

MINISTRY OF HEALTH OF UKRAINE  
KHARKIV NATIONAL MEDICAL UNIVERSITY

Department Epidemiology

Academician year 2022 - 2023

SYLLABUS OF THE EDUCATIONAL COMPONENT  
VACCINE PROPHYLAXIS IN THE PRACTICE OF THE NURSE

Optional educational component

The form of education is full-time

Branch of knowledge 22 «Healthcare»

Specialty 223 «Nursing»

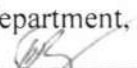
Educational and professional program «Nursing»

The first (bachelor's) level of higher education 4 years of study

Course second


The syllabus of the educational component was considered at the meeting of the Department of the Epidemiology

Protocol of  
"27" August 2021 № 23

Head of department,  
Professor  T.O. Chumachenko

Approved by the methodical commission of KhNMU on Public Health problems medicine

Protocol of  
"27" August 2021 № 1

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## INTRODUCTION

Syllabus of the educational component " VACCINE PROPHYLAXIS IN THE PRACTICE OF THE NURSE " was compiled in accordance with the educational and professional program (hereinafter - EPP) "Nursing" and the Standard of Higher Education of Ukraine (hereinafter - Standard), first (bachelor's) level, fields of knowledge 22 "Health care", specialty 223 «Nursing»

### Description of the component

The educational component includes information on the relevance of immunoprophylaxis in the modern world, the specifics of the organization and implementation of planned and post-exposure

immunoprophylaxis. In the process of studying the educational component, the students acquire knowledge and skills regarding immunoprophylaxis according to routine and individual schemes. The dynamic implementation of a large number of immunobiological drugs in the practice of health care requires knowledge about the properties of certain vaccines, their advantages and disadvantages, features of use, features of transportation and storage. The organization and implementation of mass immunoprophylaxis is entrusted to public health departments and family doctors, therefore, knowledge of planned and emergency immunoprophylaxis, the algorithm of actions of medical workers during vaccination, its control and prevention of undesirable events after immunization is extremely important. Also, knowledge of the basics of immunology and immunoprophylaxis will be relevant when organizing preventive and anti-epidemic measures in foci of certain infectious diseases, to improve the epidemic situation and achieve a sustainable reduction in the incidence of certain infectious diseases (according to WHO recommendations), the elimination or eradication of certain infections and the preservation of public health. I, in the event of emergency situations in the field of health care, etc

**The subject of study** of the component of immunoprophylaxis of infectious diseases, implementation of various immunoprophylaxis programs

**Interdisciplinary links:** The component is based on the knowledge obtained by the graduate in the study of other basic components - epidemiology, medical biology, microbiology, virology and immunology, infectious diseases, histology, cytology and embryology, human anatomy, normal and pathological physiology, pediatrics, biostatistics. '

**Prerequisites:** Basics of medical biology and microbiology, Epidemiology

**Postrequisites:** The role of the nurse in the prevention of infections associated with the provision of medical care, Anti-epidemic measures in foci of infectious diseases

## **1. PURPOSE AND TASKS OF THE COURSE**

**1.1. The purpose of studying the component** "Topical issues of immunoprophylaxis" is to improve theoretical knowledge and practical skills on specific prevention of infectious diseases, organization and conduct of preventive vaccinations.

### **1.2. The main tasks of studying the component are:**

1. Demonstrate awareness of the importance of immunoprophylaxis as one of the main means of maintaining public health in the modern world;
2. Demonstrate the ability to organize and conduct immunoprophylaxis;
3. Demonstrate the ability to assess the state of human health in need of immunoprophylaxis;
4. Demonstrate the ability to prevent adverse events related to immunoprophylaxis

### **1.3. Competences and learning outcomes**

According to the requirements of the standard, the component provides the applicant with higher education competencies:

According to the requirements of the standard, the component provides the applicant with higher education competencies:

**integrated:** A bachelor of nursing is able to solve complex specialized tasks and practical problems in the field of nursing or in the learning process, which involves the application of certain theories and methods of the relevant science and is characterized by the complexity and uncertainty of conditions.

#### **general:**

GC 01. The ability to realize one's rights and responsibilities as a member of society, to realize the values of a civil (free democratic) society and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine.

GC 03. Ability to abstract thinking, analysis and synthesis

GC 04. Ability to apply knowledge in practical situations

GC 05. Knowledge and understanding of the subject area and understanding of professional activity

- GC 08. Skills in using information and communication technologies
- GC 09. Determination and persistence in relation to assigned tasks and assumed responsibilities
- GC 12. Skills of interpersonal interaction
- GC 13. Ability to act on the basis of ethical considerations

**special (professional, subject):**

- PC 01. Ability to apply professional and legal standards in everyday professional practice.
- PC 02. The ability to recognize and interpret signs of health and its changes, illness or disability (assessment/diagnosis), restrictions on the possibility of full-fledged life activities, and to determine the problems of patients with various diseases and conditions.
- PC 04. Application of professional skills (skills), medical means, interventions and actions to ensure the patient/client's dignified treatment, privacy (intimacy), confidentiality, protection of his rights, physical, psychological and spiritual needs on the basis of transcultural nursing, tolerant and non-judgmental behavior .
- PC 07. Preservation of the specialist's own health when providing care, performing manipulations and procedures, when moving and transporting the patient/client.
- PC 08. Preventive activities of a nurse aimed at preserving and strengthening health, preventing diseases and informing and educating the patient and his family members.

**1.3.2.** The study of the component provides students with the acquisition of the following program learning outcomes:

- PLO 1. Conduct. nursing subjective and objective examination of various organs and systems of the patient and evaluate the obtained data. In the conditions of health care facilities (303) and at home, by communicating with patients of different age groups, their relatives or close relatives of a sick child and his parents, be able to collect complaints, anamnesis of illness, anamnesis of life. Allergological anamnesis, epidemiological anamnesis, evaluate anamnestic data.
- PLO 8. To perform medical manipulations in order to ensure a sanitary and anti-epidemic regime.
- PLO 17. Plan and carry out preventive and anti-epidemic measures regarding infectious diseases.
- PLO 19. Conduct medical and hygienic propaganda.
- PLO 20. Appropriate medical documentation should be kept

**1.3.3.** The study of the component provides students with the following social skills (Soft skills):

- active listening
- ability to express one's opinion clearly
- ability to be a member of a team, to work for results
- leadership skills
- ability to determine the essence of the problem and the reasons for its occurrence
- the ability to formulate solutions to this problem
- the ability to choose the optimal solution
- ability to distinguish facts from myths, stereotypes and personal ideas
- the ability to concentrate on achieving a goal

**2. INFORMATION SCOPE OF THE COMPONENT**

Name indicators	Branch of knowledge, specialty, educational degree, EPP	Characteristics of the component	
Number of credits – 3,0	Branch of knowledge <u>22 "Health Care"</u>	Daily form of education	
		Optional	
Total number of hours –90	Specialty:	<b>course:</b>	
		2nd	

	<u>223 "Nursing"</u> (code and name)	<b>Semester</b>	
		3th/ 4th	
		<b>Lectures</b>	
Hours for full-time study: classrooms - 32 self-work of the applicant - 58	<u>the first (bachelor's) level of higher education</u>  <u>EPP «Nursing»</u>	2 hours	
		<b>Practical classes</b>	
		30 hours	
		<b>Laboratory classes</b>	
		0 hours	
		<b>Self-work</b>	
		58 hours	год.
		<b>Individual task:0</b> год.	
Final control is credit			

## 2.1 Content of the component

### 2.2.1 Lectures

№	Topic	Hours	Types of lectures
1	Vaccination history. Effectiveness of immunoprophylaxis. Strategic plans for immunoprophylaxis of infectious diseases as a basis for preserving public health. Elimination and eradication of certain infectious diseases, problems and prospects.	2	introductory
	Total hours	2	

### 2.2.3

#### Topics of practical classes

Practical class №	Topics of practical classes	Hours	Methods Learning	Forms control
1	Human immune system, anatomical, physiological, age features. Concept of "immunity", types of immunity, factors of innate and acquired immunity. Immune response, types of immune response, stages of immune response. Concepts of "antigen", "antibody".	4	story-explanation, conversation, presentation, discussion	Current control: oral examination (individual and frontal); written examination; self-control; report; speech on a given topic Final control: credit

2	Vaccination, current state of the problem, challenges. Ways to overcome the "anti-vaccination campaign" in society and restore trust in vaccination.	4	story-explanation, conversation, presentation, discussion, video, case-method	Current control: oral examination (individual and frontal); written examination; self-control; report; speech on a given topic Final control: credit
3	Classification of MIBP, types of MIBP, their advantages and disadvantages. Features of manufacturing, transportation and preservation of MIBP. The concept of "cold chain". MIBP for creation of artificial active and artificial passive immunity. The role of the nurse in the preservation of MIBP (packaging, transportation, monitoring)	4	story-explanation, conversation, presentation, discussion, video, case-method	Current control: oral examination (individual and frontal); written examination; self-control; report; speech on a given topic Final control: credit
4	Organization and implementation of immunoprophylaxis. "Vaccination office" as a structural subdivision of a health care facility. Selection of contingents for immunoprophylaxis. Algorithm of action when organizing and carrying out specific prevention. Indications and contraindications for the introduction of MIBP. Ways, doses and technique of MIBP administration. Documentation accompanying immunoprophylaxis	4	story-explanation, conversation, presentation, discussion	Current control: oral examination (individual and frontal); written examination; self-control; report; speech on a given topic Final control: credit
5	Planned (routine) specific prevention. Calendar of preventive vaccinations.	4	story-explanation, conversation, presentation, discussion	Current control: oral examination (individual and frontal); written examination; self-control; report; speech on a given topic Final control: credit



6	Peculiarities of vaccine prophylaxis outside the schedule of preventive vaccinations (individual vaccination schemes). Immunoprophylaxis according to epidemic indications. Post-contact immunoprophylaxis	4	story-explanation, conversation, presentation, discussion	Current control: oral examination (individual and frontal); written examination; self-control; report; speech on a given topic Final control: credit
7	Features of immunoprophylaxis of certain infectious diseases (influenza, meningococcal infection, pneumococcal infection, hepatitis A, rotavirus disease, Covid-19, etc.). Post-immunization adverse events (AEs): detection, recording, reporting, causes and prevention	4	story-explanation, conversation, presentation, discussion	Current control: oral examination (individual and frontal); written examination; self-control; report; speech on a given topic Final control: credit
	Defense of individual independent work. Final test	2	consultation	Final control: credit
Total hours of the practical classes		30		

#### 2.2.4. Laboratory classes

It does not have

#### 2.2.5. Self-work topics

№	Topics	hours	Methods Learning	Forms control
1	Human immune system, anatomical, physiological, age features. Concept of "immunity", types of immunity, factors of innate and acquired immunity. Immune response, types of immune response, stages of immune response. Concepts of "antigen", "antibody".	4	story-explanation, conversation, presentation, discussion	Current control: oral examination (individual and frontal); written examination; self-control; report; speech on a given topic Final control: credit
2.	Vaccination, current state of the problem, challenges. Ways to overcome the "anti-vaccination campaign" in society and restore trust in vaccination.	3	story-explanation, conversation, presentation, discussion	Current control: oral examination (individual and frontal); written examination; self-control;

				report; speech on a given topic Final control: credit
3.	Classification of MIBP, types of MIBP, their advantages and disadvantages. Features of manufacturing, transportation and preservation of MIBP. The concept of "cold chain". MIBP for creation of artificial active and artificial passive immunity. The role of the nurse in the preservation of MIBP (packaging, transportation, monitoring)	10	story-explanation, conversation, presentation, discussion	Current control: oral examination (individual and frontal); written examination; self-control; report; speech on a given topic Final control: credit
4	Organization and implementation of immunoprophylaxis. "Vaccination office" as a structural subdivision of a health care facility. Selection of contingents for immunoprophylaxis. Algorithm of action when organizing and carrying out specific prevention. Indications and contraindications for the introduction of MIBP. Ways, doses and technique of MIBP administration. Documentation accompanying immunoprophylaxis	10	story-explanation, conversation, presentation, discussion	Current control: oral examination (individual and frontal); written examination; self-control; report; speech on a given topic Final control: credit
5	Planned (routine) specific prevention. Calendar of preventive vaccinations.	10	story-explanation, conversation, presentation, discussion	Current control: oral examination (individual and frontal); written examination; self-control; report; speech on a given topic Final control: credit
6	Immunoprophylaxis according to epidemic indications. Post exposed immunoprophylaxis.	10	story-explanation, conversation, presentation, discussion	Current control: oral examination (individual and frontal); written examination; self-control; report; speech on a given topic

				Final control: credit
7	Features of immunoprophylaxis of certain infectious diseases. Defense of individual work. Preparation for the test..	11	story- explanation, conversation, presentation, discussion	Current control: oral examination (individual and frontal); written examination; self-control; report; speech on a given topic Final control: credit
	<b>Total</b>	58		

### 3. EVALUATION CRITERIA

**3.1** Carried out in accordance with the "Instructions for the evaluation of educational activities in the European credit transfer system for the organization of the educational process (order of KhNMU from 21. 08. 2021 № 181)

#### Evaluation of current learning activities (CLA)

When assessing the mastery of each subject of the component (CLA), the applicant is graded according to the traditional 4-point system: "excellent", "good", "satisfactory" or "unsatisfactory".

The final score for the current learning activity (CLA) is defined as the arithmetic mean of traditional grades for each lesson, rounded to 2 decimal places and listed in a multi-point scale according to Table 1 (see below).

CLA is considered fulfilled if the applicant in the current semester has completed all missed classes and lectures, and the average score for all topics of the PC is 3 points or higher, in which case the statement is marked "completed" and indicates the average score in 4-point system ( is calculated automatically within the functionality of the electronic journal of ACS), or "unfinished", if the applicant in the current semester has unfinished missed classes and lectures, or an average score below 3 points.

The recalculation of the average score for CLA is carried out in accordance with table 2, as the component ends with a credit. The number of points that must be scored by the applicant for higher education for admission to the final test from 129 to 200 points.

The final score for the current educational activities in the semester is defined as the arithmetic mean of national grades for each lesson, rounded to 2 decimal places. Recalculation of the average grade for current educational activities in a multi-point scale is carried out in accordance with table 2. To enroll a student must receive from 120 to 200 points.

Table 2

#### Recalculation of the average score for current activities in a multipoint scale (for components ending with a credit)

4-point scale	200- point scale	4- point scale	200- point scale	4- point scale	200- point scale
5	200	4.22-4,23	169	3.45-3,46	138
4.97-4,99	199	4.19-4,21	168	3.42-3,44	137
4.95-4,96	198	4.17-4,18	167	3.4-3,41	136
4.92-4,94	197	4.14-4,16	166	3.37-3,39	135
4.9-4,91	196	4.12-4,13	165	3.35-3,36	134
4.87-4,89	195	4.09-4,11	164	3.32-3,34	133

4.85-4,86	194	4.07-4,08	163	3.3-3,31	132
4.82-4,84	193	4.04-4,06	162	3.27-3,29	131
4.8-4,81	192	4.02-4,03	161	3.25-3,26	130
4.77-4,79	191	3.99-4,01	160	3.22-3,24	129
4.75-4,76	190	3.97-3,98	159	3.2-3,21	128
4.72-4,74	189	3.94-3,96	158	3.17-3,19	127
4.7-4,71	188	3.92-3,93	157	3.15-3,16	126
4.67-4,69	187	3.89-3,91	156	3.12-3,14	125
4.65-4,66	186	3.87-3,88	155	3.1-3,11	124
4.62-4,64	185	3.84-3,86	154	3.07-3,09	123
4.6-4,61	184	3.82-3,83	153	3.05-3,06	122
4.57-4,59	183	3.79-3,81	152	3.02-3,04	121
4.54-4,56	182	3.77-3,78	151	3-3,01	120
4.52-4,53	181	3.74-3,76	150	<b>Less than 3</b>	<b>Not enough</b>
4.5-4,51	180	3.72-3,73	149		
4.47-4,49	179	3.7-3,71	148		
4.45-4,46	178	3.67-3,69	147		
4.42-4,44	177	3.65-3,66	146		
4.4-4,41	176	3.62-3,64	145		
4.37-4,39	175	3.6-3,61	144		
4.35-4,36	174	3.57-3,59	143		
4.32-4,34	173	3.55-3,56	142		
4.3-4,31	172	3.52-3,54	141		
4,27-4,29	171	3.5-3,51	140		
4.24-4,26	170	3.47-3,49	139		

### **Assessment of individual tasks**

At the meeting of the department approved a list of individual tasks with the definition of the number of points for their performance, which can be added as incentives (not more than 10). Points for individual tasks are accrued once only on a commission basis (commission - head of the department, head teacher, group teacher) only if they are successfully completed and defended. The total amount of points may not exceed 200 points.

### **Assessment of students' self-work**

Assimilation of topics that are submitted only for self-work is checked during practical classes and tests.

### **Grade from the component**

The course is studied during the 1st semester. Component ends with a test.

**Component assessment technology** (Table 3 of the "Instructions for assessing the educational activities of students").

Assessment of the results of the study of components is carried out directly during the test. The grade in the component is defined as the sum of scores on CLA, listed in the 200-point scale according to Table 2 and individual student tasks and is min - 120 to max - 200. Correspondence of grades on the 200-point scale, four-point (national) scale and ECTS scale is given in table 3.

Table 3

### **Correspondence of estimates on a 200-point scale, four-point (national) scale and ECTS scale**

Rating on a 200-point scale	Assessment on the ECTS scale	Score for four-point (national) scale
180–200	A	excellent
160–179	B	good
150–159	C	good
130–149	D	satisfactory
120–129	E	satisfactory
Less than 120	F, Fx	unsatisfactory

The grade in the component is given only to students who have completed the curriculum in the component in full. Grades "FX" or "F" ("unsatisfactory") are given to students who are not credited with the study of the component, the form of control of which is credit.

After completing the study of the component responsible for the organization of educational and methodical work at the department or the teacher puts the student's grade on the scales (Table 6) in the record book and fill in the progress of students in the component forms: U-5.03A - credit.

### **Elimination of academic debt (working off)**

Students must complete all missed classes and unsatisfactory grades. At the same time, classes are held within one calendar month from the moment of skipping or receiving an unsatisfactory grade is carried out once without obtaining permission from the dean's office and without payment. At the end of the one-month period, classes are held in accordance with the "Regulations on the procedure for students of Kharkiv National Medical University to study," approved by the order of KhNMU from 07.12.2015 №.415;

### **3.3 Control questions, tasks for self-work**

1. Immunoprophylaxis, definition.
2. History of vaccination.
3. Global strategic plans for vaccination.
4. International immunization programs.
5. Advanced immunization program, problems and challenges of today
6. Ways to overcome the "anti-vaccination campaign" in society and restore confidence in vaccination.
7. Legal aspects and bioethical problems of immunoprophylaxis.
8. The concept of elimination and eradication of certain infectious diseases.
9. Immunity, types of immunity.
10. Immune response, types, stages, dynamics of antibody formation.
11. Differences between primary and secondary immune response.
12. The concept of antigens.
13. The concept of antibodies.
14. Vaccines, definition, classification.
15. Live vaccine, method of manufacture, advantages and disadvantages, examples.
16. Inactivated vaccine, method of manufacture, advantages and disadvantages, examples.
17. Chemical vaccine, method of manufacture, advantages and disadvantages, examples.
18. Recombinant vaccine, method of manufacture, advantages and disadvantages, examples.
19. Anatoxins, method of manufacture, advantages and disadvantages, examples.
20. Characteristics of promising types of vaccines.
21. Serum, method of manufacture, advantages and disadvantages, examples.
22. Immunoglobulins, method of manufacture, advantages and disadvantages, examples.

23. System of transportation, storage, use and accounting of medical immunobiological drugs.
24. Calendar of preventive vaccinations of Ukraine. Legal aspects of vaccine prophylaxis.
25. Drawing up a plan for preventive vaccinations.
26. Filling in the accounting documentation for vaccinations.
27. Immunoprophylaxis of coronavirus disease COVID-19.
28. Immunoprophylaxis of tuberculosis.
29. Immunoprophylaxis of diphtheria.
30. Immunoprophylaxis.
31. Immunoprophylaxis of pertussis.
32. Immunoprophylaxis of polio.
33. Immunoprophylaxis of hepatitis B virus.
34. Immunoprophylaxis of hemophilic infection type b.
35. Immunoprophylaxis of measles.
36. Immunoprophylaxis of rubella.
37. Immunoprophylaxis of mumps.
38. Immunoprophylaxis of certain infectious diseases (recommended).
39. Types of immunoprophylaxis (planned
40. Teminal post-contact immunoprophylaxis of tetanus.
41. Urgent post-exposure immunoprophylaxis.
42. Urgent post-exposure prevention of infections that are epidemic in the country.
43. Evaluation of the effectiveness of immunoprophylaxis (epidemiological, clinical, immunological, economic).
44. General principles of prevention of adverse events after vaccination.
45. Contraindications to vaccination (temporary and permanent).

### 3.4 Individual tasks

The individual task from the educational component is the performance of individual educational and research tasks on the study of the manifestations of the epidemic process and the epidemic situation in relation to a certain infectious disease, which is managed by means of specific prevention, features of the organization and implementation of mass and emergency immunoprophylaxis, problems, challenges and ways to solve them, creation and presentation of research results at practical classes and scientific-practical conferences of various levels (oral presentation, publication of theses, articles in professional journals, poster presentations).

#### **Distribution of additional points for winners depending on the type of individual work performed**

Type of individual work	Scores
Presentation and publication of theses at conferences with international participation	8 - 10
Presentation and publication of theses at conferences in Ukraine	7 - 8
Publication of theses at conferences with international participation	5 - 6
Publication of theses at conferences in Ukraine	4 - 6
Search for epidemiological data	0 - 4
Preparation of an oral message with a presentation in class	2 - 4
Preparation of an oral message in class	0 - 2

### 3.5 Rules for appealing the assessment

The complaint is submitted to the person responsible for educational and methodical work or the head of the department, discussed at the meeting of the department, students are offered to pass the test

before the commission, which includes the head of the department, head of the department, associate professor and / or lecturer of the academic group.

#### **4. COMPONENT POLICY**

Academic expectations from higher education students

Component requirements

It is expected that applicants for higher education will attend all practical classes and complete all sections of independent work. If they missed classes, it is necessary to work it out (according to the schedule on the information stand of the department)

Written and homework must be completed completely and on time, if the applicant has questions, you can contact the teacher in person or by e-mail, which the teacher provides in the first practical lesson. During the practical classes, the higher education seeker and the higher education seeker are recommended to keep a synopsis of the lesson and keep a sufficient level of silence. Asking questions to the teacher is perfectly normal.

Applicants for higher education must arrive on time, not be late, in class must be dressed in a medical gown, changeable shoes and boot covers are not required, outerwear remains in the wardrobe.

The use of electronic gadgets is allowed if necessary (as a calculator or for visual presentation of information in the form of graphs and charts), but calls can be made only during a break, finding the correct answer using gadgets via the Internet is prohibited.

Behavior in the audience

Basic "yes" and "no"

It is important for a higher education student to follow the rules of good conduct at the university. These rules are common to all, they also apply to all faculty and staff, and are not fundamentally different from the generally accepted norms.

During classes it is allowed:

- leave the audience for a short time if necessary and with the permission of the teacher;
- drink soft drinks;
- take photos of presentation slides;
- take an active part in the course of the lesson (see Academic expectations from higher education seekers).

forbidden:

- eat (except for persons whose special medical condition requires another - in this case, medical confirmation is required);
- smoking, drinking alcohol and even low-alcohol beverages or drugs;
- use obscene language or use words that offend the honor and dignity of colleagues and faculty;
- gambling;
- damage the material and technical base of the university (damage inventory, equipment; furniture, walls, floors, litter the premises and territories);
- shouting, shouting or listening to loud music in classrooms and even in corridors during classes.

With regard to persons with special educational needs, all students have the right to receive knowledge, including, if necessary, in a distance format.

Recommendations for successful completion of the component - active participation in the discussion in the audience, the student of higher education should be ready to understand the material in detail, ask questions, express their views, discuss. During the discussion it is important:

- respect for colleagues,
- tolerance for others and their experience,
- susceptibility and impartiality,
- the ability to disagree with the opinion, but to respect the identity of the opponent (s),

- careful argumentation of his opinion and the courage to change his position under the influence of evidence,
- self-expression, when a person avoids unnecessary generalizations, describes his feelings and formulates his wishes based on their own thoughts and emotions,
- Mandatory acquaintance with primary sources.

A creative approach in its various manifestations is welcome. Applicants from higher education are expected to be interested in participating in city, national and international conferences, competitions and other events in the subject profile.

#### Safety precautions

The first lesson of the course will explain the basic principles of labor protection by conducting appropriate training. It is expected that everyone should know where the nearest evacuation exit is, where the fire extinguisher is, how to use it, and so on.

### 5. ACADEMIC INTEGRITY

The Department of Epidemiology maintains zero tolerance for plagiarism. Applicants for higher education are expected to constantly raise their awareness of academic writing. The first classes will provide information on what to consider plagiarism and how to properly conduct research and scientific research. Additional points are credited for commission for individual educational and research tasks (IDP) for retrospective epidemiological analysis of infectious diseases, and presentation of research results at scientific and practical conferences of various levels (oral report, publication of abstracts, articles in professional journals, poster reports). However, if plagiarism is detected, the points will be canceled and deducted.

### 6. Recommended Books.

1. Gary D. Friedman. Primer of epidemiology. 5-th ed. p. McGraw-Hill: Professional, - 2004. – 401 p.
2. N.O. Vynograd General epidemiology. Kyiv. AUS Medicine Publishing. 2014. – 127 p.
3. Medical Epidemiology: Population Health and Effective Health Care, 5e Raymond S. Greenber. 2020. – 188 p.
4. CDC The Pink Book: Course Textbook - 13th Edition (2015) Epidemiology and Prevention of Vaccine-Preventable Diseases [электронный вариант] / режим доступа <https://www.cdc.gov/vaccines/pubs/pinkbook/index.html>
5. Vaccine Basics. <https://www.vaccines.gov/basics/>. Updated: March 23, 2017. Accessed: March 23, 2017.
6. ACIP Vaccine Recommendations and Guidelines Timing and Spacing of Immunobiologics General Best Practice Guidelines for Immunization. <https://web.archive.org/web/20230426141911/https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/timing.html>. Updated: April 7, 2023. Accessed: April 26, 2023.
7. Vaccine Recommendations and Guidelines of the ACIP: Altered Immunocompetence. <https://web.archive.org/web/20230317144823/https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/immunocompetence.html>. Updated: February 10, 2023. Accessed: March 31, 2023.
8. Birth-18 Years Immunization Schedule, By Medical Condition Recommendations for Ages 18 Years or Younger, United States, 2023. <https://web.archive.org/web/20230319233710/https://www.cdc.gov/vaccines/schedules/hcp/imz/child-indications.html>.



Updated: February 10, 2023. Accessed: March 24, 2023.

9. Adult Immunization Schedule by Medical Condition and Other Indication Recommendations for Ages 19 Years or Older, United States, 2023. <https://web.archive.org/web/20230324183231/https://www.cdc.gov/vaccines/schedules/hcp/imz/adult-conditions.html>.

Updated: February 10, 2023. Accessed: March 24, 2023.

## 7. INFORMATION RESOURCES

1. WHO <https://www.who.int/ru>, <https://www.who.int/countries/ukr/ru/>
2. CDC <https://www.multitran.com/c/M.exe?l1=1&l2=2&s=Centers+for+Disease+Control+>
3. ECDC <https://www.ecdc.europa.eu/en>
4. Child and Adolescent Immunization Schedule. Recommendations for Ages 18 Years or Younger, United States, 2023. <https://web.archive.org/web/20230324163634/https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.html>.  
Updated: February 10, 2023. Accessed: March 24, 2023.
5. Adult Immunization Schedule by Age Recommendations for Ages 19 Years or Older, United States, 2023. <https://web.archive.org/web/20230324184103/https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html>.  
Updated: February 10, 2023. Accessed: March 24, 2023.
6. Vaccine Recommendations and Guidelines of the ACIP. Timing and Spacing of Immunobiologics. General Best Practice Guidelines for Immunization: Best Practices Guidance of the Advisory Committee on Immunization Practices (ACIP). <https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/timing.html>.  
Updated: September 8, 2022. Accessed: November 4, 2022.
7. Catch-up Immunization Schedule for Children and Adolescents Who Start Late or Who Are More than 1 Month Behind Recommendations for Ages 18 Years or Younger, United States, 2023. <https://web.archive.org/web/20230324164753/https://www.cdc.gov/vaccines/schedule/hcp/imz/catchup.html>. Updated: February 10, 2023. Accessed: March 24, 2023.
8. General Best Practice Guidelines for Immunization: Special situations. <https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/special-situations.html>.  
Updated: February 10, 2023. Accessed: March 31, 2023.
9. Guiding Principles for Development of ACIP Recommendations for Vaccination during Pregnancy and Breastfeeding. <https://www.cdc.gov/vaccines/acip/committee/downloads/preg-principles-2008.pdf>.  
Updated: April 1, 2008. Accessed: October 4, 2022.
10. Recommended Vaccines for Healthcare Workers. <https://web.archive.org/web/20230421184127/https://www.cdc.gov/vaccines/adult/rec-vac/hcw.html>. Updated: May 2, 2016. Accessed: April 21, 2023
11. Vaccine Information for Adults. <https://www.cdc.gov/vaccines/adults/rec-vac/index.html>.  
Updated: May 19, 2023. Accessed: July 24, 2023.
12. Think travel vaccine guide. <https://wwwnc.cdc.gov/travel/page/vaccine-guide>.

Updated: December 4, 2019. Accessed: October 13, 2022.

## **8.OTHER**

Provisions on prevention, prevention and settlement of cases related to sexual harassment and discrimination in KhNMU

[http://files.knmu.edu.ua:8181/upload/redakt/doc\\_uchproc/polog-sex.doc](http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog-sex.doc)

Regulations on Academic Integrity and Ethics of Academic Relations at Kharkiv National Medical University

[http://files.knmu.edu.ua:8181/upload/redakt/doc\\_uchproc/polog\\_ad\\_etyka\\_text.pdf](http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_ad_etyka_text.pdf)

The order of conducting classes on in-depth study by students of Kharkiv National Medical University of certain components beyond the scope of the curriculum

[http://files.knmu.edu.ua:8181/upload/redakt/doc\\_uchproc/nak-poriad-pogl-vyv-dyvc.docx](http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/nak-poriad-pogl-vyv-dyvc.docx)

Regulations on the Commission on Academic Integrity, Ethics and Conflict Management of KhNMU

[http://files.knmu.edu.ua:8181/upload/redakt/doc\\_uchproc/polog\\_komis\\_ad\\_text.pdf](http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_komis_ad_text.pdf)

Regulations on the recognition of the results of non-formal education at Kharkiv National Medical University

[http://files.knmu.edu.ua:8181/upload/redakt/doc\\_uchproc/polog\\_neform\\_osv.pdf](http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_neform_osv.pdf) INCLUSIVE

EDUCATION:

[http://www.knmu.kharkov.ua/index.php?option=com\\_content&view=article&id=7108%3A2021-03-10-14-08-02&catid=12%3A2011-05-10-07-16-32&Itemid=33&lang=uk](http://www.knmu.kharkov.ua/index.php?option=com_content&view=article&id=7108%3A2021-03-10-14-08-02&catid=12%3A2011-05-10-07-16-32&Itemid=33&lang=uk)

ACADEMIC INTEGRITY:

[http://www.knmu.kharkov.ua/index.php?option=com\\_content&view=article&id=2520%3A2015-04-30-08-10-46&catid=20%3A2011-05-17-09-30-17&Itemid=40&lang=uk](http://www.knmu.kharkov.ua/index.php?option=com_content&view=article&id=2520%3A2015-04-30-08-10-46&catid=20%3A2011-05-17-09-30-17&Itemid=40&lang=uk)

[http://files.knmu.edu.ua:8181/upload/redakt/doc\\_uchproc/kodex\\_AD.docx](http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/kodex_AD.docx)