MINISTRY OF HIGHER EDUCATION, SCIENCE AND INNOVATIONS OF THE REPUBLIC OF UZBEKISTAN

MINISTRY OF HEALTH OF THE REPUBLIC OF UZBEKISTAN

TASHKENT STATE MEDICAL UNIVERSITY

APPROVED
First Vice-Rector for Academic Affairs
of Tashkent State Medical University
N.Khaitov
2025

MODULE PROGRAM ON EPIDEMIOLOGY, MILITARY EPIDEMIOLOGY

Field of knowledge: 900 000 - Health care and social affairs
Field of education: 910 000 - Healthcare
Direction of education: 60910400 - Medical Preventive Care

TASHKENT – 2025

Module code EHE16-1018		**Academic year** 2023/2024; 2024/2025 2025/2026	**Semester** 6-7-8-9-10	**Credit amount** 18	
Module Type Mandatory		**Module language** English		**Weekly class hours** 45 days 6 hours	
	Module Name	**Auditorium sessions (hours)**		**Independent education (hours)**	**Total workload (hours)**
1.	Epidemiology, military epidemiology	270		270	540
2.	**I. Content of the subject:** **Epidemiology** The curriculum is developed on the basis of the State Educational Standard of the Republic of Uzbekistan and the qualification requirements for the bachelor's degree program. The Epidemiology module provides medical university students with the necessary knowledge to systematically organize disease prevention, proper nutrition, and increased physical activity in the protection of public health, as well as to widely promote a healthy lifestyle. In other words, it creates opportunities to acquire the knowledge required for preventing diseases, implementing prophylaxis, early detection, and applying these skills in practice, thereby laying the foundation for future physicians to organize epidemiological care for the population. By the end of achieving the goals and objectives of the course, the student integrates the knowledge and practical skills acquired through horizontal and vertical integration processes and becomes a competent, competitive, independently thinking general practitioner. This subject is based on the knowledge acquired from the modules of medical biology and genetics, human anatomy, normal physiology, bio-organic, bio-inorganic and biological chemistry, microbiology, general hygiene, and infectious diseases included in the curriculum. Through the development of epidemiological thinking, it trains students to protect the population from epidemics and carry out epidemiological surveillance. **Military epidemiology** The Armed Forces of the Republic of Uzbekistan operate as an important guarantee of national security, state sovereignty, territorial integrity, and the peaceful life of its population. Educating the younger generation in the spirit of patriotism, being able to remain resilient and act decisively in various extreme conditions, taking on leadership roles when necessary, preventing the occurrence and spread of various diseases among military personnel, and teaching soldiers what measures to follow to avoid these diseases are of great importance.. During wartime, the medical service performs the most important tasks of providing timely medical assistance to the wounded and sick on the battlefield and				

at the stages of medical evacuation.

For the medical service to effectively carry out these tasks, all medical personnel must thoroughly understand modern methods of conducting combat operations, be well-versed in combat pathology, and be able to organize and implement treatment-evacuation, sanitary-hygienic, and anti-epidemic measures, as well as measures for protecting military personnel from the enemy's weapons of mass destruction.

They must also possess sufficient organizational skills.

This module is based on the knowledge acquired within the academic curriculum in medical biology and genetics, human anatomy, normal physiology, bioorganic, bioinorganic, and biological chemistry, microbiology, general hygiene, and infectious diseases.

It develops epidemiological thinking in students and teaches them to carry out epidemiological surveillance and protect military personnel from epidemics.

The purpose of teaching the subject is to develop students' knowledge, skills, and competencies based on the anatomical and physiological characteristics of children of different ages, methods of examining organs and systems, and the semiotics of major diseases.

Military Epidemiology. The aim is to teach students the required theoretical and practical aspects of military epidemiology in order to perform functional duties assigned to them; to cultivate patriotism in future generations; to develop the ability to remain composed and act decisively in various extreme conditions.

The tasks of the subject include: teaching students the anatomical and physiological characteristics of children's organs; providing indicators of physical and psychomotor development in children of different ages; teaching communication with healthy and sick children and their parents and collecting medical history; teaching objective examination methods and forming practical skills; teaching the symptoms and syndromes of major diseases in children; teaching the main principles of rational nutrition in healthy children.

Military Epidemiology. Based on modern scientific and practical achievements and using the most advanced teaching methods, the course aims to provide theoretical training in military epidemiology; to train specialists capable of fulfilling their duties according to military conditions; to teach how to conduct epidemiological investigations and sanitary-epidemiological reconnaissance in outbreak areas and monitor territories where combat operations are taking place; to identify infection sources, routes, and factors of infectious diseases at early stages; to provide instructions for conducting sanitary-cleansing measures in outbreak

	areas; to apply disinfectants, sterilization methods, and technical equipment necessary for disinfection and sterilization; to understand the procedures of action when bacteriological weapons are used, including putting on and removing special protective equipment; to prepare reports and official records for sanitary-epidemiological inspection of various military facilities; to master the characteristics of conducting preventive and anti-epidemic measures during quarantine and highly dangerous infections; to take samples for special biological indication (detection), fill out relevant documents, and organize their transportation to epidemiological laboratories; to promote a healthy lifestyle; and to form the competencies needed. The module prepares military medical personnel to meet the qualification characteristics required in the primary healthcare system and to fulfill the requirements of the specialty "Medical and Preventive Affairs".
3.	**II. Main Theoretical Part** **II.I. The subject includes the following topics:** **Epidemiology:** **6th semester:** **1st Topic.** Epidemiological approach in the study of infectious diseases. (The role of epidemiology in the medical education system and among modern medical sciences. The history of the development of epidemiology.) **2nd Topic.** The doctrine of the epidemiological process. Epidemiological investigation methods. Forms of the epidemic process and their interpretation. Mechanisms of transmission of infectious diseases and theories of natural foci. The theory of self-regulation of the parasitic system. Classification of infectious diseases and evolutionary development of pathogens. **3rd Topic.** Epidemiological importance of animals and arthropods that transmit disease-causing agents. Sanitary–veterinary measures in zooanthroponotic diseases. **4th Topic.** Definitions, types, and methods of disinfection, disinsection, deratization, and sterilization. Disinfection, disinsection, deratization, and sterilization. The importance of these measures in preventing infectious diseases. **5th Topic.** Immunoprophylaxis. Preventive vaccination. Vaccination schedule and comparison with foreign literature. Organization of vaccination activities in family polyclinics. Quality and effectiveness of immunization activities at the primary level of the healthcare system. **Epidemiology:** **7th semester:** **Topic 1:** Classification and specific characteristics of intestinal infections. Etiology and epidemiology of dysentery, paratyphoid A and B. Organization and implementation of epidemiological control over dysentery and bacterial carriers, and preventive measures for employees in public catering establishments.

Topic 2: Epidemiology and prevention of salmonellosis. Manifestation of the epidemic process in salmonellosis. Epidemiology and prevention of shigellosis. Organization and content of epidemiological control over shigellosis.

Topic 3: Epidemiology and prevention of poliomyelitis. Organization of epidemiological control over poliomyelitis.

Topic 4: Classification of viral hepatitis. Epidemiology and prevention of hepatitis A and E. Organization of epidemiological control over hepatitis A and E. Epidemiology and prevention of hepatitis B, D, and C. Organization of epidemiological control over hepatitis B and D.

Topic 5: Epidemiology and prevention of cholera. Organization and implementation of epidemiological control over plague. Organization of anti-epidemic measures in a cholera outbreak. Responsibilities of the district physician when a cholera patient is identified.

Topic 6: Classification of helminthiasis. Epidemiology and prevention of geohelminthiasis and contact helminthiasis. Organization of epidemiological control over enterobiasis and ascariasis. Epidemiology and prevention of biohelminthiasis. Epidemiology, prevention, and epidemiological control of malaria. Etiology, clinical presentation, and diagnosis of malaria. "National strategy for malaria elimination in the Republic of Uzbekistan."

Military Epidemiology.

8th Semester:

1- Topic: Introduction to Military Epidemiology. Patterns of epidemic development among military units. Branches and functions of military epidemiology. Theoretical and methodological foundations of military epidemiology. Mechanisms of epidemic process development in the armed forces.

2- Topic: System of anti-epidemic measures conducted in military units. Forces and resources involved in organizing and implementing anti-epidemic measures among troops.

3- Topic: Bacteriological (Biological) Weapons. Definition of bacteriological weapons. History of use. Combat characteristics and description of bacteriological weapons. Bacterial formulations, their classification, methods of application, and delivery systems. Mechanisms of artificially induced epidemic development and levels of manifestation.

Epidemiology 9-10th Semester:

1- Topic: General epidemiological classification of respiratory infections. Epidemiology and prevention of influenza, ARVI, and atypical pneumonia.

2- Topic: Etiology, epidemiology, and prevention of coronavirus infections.

3- Topic: Epidemiology, prevention, and epidemiological control of diphtheria.

4- Topic: Epidemiology, prevention, and organization of epidemiological control of measles and rubella.

5- Topic: Epidemiology, prevention, and epidemiological control of meningococcal infections.

6- Topic: Epidemiology of nosocomial infections. Epidemiology of hospital-acquired infections in surgical departments.

7- Topic: Epidemiology and prevention of HIV/AIDS infections.

	8- Topic: Epidemiology, prevention, and epidemiological control of tuberculosis. **9- Topic:** Retrospective epidemiological analysis of infectious diseases. Operational epidemiological analysis. **10- Topic:** Classification of zoonotic infections. Epidemiology, prevention, and epidemiological control of rabies, anthrax, and brucellosis. **11- Topic:** Epidemiology, prevention, and epidemiological control of plague. **12- Topic:** Epidemiology, prevention, and epidemiological control of typhus and Brill's disease. **13- Topic:** Epidemiology, prevention, and epidemiological control of hemorrhagic fevers.
4.	**III. Guidelines and Recommendations for Practical Training Sessions:** The following topics are recommended for practical training sessions: **Epidemiology:** **6th semester:** **Topic 1.** Teaching the importance of epidemiology as a science that studies all pathological processes. The doctrine of the epidemiological process. Teaching the mechanism of the development of the epidemiological process. Forms of the epidemic process and their interpretation. **Topic 2.** The system and content of epidemiological investigation methods, the main concepts of epidemiological diagnostics. Teaching analytical and experimental epidemiological methods. **Topic 3.** Teaching the mechanisms of transmission of infectious diseases and the theories of natural foci. **Topic 4.** Organizing anti-epidemic activities among the population in emergency situations. Teaching epidemiological investigation of outbreak sites. **Topic 5.** Organizing disinfection services among the population. Structure and functioning of the disinfection department, stages of disinfection. Sanitary cleaning procedures. Teaching chamber disinfection methods. **Topic 6.** Familiarization with the activities of the disinfection department. Chamber disinfection, deratization, disinsection. Monitoring the quality and effectiveness of sterilization processes in DPMs (disinfection and prevention stations). Familiarization with the work of the sanitary-epidemiological service. **Topic 7.** The theory of self-regulation of the parasitic system. Classification of infectious diseases and evolutionary development of pathogens. **Topic 8.** Teaching the epidemiological significance of animals and arthropod vectors transmitting disease-causing agents (mosquitoes, small insects, lice, fleas, and ticks). Teaching the epidemiological importance of natural focal diseases. **Epidemiology** **7th semester:** **1st topic:** Classification and specific characteristics of intestinal infections. Organization of epidemiological surveillance of intestinal group infections. Etiology and epidemiology of typhoid fever and paratyphoid A and B. Organization and implementation of epidemiological control over typhoid fever

and bacterial carriers, measures applied to employees of public catering establishments.

2nd topic: Epidemiology and prevention of shigellosis. Organization and content of epidemiological surveillance over shigellosis diseases.

3rd topic: Teaching the organization of epidemiological surveillance in acute intestinal infections. Studying the epidemiology and organization of epidemiological surveillance of intestinal infections.

4th topic: Epidemiology and prevention of escherichiosis. Epidemiology and prevention of enterovirus infections.

5th topic: Epidemiology and prevention of rotavirus infections.

6th topic: Epidemiology and prevention of poliomyelitis. Organization of epidemiological surveillance over poliomyelitis.

7th topic: Classification of viral hepatitis. Epidemiology and prevention of hepatitis A and E. Organization of epidemiological surveillance over viral hepatitis A and E.

8th topic: Epidemiology and prevention of hepatitis B, D, and C. Organization of epidemiological surveillance over viral hepatitis B, D, and C.

9th topic: Epidemiology and prevention of cholera. Organization and implementation of epidemiological surveillance in cholera. Organizing anti-epidemic measures in the cholera outbreak. Responsibilities of the district physician when a cholera patient is detected.

10th topic: Anti-epidemic measures at the Center for the Prevention of Quarantine and Highly Dangerous Infections.

Military Epidemiology

8th semester:

Topic 1. Introduction to the military epidemiology module. Patterns of epidemic process development among military personnel. Sections and tasks of military epidemiology. Mechanism of epidemic process development in the armed forces.

Topic 2. The system of anti-epidemic measures carried out in military units. Forces and means involved in conducting and organizing anti-epidemic measures among troops. Studying the role of medical services and sanitary-epidemiological institutions of the armed forces in organizing anti-epidemic activities.

Topic 3. Bacteriological (biological) weapons. Definition of bacteriological weapons. History of use. Combat characteristics and description of bacteriological weapons. Bacterial formulations, their classification, methods of application and delivery systems. Studying the mechanisms and stages of development of artificially induced epidemic processes.

Topic 4. Sanitary-epidemiological reconnaissance. Bacteriological reconnaissance. Fundamental principles and methods of conducting sanitary-epidemiological reconnaissance. Main tasks of bacteriological reconnaissance. Special and non-special indication. Studying the stages of conducting special indication.

Topic 5. Organizing the protection of troops against epidemic threats and biological weapons. Concept of protecting troops from biological weapons. The

role of commanders, headquarters, and medical service personnel in protecting military personnel from biological weapons.

Epidemiology 9-10 th semester:

1. Topic: Classification of helminthiases. Epidemiology and prevention of geohelminthiases and contact helminthiases.

2. Topic: Epidemiology and prevention of biohelminthiases.

3. Topic: Organization of epidemiological surveillance over enterobiasis and ascariasis.

4. Topic: Epidemiology, prevention, and epidemiological surveillance of malaria. Etiology, clinical features, diagnosis of malaria, and the *National Strategy for Malaria Elimination in the Republic of Uzbekistan*.

5. Topic: Epidemiology and prevention of influenza, acute respiratory viral infections (ARVI), and atypical pneumonia.

6. Topic: Organization and content of epidemiological surveillance over diphtheria.

7. Topic: Organization and content of epidemiological surveillance over pertussis. Study of specific features of epidemiological investigation in scarlet fever outbreaks.

8. Topic: Organization and content of epidemiological surveillance over measles. Organization and content of epidemiological surveillance over rubella.

9. Topic: Epidemiology, prevention, and epidemiological surveillance of meningococcal infection.

10. Topic: Organization and implementation of epidemiological surveillance over epidemic mumps.

11. Topic: Infection caused by Varicella Zoster Virus (chickenpox and shingles).

12. Topic: Epidemiology and prevention of hospital-acquired infections. Surgical site infections, bloodstream infections, nosocomial pneumonias, nosocomial salmonellosis, and urinary tract infections.

13. Topic: Epidemiology and prevention of streptococcal infections.

14. Topic: Organization and content of epidemiological surveillance over pulmonary and cutaneous forms of tuberculosis. Organization and content of epidemiological surveillance over gastrointestinal and bone forms of tuberculosis. Epidemiological surveillance of leprosy.

15. Topic: Epidemiology and prevention of HIV/AIDS.

16. Topic: Epidemiology and prevention of rabies.

17. Topic: Epidemiology and prevention of tetanus.

18. Topic: Epidemiology and prevention of anthrax.

19. Topic: Epidemiology and prevention of Qu fever.

20. Topic: Epidemiology and prevention of typhus and Brill–Zinsser disease.

21. Topic: Epidemiology and prevention of plague. Etiology, diagnosis, epidemiology, and control measures for louse-borne relapsing fever.

22. Topic: Epidemiology and prevention of hemorrhagic fevers.

Organization of Practical Classes

Practical classes are conducted separately for each academic group in classrooms equipped with multimedia devices. Active and interactive teaching methods are

	used during sessions, including *project-based learning*, *case studies*, and other modern educational technologies. Handout materials and information are delivered using multimedia tools.
5.	**IV. Practical Skills:** **Epidemiology** **6th Semester:** **1.** Forms of using insecticides. Methods used for rodent control. **2.** Development of a preventive measures plan. **3.** Development of an anti-epidemic measures plan. **4.** Treatment of an epidemic focus using an Automax device. **5.** Preparation of a working solution of chloramine. **6.** Preparation of disinfectant solutions for current disinfection. **7.** Procedures for transporting bacteriological materials and maintaining the cold chain **Epidemiology** **7th Semester:** **1.** Use of bacteriophages in a typhoid fever outbreak. **2.** Organization and implementation of anti-epidemic measures in a cholera outbreak. **3.** Treatment of an epidemiological focus using a hydrosprayer; preparation of disinfectant solutions for current disinfection. **4.** Measures conducted for individuals who are ill with cholera and for vibrio carriers, as well as for those who had contact with them. **Epidemiology 9-10th Semester:** **1.** Use of anti-plague protective clothing (protective suit). Procedures and rules for putting on the anti-plague suit. **2.** Procedure for reporting when a patient is suspected of having a quarantine infection. **3.** Providing first aid to individuals bitten by animals and implementing anti-epidemic measures. **4.** Implementation of anti-epidemic measures. **5.** Developing a comprehensive plan of measures for the sanitary protection of the territory against the introduction and spread of quarantine infections. **6.** Preventive and anti-epidemic measures.
6.	**V. Independent study and self-directed assignments** Recommended Topics for Independent Study **Epidemiology:** **6th Semester:** **1.** The science of Epidemiology, its role among medical sciences, and its importance in medical education and practical public health. **2.** Epidemiological investigation methods. The characteristics of the modern epidemiological method. **3.** Factors of the epidemic process. Mechanism of epidemic process development: mechanisms of transmission of infectious diseases, the theory of

natural foci, and the theory of self-regulation of the parasitic system.

4. Methods and means of disinfection, disinsection, deratization, and sterilization. Organization of disinfection services among the population.

5. Immunoprophylaxis. Specific and emergency prophylactic vaccination tools. The importance of immunoprophylaxis in infectious diseases.

Epidemiologiya:

7th Semester:

1. Classification and specific characteristics of intestinal infections.
2. Etiology and epidemiology of typhoid fever, paratyphoid A and B.
3. Epidemiology and prevention of salmonellosis.
4. Classification of viral hepatitis. Epidemiology and prevention of hepatitis A and E.
5. Anti-epidemic measures at quarantine and highly dangerous infection prevention centers.
6. Epidemiology and prevention of plague. Duties of the local doctor when a plague patient is identified.
7. General overview of sapronotic diseases.
8. Epidemiology and prevention of geohelminth and contact helminth infections.
9. Biogelminth infections. Epidemiology and prevention of echinococcosis.
10. Epidemiology and prevention of malaria.

Military Epidemiology:

8th Semester:

1. **Patterns of epidemic processes in military units.** Sections and functions of military epidemiology. Mechanisms of epidemic process development in the armed forces.
2. **Forces and means involved in organizing and conducting anti-epidemic measures among troops.** The role of medical services and sanitary-epidemiological institutions in organizing anti-epidemic measures.
3. **Combat aspects and characteristics of bacteriological (biological) weapons.** Bacterial formulations, their classification, methods of application, and delivery systems. Mechanisms of development and levels of manifestation of artificially induced epidemic processes.
4. **Sanitary-epidemiological reconnaissance and bacteriological reconnaissance.** Fundamental principles and methods of sanitary-epidemiological reconnaissance. Main tasks of bacteriological reconnaissance. Special and non-special indications. Determining the stages of special indications.
5. **Organizing protection of troops against epidemics and the effects of bacteriological weapons.** Concept of protecting troops from bacteriological weapons. Roles of commanders, staffs, and medical personnel in protecting personnel from bacteriological weapons.

6. **Measures to be taken in case of the threat or use of bacteriological weapons by the enemy**, and actions to eliminate the consequences of their use.

Epidemiology:

9-10th Semester:

1. Modern features of the epidemiology and prevention of respiratory infections.
2. Main directions of respiratory infection prevention (general, personal, and special). Examples: COVID-19 and other infections.
3. The role of immunoprophylaxis in combating respiratory infections.
4. Influenza, COVID-19, viral hepatitis, and HIV/AIDS infections – challenges of the 21st century.
5. In treatment and prophylactic institutions (TPIs), combating infectious diseases and protecting the health of patients and medical staff as an integral part. Examples: COVID-19 and other infections.
6. Routes of infection introduction into treatment and prophylactic institutions. Hospital-acquired infections: sources, transmission pathways, and contributing factors. Etiological composition of nosocomial infections (NIs).
7. Potential role of medical staff in the spread of purulent-septic infections (PSIs).
8. Responsibilities and duties of physicians when a patient is identified or suspected of having quarantine or especially dangerous infections (Q/EDI).
9. Procedures for immediate reporting when a patient with Q/EDI is identified or suspected. Anti-epidemic measures for contacts at the Q/EDI epidemic focus.
10. Features of organizing and conducting preventive and anti-epidemic measures for quarantine and especially dangerous infections. Rules and procedures for wearing and removing protective clothing against plague.
11. Developing a comprehensive plan for containment (localization) and elimination (liquidation) of infectious diseases.
12. Roles and responsibilities of physicians and epidemiologists when a patient suspected of inhalation anthrax presents. Algorithm for epidemiological investigation.
13. Epidemiology, prevention, and epidemiological control of plague fever.
14. Epidemiology, prevention, and epidemiological control of tularemia.
15. Epidemiology, prevention, and epidemiological control of typhus and Brill's disease.
16. Improvement of preventive measures against pediculosis and rickettsioses.
17. Epidemiology, prevention, and epidemiological control of quarantine and especially dangerous infections.
18. Epidemiology, prevention, and epidemiological control of plague.
19. Epidemiology, prevention, and epidemiological control of arboviral infections.

	20. Epidemiology, prevention, and epidemiological control of hemorrhagic fevers. **21.**Epidemiology, prevention, and epidemiological control of leishmaniasis. **22.**Mechanism of epidemic process development in leishmaniasis. **23.**Epidemiology and prevention of HIV/AIDS infections.
7.	**VI. Learning Outcomes (Developed Competencies)** As a result of mastering the course, the student: **Epidemiology:** **6th Semester:** • Fundamentals of epidemiology and the doctrine of the epidemic process; • History of the development of epidemiology in Uzbekistan; • The role of epidemiology in the medical education system and among modern medical sciences; • Methods of epidemiological investigation; • Understanding of non-communicable disease epidemiology; • Understanding the mechanism of infection, theories of natural foci of infectious diseases, and self-regulation in parasitic systems (knowledge); • Epidemiological classification of infectious diseases; • Epidemiological significance of insects and animals; • Familiarity with the work of the infectious diseases office; • Ability to organize and promote preventive and anti-epidemic measures (skills); • Knowledge of organizing preventive measures and epidemic control in the population, medical and preventive institutions, and epidemic foci; • Understanding the emergence of risk factors causing diseases and the ability to evaluate the reliability of assumptions; • Knowledge of immunization against infectious diseases, use of special prophylactic agents, their preparation, storage, and administration guidelines ("f-063/x", "f-5/x", "f-6/x"); • Ability to conduct epidemiological investigations in infectious disease epidemic foci and classify epidemic outbreaks of infectious diseases (competence). **Epidemiology:** **7th Semester:** • Use of bacteriophages for preventive purposes in typhoid fever foci; • Developing an anti-epidemic action plan in cholera foci; • Preparation of working solutions of chloramine; • Developing an anti-epidemic measures plan; • Collecting epidemiological anamnesis of infectious diseases; • Conducting epidemiological investigations in epidemic foci and understanding epidemic outbreaks of infectious diseases (knowledge); • Etiology, pathogenesis, clinical features, and epidemiology of common infectious diseases, principles of prevention, anti-epidemic measures, and methods to prevent diseases;

• Promotion of a healthy lifestyle;
• Understanding the main factors contributing to disease, identifying criteria, and applying them in practice (skills);
• General classification of intestinal infections, characteristics of their transmission, manifestation of epidemic processes, and the role of social and natural conditions in epidemic development;
• Features of disease incidence among urban and rural populations, epidemiological characteristics of intestinal infections in hospital settings, preventive and anti-epidemic measures, measures aimed at interrupting transmission, and sanitary-hygienic actions for epidemic control. Students should acquire competence in the epidemiology and prevention of the most common diseases, including practical epidemiological skills (competence).

Military Epidemiology – End of 8th Semester Learning Outcomes:

- Assess the sanitary-epidemiological conditions of troops and the territories in which they operate.
- Prepare reports and official protocols for sanitary-epidemiological inspections of military facilities.
- Implement measures during medical evacuation stages, including protection of personnel from bacteriological weapons.
- Train specialists capable of providing full-scale epidemiological support to military personnel, including conducting preventive and anti-epidemic measures in epidemic foci and extreme situations.
- Develop an understanding of epidemiological control in military units.
- Train specialists capable of successfully performing epidemiological, preventive, and professional duties.
- Prepare specialists proficient in clinical modules that include emergency medical care and military medical procedures.
- Equip military epidemiologists with a system of general and specialized knowledge and skills in public health, medical insurance, medical psychology, healthcare organization, and health economics to enable independent thinking and decision-making.
- Collect retrospective epidemiological data on infectious diseases and analyze the results.
- Analyze long-term morbidity dynamics, select reliable and convenient methods for assessing effectiveness and safety, implement them, and interpret the results.
- Provide medical-preventive care in situations requiring urgent intervention, timely identify illnesses, and implement corrective actions.
- Assist in conducting preventive medical examinations, dispensary services, follow-up, and medical control among military personnel.

- Develop algorithms for selecting vaccines and organize vaccination procedures to ensure effective and safe immunization.
- Organize the operation of healthcare institutions, ensure coordination between epidemiology and infectious disease departments, offices (cabinets), and laboratories, and evaluate the implementation of dispensary registration for military personnel.
- Possess clinical audit skills (including practical competencies) to improve the quality of medical care provided to military personnel.

Epidemiology:
9-10th Semester:

- Have knowledge of the general epidemiological classification of respiratory infections.
- Understand the epidemiology and prevention of influenza, acute respiratory viral infections (ARVI), and atypical pneumonia.
- Understand the epidemiology, prevention, and epidemiological control of diphtheria.
- Understand the epidemiology, prevention, and organization of epidemiological control for measles and rubella.
- Know the epidemiology, prevention, and epidemiological control of meningococcal infections.
- Be able to perform retrospective epidemiological analysis and operational epidemiological analysis of infectious diseases.
- Understand the classification of zoonotic infections, as well as the epidemiology, prevention, and epidemiological control of rabies, anthrax, and plague.
- Understand the epidemiology, prevention, and epidemiological control of plague.
- Have knowledge of the epidemiology, prevention, and classification of quarantine and particularly dangerous infections. (Knowledge)
- Be aware of the general epidemiology, etiology, pathogenesis, clinical features, and preventive principles of frequently occurring quarantine and highly dangerous infections, including measures to prevent bloodborne infections.
- Promote awareness of bloodborne infection prevention.
- Collect epidemiological data on bloodborne infections, determine the number of cases, analyze morbidity dynamics, perform regional analysis, analyze the composition of affected populations, identify high-risk groups, and formulate hypotheses regarding potential risk factors.
- Understand cohort studies for bloodborne infections, sources of errors in epidemiological investigations, ways to eliminate them, and methods for investigating infection foci and apply them in practice. (Skills)
- Understand the epidemiology and prevention of nosocomial (hospital-acquired) infections, including sources, main types, routes of spread, contributing factors, and etiological and epidemiological classification.

	• Know the epidemiology and prevention of bloodborne infections. • Know the epidemiology and prevention of pertussis. • Understand the mechanisms of epidemic development in respiratory infections, the epidemiological features and effectiveness of specific prophylaxis, etiology, pathogen characteristics, infection sources and transmission routes, and the epidemiological significance of different clinical forms. • Be able to implement anti-epidemic measures, including interventions directed at the source of infection and persons who had contact with patients, and possess relevant practical epidemiological skills. (Competence)
8.	**VII. Educational Technologies and Methods** • Interactive games • Seminars (logical reasoning, rapid Q&A sessions) • Group work • Presentations • Individual projects • Team projects and project defense
9.	**VIII. Requirements for Earning Credits:** To fully master the theoretical and methodological concepts of the subject, to accurately present the results of analyses, to independently reflect on the studied processes, to complete the tasks and assignments given for assessment, and to successfully pass written, oral, or test-based evaluations during interim and final assessments.
10.	**Basic literature** **1.** G.S.Matnazarova, O.M.Mirtazaev, N.S.Saidkasimova “Epidemiology” Textbook, Tashkent 2024 **2.** G.S. Matnazarova, O.M.Mirtazaev, N.S.Saidkasimova “Epidemiology” Textbook, Tashkent 2024 **Additional literature** **1.** Mirtazaev O.M., Zueva L.P., Matnazarova G.S. "Epidemiology" Textbook. Tashkent, "Musiqa" Publishing, “Renessans Press” LLC Printing Department, 2020. **2.** Mirtazaev O.M., Zueva L.P., Matnazarova G.S. Epidemiology. Textbook. Tashkent, "Ishonch" LLC, 2016. **3.** Briko N.I., Pokrovskiy V.I. "Epidemiology" Textbook. Moscow: "GEOTAR-Media", 2015. **4.** Mirtazaev O.M. and other co-authors. "Practical Guide for Epidemiology" – Tashkent. "Adabiyot Uchqunlari", 2015. **5.** Zueva L.P., Yafaev R.Kh. "Epidemiology". Textbook. - Saint Petersburg. "Foliant", 2006. **6.** O.M. Mirtazaev., G.S. Matnazarova., N.I. Briko. "Epidemiology" Textbook. Tashkent, 2019. **7.** O.M. Mirtazaev., G.S. Matnazarova, N.S. Saidkasimova. Textbook. "Epidemiology". Tashkent, 2023.

8. O.M. Mirtazaev., G.S. Matnazarova, N.S. Saidkasimova. "Infection Control" Study Guide, 2023.
9. G.S. Matnazarova, N.O. Ne'matova, M.F. Abdukakharova. "Parasitology" Study Guide, 2023.
10. N.I. Briko, L.P. Zueva, V.I. Pokrovskiy, V.P. Sergiev, V.V. Shkarin. Epidemiology. Textbook. Moscow "FIRO", 2015. (Electronic version).
11. Etiology, Epidemiology, Clinical Features, Treatment and Prevention of Coronavirus Infection. Methodical Guide. L.N. Tuychiev and co-authors. Tashkent, 2020.
12. N.I. Briko, G.G. Onishchenko, V.I. Pokrovskiy. Manual on the Epidemiology of Infectious Diseases. Moscow, 2019. (Electronic version).
13. A.V. Slobodenyuk, A.A. Kosova, R.N. An. Epidemiological Analysis. Yekaterinburg "GBOU", 2015. (Electronic version).
14. N.D. Yushchuk, Yu.V. Martynov, E.V. Kukhtevich, Yu.Yu. Grishina, S.A. Mikhneva. Epidemiology (Guide for Self-Preparation for Practical Classes) Moscow, 2015. (Electronic version).
15. Gordis L. Epidemiology. Philadelphia: Saunders, 1996.
16. Leon Gordis Epidemiology, 5th edition, Philadelphia, USA 2014

Websites

1. www.gov.uz
2. www.minzdrav.uz
3. www.tta.uz
4. www.tma.uz
5. httb://web.tma
6. TMA Wi-Fizone
7. www.ZiyONet
8. www. epidem.uz
9. www.epidem.uz
10. www.lex.uz
11. www.MedPortal.ru
12. www.Med-edu.ru
13. www.med-info.ru
14. www.medagent.ru
15. www.medical-encyclopedia.zelenka.su
16. www.journals.medi.ru

11.	The module curriculum for the subject was approved by the Protocol No. 4 of August 29, 2023, of the Coordinating Council for the Activities of Educational and Methodological Associations for Higher Education Fields and Specialties. Developed and approved by the Tashkent State Medical University. The module's academic program was approved by Order No. 03311 of the Tashkent State Medical University dated **May 08, 2024** (Annex 2 to the order). Head of the Educational and Methodological Department: **F.X. Azizova** Dean of the Faculty of Medical Prevention and Public Health, Environmental Protection and Chemistry: **F.I. Salomova**
12.	**Persons responsible for the module** **N.U.Tadzhieva** – Head of the Department of Epidemiology, Tashkent State Medical University, Doctor of Medical Sciences, Professor **N.T. Khamzaeva** – Assistant at the Department of Epidemiology of Tashkent State Medical University, PhD **M.O.Kurbaniyazova** – Assistant of the Department of Epidemiology, Tashkent State Medical University
13.	**Reviewers:** **Internal reviewer:** **M.F. Abdukakhkharova** – Associate Professor of the Department of Epidemiology, Tashkent State Medical University, PhD. **External reviewer:** **J.A. Rakhmonova** – Associate Professor of the "Epidemiology" Department, Center for Professional Development of Medical Personnel, PhD.