MINISTRY OF HEALTH OF UKRAINE

KHARKIV NATIONAL MEDICAL UNIVERSITY

IV medical faculty

Department epidemiology

Branch of knowledge 22 «Healthcare»

Specialty 222 «Medicine»

Educational - professional program the second (master's) level of higher education

SYLLABUS

EDUCATIONAL DISCIPLINE

**Urgent Problems of Immunoprophylaxis**

|  |  |  |
| --- | --- | --- |
| The syllabus of the discipline was approved at a meeting of the Department of Epidemiology  Protocol from  “28” August 2020 № 17  Head department,  prof .\_\_\_\_\_\_\_\_\_\_\_ Т.О. Chumachenko |  | Approved by the methodical commission of KhNMU on problems  professional training of medical-preventive profile  Protocol from  “\_\_3” \_September\_ 2020 № 2  Chairman of the methodical commission,  Professor \_\_\_\_\_\_\_\_\_\_ VA Ognev |

The name of the discipline "**Urgent Problems of Immunoprophylaxis»**

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Developers:

Head of the Department of Epidemiology, KhNMU, MD n., Professor T.O. Chumachenko,

Associate Professor of Epidemiology, PhD N. L.A. Zhdamarova

Assistant of the Department of Epidemiology of KhNMU VI Makarova.

Teacher: Dr. med. .n, professor, head of the department of epidemiology Chumachenko Tetyana Oleksandrivna

Information about the teacher (s) professional interests - epidemiology, molecular epidemiology, public health. Trajectory of professional development: graduated from Kyiv Medical Institute, 1983; specialty - "Hygiene, sanitation, epidemiology", MD. Ph.D., specialty 14.02.02 - epidemiology, doctoral dissertation topic "Immunoepidemiological monitoring of the population in the system of epidemiological surveillance of infections controlled by immunoprophylaxis, Professor (2012). He has a master's degree in higher school pedagogy, a qualification of a teacher of universities and higher educational institutions. He has the highest qualification category in the specialty "epidemiology". Constantly improves his skills, including foreign internships. Actively engaged in scientific activities, is a recognized scientist both in KhNMU and among the world medical community. Organizes and coordinates international research projects on the strategy of containment of antibiotic resistance, prevention of infections related to medical care, mathematical modeling of epidemic processes of infectious and non-infectious human pathology. Constantly participates in scientific - practical conferences, symposia, congresses, including international ones, has about 500 published scientific works, 12 patents and certificates for registration of copyright to a work. Collaborates with practical health care institutions and scientists from Ukraine, Moldova, Lithuania, Georgia, the United States, and the National Public Health Agency of Sweden. Constantly improves pedagogical skills, actively involves applicants for higher education in scientific activities. In practical classes he creates a friendly, creative atmosphere, uses modern teaching methods.

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Information about consultations: face-to-face consultations: Wednesday 15.00-17.00, room Department of Epidemiology;

Location - Kharkiv, street Trinklera, 12

Discipline page in Moodle: no

Teacher Makarova Victoria Ivanovna

Information about the teacher Makarova Victoria Ivanovna, graduated from Kharkiv State Medical University in 1998 with a degree in "Medicine", underwent an internship in "Epidemiology", studied in graduate school at the Department of Epidemiology of KhNMU, since 2011 works as an assistant at the Department of Epidemiology qualification category in the specialty "Epidemiology/ She is studying for a master's degree in" Public Administration ". Actively engaged in research, is a participant in research projects with international participation, has published 83 scientific papers, has 2 utility model patents and 2 certificates of registration of copyright to the work. industrial enterprises on the prevention of infectious diseases and occupational pathology, preservation of the health of the professional team. Constantly improves their skills in re-certification cycles, thematic improvement courses, educational platforms, improves English language skills. Constantly improves pedagogical experience and pedagogical skills in master classes Creates a friendly, creative atmosphere, uses modern teaching methods in practical classes.

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Information about consultations: face-to-face consultations Friday 15.00-17.00, room Department of Epidemiology;

Location - Kharkiv, street Trinklera, 12

Teacher assistant of the department Klyuchnyk Inna Oleksiivna

Information about the teacher Klyuchnyk Inna Oleksiivna, graduated from Kharkiv State Medical University in 1995 with a degree in Medical Prevention, passed an internship in Epidemiology, has significant practical experience in the specialty, has the highest qualification category in Epidemiology. since 2020 he has been working as an assistant at the Department of Epidemiology of KhNMU. He has a secondary specialization in "Management and Health". Actively engaged in scientific activities, published 9 scientific papers. Cooperates with medical and preventive institutions on the implementation of programs for infection control and hand hygiene of personnel, prevention of infectious diseases. Constantly improves his skills at thematic improvement courses, educational platforms, improves the level of English language proficiency. He constantly improves his pedagogical experience and pedagogical skills at master classes, trainings and lectures. In the classes he uses modern teaching methods with an emphasis on the practical component, creates a friendly and creative atmosphere. Professional interests - epidemiology, infectious diseases, microbiology, virology, parasitology, high school pedagogy.

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Information about consultations: face-to-face consultations: Wednesday 15.00-17.00, room Department of Epidemiology;

Location - Kharkiv, street Trinklera, 12.

Teacher Raylyan Marina Vladimirovna

Information about the teacher Raylyan MV In 2006 she graduated from Kharkiv State Medical University with a degree in Medical Prevention and qualified as a physician (HA №30112199 dated June 30, 2006).

After graduating from the university she was accepted to the Ordzhonikidze district sanitary-epidemiological station in Kharkiv as an intern in epidemiology for internship, in 2007 she was transferred to the position of an epidemiologist. In Ordzhonikidze district SES she worked until 21.12.2012, from January 2013 she was transferred to the position of epidemiologist of the epidemiological surveillance department of the Kharkiv city department of the Main Department of the State Sanitary and Epidemiological Service in Kharkiv region, from 05.12.2013 she was transferred to the position of chief specialist of the department. Kharkiv City Department of the Main Department of the State Sanitary and Epidemiological Service in Kharkiv region, as the winner of the competition. On December 5, 2013, the oath of a civil servant was taken, on February 5, 2014, 13 ranks of civil servants were awarded. On 04.05.2016 she was transferred to the Kharkiv city branch of the State Institution "Kharkiv Regional Laboratory Center of the Ministry of Health of Ukraine" to the position of a doctor-epidemiologist of the department of organization of epidemiological research. Since October 24, 2016 I have been working as an assistant at the Department of Epidemiology of KhNMU. I have the first qualification category in the specialty "Epidemiology" since November 3, 2016 №428-k. I teach the following disciplines: "Epidemiology", "Internal Medicine with Epidemiology", "Clinical Epidemiology", "Military Epidemiology with Emergency Epidemiology". In 2018 she received her second higher education - Master's Diploma M 18 № 113764 National Technical University "KhPI", specialty "Educational, Pedagogical Sciences" from 21.12.2018.

I am constantly improving my skills. Professional interests: epidemiology, microbiology, infectious diseases.

Contact phone and E-mail of the teacher 068-611-42-00, email [mv.railian@knmu.edu.ua](mailto:mv.railian@knmu.edu.ua)

Information about consultations: face-to-face consultations: Thursday 15.00-17.00, room Department of Epidemiology;

Location - Kharkiv, street Trinklera, 12

The teacher is an assistant of the department Polyvyanna Yuliya Ivanivna

Information about the teacher Polyvyanna YI, in 2003 graduated from Kharkiv National Medical University with a degree in "medical prevention". From 2003 to 2004 on the basis of KhMAPO and Kominternovsky district SES I passed an internship on a specialty "microbiology and virology". In 2004-2009 she was accepted to the Comintern district SES as a bacteriologist. From 2009 to 2011 she worked as a bacteriologist in the bacteriological laboratory of HOPTD №1. From 2011 to 2013 she worked as a microbiologist in the laboratory of the Kharkiv Pharmaceutical Company "People's Health". From 2013 to 2014 she worked as a bacteriologist in the bacteriological laboratory of the Regional Clinical Infectious Diseases Hospital, and from 2014 to 2015 she worked as the head of the clinical diagnostic laboratory of this medical institution. Courses: 2009 - 4-month specialization courses in bacteriology on the basis of KhMAPO; 2009 - monthly pre-certification cycle in bacteriology on the basis of KhMAPO; 2009 - assignment of the second category in bacteriology; 2014 - monthly pre-certification cycle in bacteriology on the basis of KhMAPO; 2014 - assignment of the first category in bacteriology. Polyvyanna YI is constantly improving his scientific and pedagogical skills. Received a certificate in English level C1 international standard from iTEP Academic-Plus Exam in August 2019.

Contact phone 067-318-38-08 Email [yy.polyvianna@knmu.edu.ua](mailto:yy.polyvianna@knmu.edu.ua)

Information about consultations: face-to-face consultations: Monday 15.00-17.00, room Department of Epidemiology;

Location - Kharkiv, street Trinklera, 12

Teacher Semerenska Tetyana Ivanivna

Information about the teacher Semerenska T.I.graduated from Kharkiv National Medical University in 2009 with a degree in Medical Prevention. From 2009 to 2010 on the basis of the Kharkiv Medical Academy of Postgraduate Education and the Kharkiv Regional SES she passed an internship in the specialty "epidemiology". In 2010-2012 she was admitted to the Ordzhonikidze District Sanitary and Epidemiological Station as an epidemiologist. From 2013 to 2016 she worked as an epidemiologist at the State Institution "Kharkiv Regional Laboratory Center of the Ministry of Health of Ukraine", the department of epidemiological research of the Kharkiv city branch. Courses: 2015 - monthly internship course and thematic improvement courses "Military Hygiene" on the basis of KhMAPO; 2016 - thematic improvement "Epidemiology and prevention of infections associated with the provision of medical care" on the basis of KNMU. Additional education: 2013 Kharkiv Humanities University "People's Ukrainian Academy", Faculty of Postgraduate Education, awarded the qualification "Translation Specialist" (English);

2020 Kharkiv National Medical University, specialty "Educational Pedagogical Sciences", was awarded the qualification "Teacher of Higher Education".

She was trained in advanced training courses for teachers of higher education "School of Young Teachers" in 2016 - 2017 on the basis of KNMU. Semerenska T.I. constantly improves his scientific and pedagogical skills.

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Information about consultations: classroom consultations: Wednesday 15.00-17.00, rooms of Department of Epidemiology;

**General information about the discipline.**

1. Description of the discipline

Course – 6

Specific semester / academic year - 11th or 12th semester 2020 - 2021 academic year

The volume of the discipline - 120 hours (4,0 ECTS credits), including 20 hours - practical classes, 100 hours – self-work of the student

General characteristics of the discipline –the discipline «Urgent Problems of Immunoprophylaxis»

is compiled in accordance with the Standard of Higher Education of Ukraine of the second (master's) level, field of knowledge 22 "Health", specialty 222 "Medicine", specialization (s) - doctor.

The discipline is studied in the 6th year the study of the discipline is aimed at improving knowledge and practical skills in immunoprophylaxis of infectious diseases.

The role and place of the discipline in the system of training This discipline includes information on the relevance of immunoprophylaxis in the modern world, the peculiarities of the organization and conduct of planned and post-exposure immunoprophylaxis. In the process of studying the discipline, students acquire knowledge and skills for specific prevention according to an individual scheme. Students also gain knowledge of the basics of immunity and the mechanisms of the immune response to foreign agents, including vaccination. The dynamic introduction of a large number of immunobiological drugs into health care practice requires knowledge of the properties of certain vaccines, their advantages and disadvantages, features of application, features of transportation and storage. The organization and conduct of mass specific prevention is entrusted to the departments of public health and family physicians, so it is extremely important to know the planned and emergency immunoprophylaxis, the algorithm of actions of health workers during vaccination, its control and prevention of adverse events after immunization. Also, knowledge of the basics of immunology and immunoprophylaxis will be relevant in the organization of preventive and anti-epidemic measures in the centers of certain infectious diseases, to improve the epidemic situation and achieve a sustainable reduction in certain infectious diseases (according to WHO recommendations), elimination or eradication of certain infections and public health. I.

Types of educational activities of students according to the curriculum are: a) practical classes, b) self-work of students (SWS), c) individual tasks, in the organization of which teachers' consultations play a significant role. Thematic plans of practical classes, SWS and individual tasks ensure the implementation in the educational process of all topics that are part of the discipline. Possible types of SWS of students: preparation for practical classes and study of topics considered only in terms of self-student work, search and study of additional literature, creation of algorithms, structural and logical schemes, writing an abstract on one of the recommended topics and defending it in practice, writing a review of a scientific article followed by a report on practical classes.

**2. The purpose and tasks of the discipline**

**2.1.** **The purpose of studying the discipline** «Urgent Problems of Immunoprophylaxis» is improvement of theoretical knowledge and practical skills on specific prevention of infectious diseases, organization and conduct of preventive vaccinations.

**2.2. The main tasks of studying the discipline** «Urgent Problems of Immunoprophylaxis» 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 a person's health that requires specific prevention

**The student must know:**

1. Normative documents in the field of immunoprophylaxis;
2. Scientific bases of immunoprophylaxis;
3. Types of immunobiological drugs used to create artificial immunity;
4. Immunoprophylaxis of certain infectious diseases;
5. Types of plans and sequence of planning preventive and anti-epidemic measures;

**The student must be able to:**

1. Carry out the selection of contingents to be routinely vaccinated against mandatory infectious diseases;
2. Fill in the necessary documentation that accompanies vaccination;
3. Assess the presence of temporary or permanent contraindications to immunoprophylaxis;
4. Predict the possibility of adverse post-vaccination events and complications and conduct their expert assessment and timely prevention of such events;
5. Evaluate the effectiveness of immunoprophylaxis;
6. Organize and carry out immunoprophylaxis in the population, including in unstable and unfavorable epidemic situation.

**3. Discipline status** - the discipline is chosen.

The format of the discipline is 50 % on-line, 50 % off-line.

**4. Teaching methods.**

1. Methods of educational and cognitive activities (study and analysis of the main program sections of the discipline).

2. Methods of stimulating and motivating educational and cognitive activities (solving situational problems, performing interactive tasks, modeling the situation, etc.).

3. Methods of control (self-control, mutual control), correction (self-correction, mutual correction).

4. Methods of improving the effectiveness of educational and cognitive activities (deepening knowledge through self-work and research, participation in the work of scientific student groups, conferences, competitions, student scientific forums, etc.).

Teaching aids are presentations, video materials, methodical recommendations, abstracts, situational tasks.

**5. 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. European Health for All Database (access mode: [www.euro.who.int/en/home](http://www.euro.who.int/en/home)).
5. Official site of WHO <https://www.who.int/ru>, <https://www.who.int/countries/ukr/ru/>
6. Official site of CDC <https://www.multitran.com/c/M.exe?l1=1&l2=2&s=Centers+for+Disease+Control+>

**6. Prerequisites and co-requisites of the discipline** is based on the knowledge gained by students in the study of other basic disciplines - medical biology, microbiology, virology and immunology, epidemiology and evidence-based medicine, infectious diseases, biostatistics, public health medicine and integrates with these disciplines;

1. **The content of the discipline**

**Lecture topics**

According to the curriculum, lectures are not provided.

**Topics of practical classes**

|  |  |  |
| --- | --- | --- |
| **Practical**  **class №** | **Topics of practical classes** | **Hours** |
| 1 | History of vaccination. Strategic plans for immunization of certain infectious diseases as the basis of public health. Elimination and eradication of certain infectious diseases, problems and perspectives. Scientific fundamentals of immune prophylaxis. The concept of immunity, types of immunity, inborn and acquired immunity. Immune response, types of immune response, immune response stages. | 5 |
| 2 | Medical immunobiological drugs (MIBD) for specific prophylaxis of infectious diseases. The classification of MIBD, types of MIBD, their advantages and disadvantages. Features of manufacturing, transportation and storage of MIBD. The concept of the "cold chain". MIBP for the creation of artificial active and artificial passive immunity. Features of application, technique of vaccination . | 5 |
| 3 | Planned Immunoprophylaxis of Infectious Diseases. Schedule of prophylaxis vaccinations. Features of vaccination against the most actual infectious diseases (meningococcal disease, pneumococcal disease, viral hepatitis A, influenza). Features of vaccination of person who have temporary contraindications and on an individual scheme. Urgent post exposed prophylaxis. | 5 |
| 4 | Precautions and Contraindications and special consideration. Unwanted post-bleeding events and complications of their detection, registration, investigation of unwanted post-bleeding events and complications, causes of occurrence and prevention. Defense of individual project. Final control. | 5 |
| Total hours of the practical classes | | 20 |

**Self-work topics**

|  |  |  |
| --- | --- | --- |
| № | Topics | hours |
| 1 | Preparation for practical classes - theoretical training and development of practical skills | 16 |
| 2 | Performing individual course project | 10 |
| 3 | Relevance of immunoprophylaxis. Problems of overcoming the loss of public confidence during vaccinations. | 10 |
| 4 | Organization and implementation of planned and emergency specific prevention. | 10 |
| 5. | Characteristics of medical immunobiological drugs. | 10 |
| 6. | Rules of transportation and storage of medical immunobiological drugs. | 10 |
| 7. | Organization and implementation of specific prevention against smallpox, typhoid fever, viral hepatitis A, cholera, pneumococcal infection, meningococcal infection, influenza, oral viral infection, yellow fever, plague, rabies | 10 |
| 8. | Emergency specific prevention of rabies, tetanus, diphtheria, measles. | 10 |
| 9. | Contraindications to vaccination. Vaccination of people with disabilities. | 10 |
| 10. | Preparation for final control | 4 |
| **Total** | | ***100*** |

1. **Discipline policy and values**

Academic expectations from students

Discipline requirements

It is expected that male and female students will attend all practical classes and complete all sections of self-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 students have questions, you can contact the teacher in person or by e-mail, which the teacher will provide in the first practical lesson.

During the practical classes, students are recommended to keep a synopsis of the lesson and keep a sufficient level of silence. Asking questions to the teacher is perfectly normal.

Students must arrive on time, not be late, they must be dressed in a medical gown at class, 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 students to follow the rules of good behavior 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 lesson (see Academic expectations of students).

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.

Academic Integrity Policies

The Department of Epidemiology maintains zero tolerance for plagiarism. Male and female students are expected to constantly raise their awareness of academic writing. The first lessons will provide information on what to consider plagiarism and how to properly conduct research and scientific research.

Policy for people 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 discipline - active participation in the discussion in the audience, students 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 personality 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. Students are expected to be interested in participating in city, national and international conferences, competitions and other events in the subject profile

Incentives and penalties. Additional points are credited for the commission of 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.

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.

Procedure for informing about changes in the syllabus - the updated syllabus will be posted on the website of the educational institution with the note "updated".

**Evaluation policy**

When studying the discipline, the current and final semester control is used. Also, there is a mandatory control of the assimilation of educational material of the discipline, assigned to self-work.

**Current control** (assimilation of certain topics) is carried out in the form of oral interviews, discussions, testing, conversations of students on predetermined issues, in the form of speeches of higher education students with reports when discussing educational issues in practical classes.

To assess the self-work of students, an alternative is offered (optional): traditional types of tasks: writing a test, abstract and solving situational problems, solving problem situations, providing practical recommendations or creative types: preparing a multimedia presentation, processing educational literature, etc.

**The final semester control** in the discipline is a mandatory form of control of academic achievements of higher education students. It is performed orally. The terms of the final semester control are set by the schedule of the educational process, and the amount of educational material that is submitted for the final semester control is determined by the program of the discipline.

The total number of rating points for the study of the discipline for the semester is calculated as the sum of points obtained by the results of the current control and points obtained by the results of the final semester control. The maximum amount of points for the semester is 200 points, the minimum - 120 points.

**Control methods**

1. Method of oral control of theoretical material (survey, discussion).

2. Methods of written control (answers to questions, problem solving, test control).

3. Methods of control of practical skills and abilities (solving situational problems, solving problem situations, providing practical recommendations).

**Form of assessment of students' knowledge**

The form of final control of academic performance in the discipline is a test.

**Assessment of current learning activities**

Carried out in accordance with the "Instructions for the evaluation of educational activities under the European credit transfer system for the organization of the educational process" (order of the Kharkiv National Medical University from 22.02.2016 № 52.

**Assessment of current learning activities**

When assessing the mastery of each subject of the discipline, the student is graded on a national 4-point scale: "unsatisfactory", "satisfactory", "good", "excellent".

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 disciplines 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 | **Less than 3** | **Not enough** |
| 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 discipline**

The course " Urgent Problems of Immunoprophylaxis" is studied during the 1st semester. Discipline ends with a test.

**Discipline assessment technology** (Table 6 of the "Instructions for assessing the educational activities of students").

Assessment of the results of the study of disciplines is carried out directly during the test. The grade in the discipline is defined as the sum of scores on IPA, 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 6.

Table 6

**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 | А | excellent |
| 160–179 | В | good |
| 150–159 | С | good |
| 130–149 | D | satisfactory |
| 120–129 | E | satisfactory |
| Less than 120 | F, Fx | unsatisfactory |

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

After completing the study of the discipline 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 discipline forms: U-5.03A - credit.

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

Students must complete all missed classes and unsatisfactory grades. At the same time, working off of classes within one calendar month from the moment of omission 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;

**9. 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. Specific prevention of tuberculosis.

28. Specific prevention of diphtheria.

29. Specific prevention of tetanus.

30. Specific prevention of whooping cough.

31. Specific prevention of polio.

32. Specific prevention of viral hepatitis B.

33. Specific prevention of hemophilic infection type b.

34. Specific prevention of measles.

35. Specific prevention of rubella.

36. Specific prevention of mumps.

37. Specific prevention of certain infectious diseases (recommended).

38. Types of immunoprophylaxis (planned, post-exposed, according epidemiological indicates)

39. Post-exposure specific prophylaxis of tetanus.

40. Urgent post-contact specific rabies prevention.

41. Urgent post-exposure prevention of infections that are epidemic in the country.

42. Evaluation of the effectiveness of immunoprophylaxis (epidemiological, clinical,

immunological, economic).

43. General principles of prevention of adverse events after vaccination.

44. Contraindications to vaccination (temporary and permanent).

Individual tasks in the discipline "Urgent Problems of Immunoprophylaxis" are the implementation of individual educational and research tasks to study the manifestations of the epidemic process and the epidemic situation for a particular infectious disease, which is guided by specific prevention, features of organization and conduct of mass and emergency immunoprophylaxis, problems and ways to solve them, creating and presenting the results of research at practical classes and scientific - practical conferences of various levels (oral report, publication of abstracts, articles in professional journals, poster reports).

**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.

Guarantor of the educational program prof. N.G. Rindina

Head Department of Epidemiology prof. T.O. Chumachenko