

**MINISTRY OF PUBLIC HEALTH OF UKRAINE
VINNYTSIA NATIONAL PIROGOV MEMORIAL MEDICAL
UNIVERSITY
DEPARTMENT OF GENERAL HYGIENE AND ECOLOGY**

**SELF-STUDY MATERIALS FOR INDEPENDENT WORK
OF STUDENTS OF THE FACULTY OF MEDICINE ON
HYGIENE AND ECOLOGY
(Part 1)**

**for students of medical faculty
field of knowledge – I Healthcare
specialties – I2 Medicine**

The student _____

The group _____

The faculty _____

Vinnytsia – 2025

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TOPIC 1: HYGIENE AS A SCIENCE. PLACE AND SIGNIFICANCE OF HYGIENE IN THE MEDICAL SCIENCES SYSTEM AND IN THE WORK OF A GENERAL PRACTITIONER. MAIN LAWS OF HYGIENE. RESEARCH METHODS IN HYGIENE.

THE AIM: To learn the basic laws of hygiene and methods of hygienic research, hygienic aspects of activity of the general practitioner and family doctor in the course of carrying out health-improving activities, preventive and current sanitary supervision.

To learn about the hygiene as a science and the sanitation. To study the basic laws of hygiene, their goals, tasks, components, significance of hygienic knowledge for doctors of different profile.

THEORETICAL QUESTIONS:

1. Hygiene as a science. Main laws of hygiene. A preventive orientation of the state system of public health services.
2. Methodology of hygiene. Methods of researches in hygiene.
3. The role of hygiene in preservation and improvement of health and prophylaxis of diseases.
4. Setting of hygienic norms and regulations as a basis of environment and public health protection, its objects and types.
5. Principles of the hygienic norms and regulations setting, responsible institutions. Sanitary and legal legislation in the environmental protection and public health protection.
6. Sanitation as a practical application of hygienic regulations and sanitary norms and rules, its use in work of general practitioners and doctors of other specialties.

LEARNING OBJECTIVES:

1. Learn about the hygiene as a science and sanitation, their goals, tasks, components, significance of hygienic knowledge for doctors of different profile.
- 1.2. Learn the classification of hygienic methods and the research methods. Methods of studying the environmental impact on human body and health.
- 1.3. Get to know the structure of Sanitary and Epidemiologic Service of Ukraine, ways and methods of the public health protection, diseases prevention.

LITERATURE

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2. Hygiene and Ecology. Textbook for higher medical institutions/ V.A. Korobchanskiy, M.P. Vorontsov, A.A. Musulbas. – Kharkov, 2006. – PP. 9-16.
3. Загальна гігієна. Пропедевтика гігієни. / Є.Г. Гончарук, Ю.І. Кундієв, В.Г. Бардовтін. / Заред. Є.Г. Гончарука. – К.: Вища школа, 1995. – С. 48-87; 138-142.
4. Lectures.

TASKS FOR INDEPENDENT WORK

(extracurricular work)

1. Fill in the definition:

Hygiene – is a science_____

2.The main objectives of Hygiene:

1)_____

2)_____

3)_____

4)_____

5)_____

3. Prophylaxis is one of the principles of public health, kinds of prophylaxis:

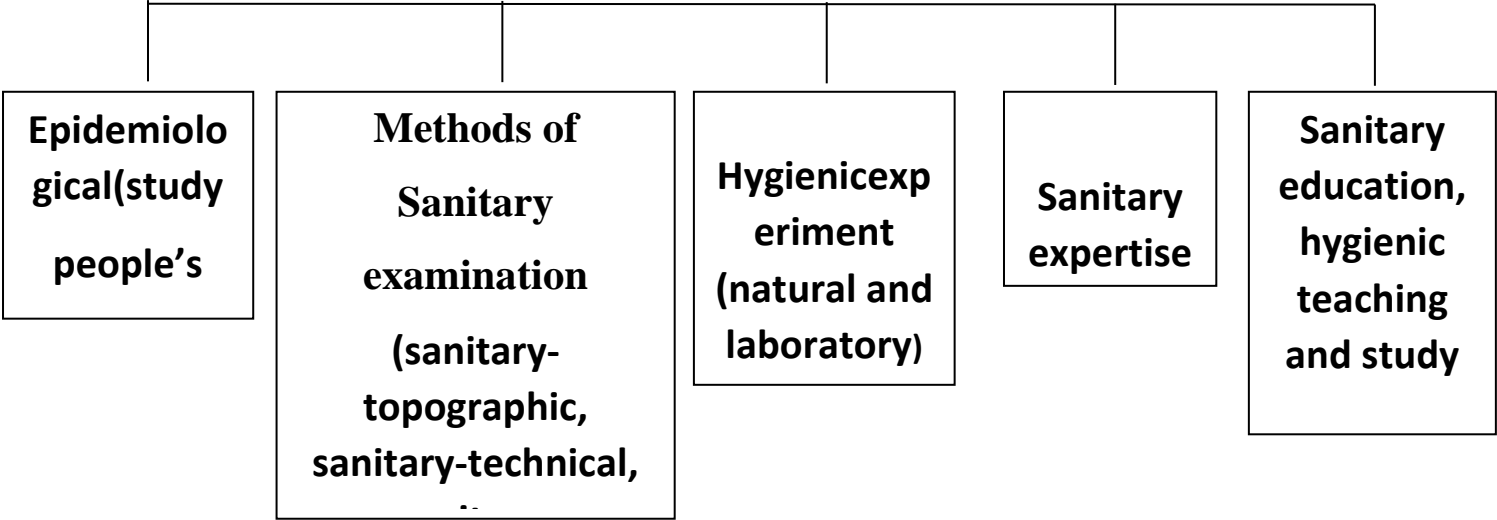
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Diagram 1

THE SPECIFIC METHODS OF HYGIENIC STUDIES



5. Sanitation is

Kinds of sanitation:

1.	
2.	
3.	

MULTIPLE CHOICE QUESTIONS

1. Name, please, the founder of hygiene as an independent science:

- A Dobroslavin A.P.
- B. Minh V. OO
- C. Petenkofer M.
- D. Mechnikov I.I.
- E. Pasteur L.

2. The author of the first medical treatise on a healthy lifestyle is:

- A. Avicenna
- V. Aesculapius
- S. Democritus
- D. Aristotle
- E. Hippocrates

3. One of the first fundamental books of the nineteenth century in the field of sanitation was a nine-volume set of rules "System of a public health police." Its author is:

- A. Frank A. I.
- B. Yesterlen M. W.
- C. M. Levy
- D. Pettenkofer M.
- E. L. Horner

4. What is the main purpose of hygiene:

- A. To study the influence of environmental factors on population health
- B. Preserving and strengthening of health
- C. Study of etiology and pathogenesis of diseases
- D. Substantiation of hygienic standards and criteria for preserving and strengthening of human health
- E. Prediction of sanitary situation in perspective

5. Name the main developmental periods of hygienic science:

- A. Industrial period and period of scientific & technical revolution
- B. Revolutionary and evolutionary periods
- C. Period of ergonomic investigations and laboratory physiological investigations
- D. Period of empirical investigation and period of experimental researches
- E. Period before and after the invention of the microscope

6. *What are the environmental factors that affect human health:*

- A. Physical, chemical, biological, psychological
- B. Collective, individual, personal
- C. Genetic, phenotypic
- D. General, individual, worldwide (universal), domestic, industrial, agricultural, psychological, psychophysiological,
- E. Psychological, psychophysiological, biological

7. *The main parts of hygiene are:*

- A. Nourishing hygiene, multicomponent hygiene
- B. Hygiene of schools and universities, Military Hygiene, Hygiene of Sailors & divers, Occupational Hygiene
- C. Communal hygiene, Personal hygiene, Occupational hygiene, Hygiene of hospitals, Hygiene of nutrition, Radiation Hygiene, Hygiene of children & adolescents
- D. Radiation Hygiene, Hygiene for Comfortable life in towns, Military hygiene
- E. Municipal Hygiene, Occupational Hygiene, Hygiene of fruits & vegetables, Hygiene of animal food, Hygiene of radioactive substances, Hygiene of hospitals.

8. *List the major methods of hygienic researches:*

- A. Experimental method, economic method, historical method, medical-geographical method, sociological method
- B. Epidemiological method, method of sanitary description and examination, method of hygienic experiment, the method of sanitary expertise (laboratory & instrumental
- C. Epidemiological method, constant analysis, expert evaluation method, the method of structural analysis, mathematical modeling method
- D. The method of individual comparison, population-method, medical-statistical method
- E. Method of fuzzy logic, neural networks method, a method of forecasting extrapolation method of brainstorming

9. *The main idea of hygienic experiment in natural conditions is:*

- A. The investigator studies not less than 3 different factors of the environment in usual conditions of everyday activity (at industrial enterprise or in specific living conditions)
- B. A researcher should carry out his own laboratory tests and compare results with ones from another sources and maximum permissible concentration.
- C. Determination of the observation areas. In these areas monitoring of residents' health state will be performed. An observation area is the clearly delineated area with all its population where the concentration of pollutant noticeably exceeds the norm (experimental area) or stays within the ranges of the norm.

- D. The investigator studies the impact of various factors of the environment in usual conditions of everyday activity (during the work at industrial enterprise or in usual living conditions).
- E. The investigator studies the impact of different factors of the environment and methods of mathematical analysis and modeling working out hygienic specifications for harmful factors of the environment.

10. Indicate which of the following research methods is in use to study prevalence of diseases:

- A. The method of health education
- B. The method of sanitary inspection
- S. Method of hygienic experiment
- D. Method of sanitary examination
- E. Epidemiological method

11. List the types of sanitary inspection method:

- A. Sanitary description and profound sanitary inspection including laboratory analysis.
- B. Sanitary examination and medical-statistical method
- C. Medical screening of populations and clinical supervision of volunteers
- D. Laboratory and field experiment (in natural conditions)
- E. Method of forecasting and extrapolation of epidemiological method

12. List the types of the method of hygienic experiment:

- A. Sanitary description and sanitary inspection
- B. Sanitary examination and medical-statistical method
- C. Medical screening of populations and profound clinical examination of volunteers
- D. Hygienic laboratory and field experiment (in a natural conditions)
- E. Method of forecasting and extrapolation of epidemiological method

13. Specify the primary method of research in routine work of Medical Officer:

- A. Method of hygienic experiment
- B. Epidemiological method
- C. The method of sanitary inspection
- D. Method of sanitary examination
- E. The method of health education

14. Name the variants of sanitary inspection for use in hygiene:

- A. Current and preventive inspection
- B. Planned and previous
- C. Unscheduled and periodical
- D. Advanced
- E. Daily and quarterly

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