyczna

1. IMPRINT

Academic Year	2026/2027
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline	Medical sciences
Study Profile	General academic
Level of studies	Uniform MSc
Form of studies	Full time studies
Type of module / course	Obligatory (elective course)
Form of verification of learning outcomes	Completion
Educational Unit / Educational Units	Department of Social Medicine and Public Health Medical University of Warsaw Medical Simulation Center Banacha Campus 3a Pawińskiego St., 02-106 Warsaw E-mail: msizp@wum.edu.pl
Head of Educational Unit / Heads of Educational Units	Prof. Aneta Nitsch-Osuch, MD
Course coordinator	Katarzyna Lewtak, MD, PhD katarzyna.lewtak@wum.edu.pl
Person responsible for syllabus	Katarzyna Lewtak, MD, PhD katarzyna.lewtak@wum.edu.pl
Teachers	Prof. Aneta Nitsch-Osuch, MD Katarzyna Lewtak, MD, PhD

2. BASIC INFORMATION

Year and semester of studies	IV year, summer, and winter semester	Number of ECTS credits	2.00
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FORMS OF CLASSES	Number of hours	ECTS credits calculation
Contacting hours with academic teacher		
Lecture (L)		
Seminar (S)	30 (e-learning)	1.2
Classes (C)		
e-learning (e-L)		
Practical classes (PC)		
Work placement (WP)		
Unassisted student's work		
Preparation for classes and completions	20	0.8

3. COURSE OBJECTIVES

O1	Understanding the types and technology platforms of vaccines.
O2	Understanding the concept of life long approach to immunization.
O3	Comprehensive understanding of vaccine hesitancy problem.
O4	Having knowledge about the most common indications and contraindications for vaccines, including risk group patients.
O5	Having knowledge about recommended vaccines for pregnant women (maternal immunization rules and principles).
O6	Ability to provide a medical advice for patients who require vaccinations.

4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING

Code and number of the effect of learning in accordance with standards of learning	Effects in the field of: <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>
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Knowledge – Graduate* knows and understands:

C.W13	epidemiological background of viral, bacterial, fungal and parasitological infections including the geographical distribution of microorganisms;
C.W15	consequences of exposure of the human body to a variety of chemical and biological agents and the principles of prevention;
E.W2	rules of nutrition of healthy and sick children, protective vaccinations and routine children's health checks;
E.W6	the most common life threatening conditions in children and the management of these conditions;

E.W33	procedures in the case of detection of an infectious disease;
E.W34	causes, symptoms, diagnostics and therapy principles in the most common bacterial, viral, fungal and parasitic diseases, including pneumococcal diseases, viral hepatitis, AIDS, sepsis and nosocomial infections;
G.W3	epidemiology of infectious and chronic diseases, methods of prevention at different stages of the disease natural history and the roles of epidemic surveillance;

Skills– Graduate* is able to:

E.U1	collect medical history from adult patients;
E.U2	collect medical history from a child and its family;
E.U16	plan diagnostic, therapeutic and preventive treatment;
E.U27	qualify a patient for vaccinations;
E.U32	plan specialist consultations;
G.U2	collect information about the presence of the factors of risk of infectious and chronic diseases and plan preventive actions at various levels of prevention;
G.U4	assess the epidemic situation of diseases common in the Republic of Poland and worldwide;

* In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate”, not student is mentioned.

5. ADDITIONAL EFFECTS OF LEARNING *(non-compulsory)*

Number of effect of learning	Effects in the fields of:
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Knowledge – Graduate knows and understands:

K1	Types of vaccinations and technology platforms.
K2	Vaccine hesitancy problem.
K3	Vaccine recommendations and requirements.

Skills– Graduate is able to:

S1	Help patient to choose vaccine, including risk group patients and pregnant women;
S2	Describe and recognise a patient with a hesitant attitude to vaccines;
S3	Plan a vaccination schedule for a patient.

Social Competencies – Graduate is ready for:

SC1	Being familiar with current vaccine recommendations.
SC2	Identifying the indications and contraindications for vaccines.
SC3	Accessing reliable evidence-based country specific information about vaccine / current epidemiological situation.

SC4	Delivering correct advice using reliable information resources tailored to the individual needs of each patient (regarding vaccines and vaccination schedule).
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6. CLASSES		
Form of class	Class contents	Effects of Learning
(e-L) seminar 1 asynchronous online course	Introduction to vaccinology. Types of vaccines and technological platforms for vaccine production.	E.W2, E.W6, E.W33, E.W34, G.W3, E.U1, E.U2, E.U32, G.U2, G.U4
(e-L) seminar 2 and 3 asynchronous online course	Lifelong approach to vaccination	C.W13, C.W15, E.W33, E.W34, G.W3, E.U1, E.U2, G.U2
(e-L) seminar 4 asynchronous online course	Maternal immunization – general rules and principles	E.W2, E.W6, E.W33, E.W34, G.W3, E.U1, E.U2, E.U16; E.U27, E.U32, G.U4
(e-L) seminar 5 and 6 asynchronous online course	Adult immunization	C.W13, C.W15, E.W34, G.W3, E.U1, E.U2, E.U16; E.U27, E.U32, G.U4
(e-L) seminar 7 asynchronous online course	Vaccine hesitancy	C.W13, C.W15, E.W2, E.W6, E.W33, E.W34, G.W3, E.U1, E.U2, E.U16; E.U27, E.U32, G.U2
(e-L) seminar 8 and 9 asynchronous online course	Adult immunization – practical aspects	E.W2, E.W6, E.W33, E.W34, G.W3, E.U1, E.U2, E.U16; E.U27, E.U32, G.U2
(e-L) seminar 10 asynchronous online course	History of vaccines and vaccinology	E.W2, E.W6, E.W33, E.W34, G.W3, E.U1, E.U2, E.U16; E.U27, E.U32, G.U2

7. LITERATURE
Obligatory
1. Plotkin S, Orenstein W, Offit P, Edwards K: Plotkin's vaccines. 8th edition. Elsevier 2022.
Supplementary

8. VERIFYING THE EFFECT OF LEARNING		
Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
C.W13, C.W15, E.W2, E.W6, E.W33, E.W34, G.W3, E.U1, E.U2, E.U16; E.U27, E.U32, G.U2, G.U4	1. Quizzes, written assignments 2. Test (MCQ) – 30 questions	A minimum score of 70% is required for all quizzes, assignments, and the final test.

9. ADDITIONAL INFORMATION

*(Please write here Information essential for the course instructor that are not included in the other part of the course syllabus, **particularly the number of acceptable tries for passing a subject (§ 26, § 27 and § 28 of Study Regulations)**, including exam admission passes, and e.g. if the course is related to scientific research, detailed description of, information about the Science Club)*

Additional Information:

- The maximum number of participants per course edition is 500.
- Students have three attempts to obtain credit for the course (in accordance with §§ 26, 27, and 28 of the Study Regulations).
- The course is conducted entirely online via the e-learning platform www.e-learning.wum.edu.pl.

Course Requirements:

- All course deadlines, including those for assignment submission and completion of required learning activities (reviewing course materials and completing quizzes), will be announced in the General Information section on the main page of the e-learning course. Students are responsible for checking this section regularly and meeting all published deadlines.
- Students are required to study all learning materials provided within the course modules on the e-learning platform.
- After each module, students must complete all required quizzes and assignments. Completion of these activities is mandatory for successful course completion.
- All written assignments must be submitted via the e-learning platform and receive a passing evaluation from the course instructor.
- Students must complete all mandatory course requirements, including studying all course materials, successfully completing all required quizzes, and receiving a passing evaluation for all written assignments.
- Eligibility to take the final test is conditional upon the successful completion and positive assessment of all required written assignments.
- The course is considered successfully completed only after the student has fulfilled all mandatory course requirements and passed the final test available on the e-learning platform.
- A course completion certificate may be downloaded only after the final test has been passed and all required assignments have received a passing evaluation. However, a downloaded certificate does not constitute proof of successful course completion unless all course requirements have been fulfilled, including studying all required learning materials, obtaining passing scores on all required quizzes, and receiving passing evaluations for all required written assignments. Only students who meet all course requirements will be awarded course credit and have the course recorded in the official academic grading system.

Guidelines for the use of Artificial Intelligence (AI) tools

- Within the course, the use of artificial intelligence-based tools is permitted as a means of supporting the learning process.
- AI tools may be used as supportive resources, including for searching and organizing information, analyzing problems, generating a range of possible solutions, and supporting the process of creating and editing texts, while maintaining principles of academic integrity and the Evidence-Based Medicine approach.
- The use of AI tools requires compliance with academic integrity principles, in particular: declaring the use of AI tools in submitted work, maintaining independence in conducting analyses, interpreting results, and formulating conclusions, as well as respecting data protection, information confidentiality, and copyright regulations.
- It is not permitted to: present AI-generated content as one's own original work, use AI-generated responses uncritically as scientific sources of knowledge, or replace the process of reasoning and scientific evaluation with results generated by AI tools.
- The use of AI tools should support the development of analytical and critical thinking skills, as well as decision-making abilities in complex situations, including clinical and healthcare system contexts, rather than replace these skills.

Important Communication Note:

Students are required to regularly check their official MUW email account, as all course-related information is communicated exclusively through the MUW email system.

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ATTENTION

The final 10 minutes of the last class of the block/semester/year should be allotted for students to fill out the Survey of Evaluation of Classes and Academic Teachers