

## **GENERAL HYGIENE**

Guidelines for the 2<sup>nd</sup> year students (Faculty for International Students)

### ***LESSON 1. Introduction to General Hygiene. The basics of preventive medicine.***

**AIM:** acquaintance with the discipline "General Hygiene" and the basics of preventive medicine.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Preventive medicine and Hygiene. The purpose and tasks of General Hygiene.
2. History of Hygiene. The role of most prominent scientists.
3. Structure of Hygiene.
4. The basic Laws of Hygiene.
5. Methods of hygienic researches.
6. Connection of Hygiene with other sciences.

#### ***Practical work of students***

1. To perform the Healthy Lifestyle Test:  
[https://www.queendom.com/tests/access\\_page/index.htm?idRegTest=1114](https://www.queendom.com/tests/access_page/index.htm?idRegTest=1114)
2. To perform Toxic Lifestyle Test:  
[https://www.queendom.com/tests/access\\_page/index.htm?idRegTest=3180](https://www.queendom.com/tests/access_page/index.htm?idRegTest=3180)
3. To perform Pandemic Resilience Test:  
[https://www.queendom.com/tests/access\\_page/index.htm?idRegTest=4105](https://www.queendom.com/tests/access_page/index.htm?idRegTest=4105)

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 11-17.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 11-17.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.

## **GENERAL HYGIENE**

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### ***LESSON 2. Definitions of Health and Disease. The concept of risk factors.***

**AIM:** to study the concepts of Health, Disease, Premorbidity, Risk factors.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Concepts of individual health.
2. Definition of health. Determinants of health.
3. Definition of disease. Disease agents.
4. The concept of Risk factors. The influence of risk factors on the organism.
5. Effects of risk factors combination. Modifiable and unmodifiable risk factors.
6. Risk assessment methodology.
7. Health Formula.
8. The concept of Premorbidity.

#### ***Practical work of students***

1. To analyze WHO Noncommunicable Diseases Country Profiles.
2. To perform a comparative analysis of the dominant risk factors among the selected countries.

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 18-26.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 18-26.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.

## GENERAL HYGIENE

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### ***LESSON 3. The concept of Prevention.***

**AIM:** to study Complex hygienic diagnostics and Hygienic pre-nosological diagnostics, the concept of Prevention. Acquaintance with the structure of the sanitary-epidemiologic service.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Complex hygienic diagnostics.
2. Hygienic pre-nosological diagnostics.
3. Definition and types of prevention.
4. Modes of intervention in prevention.
5. Sanitary and epidemic wellbeing of the population.
6. The basics of hygienic regulation. Hygienic standards.
7. Sanitary supervision and sanitary control.
8. Sanitary-epidemiologic service in the Republic of Belarus.

#### ***Practical work of students***

1. To develop measures for primary, secondary, tertiary prevention of the impact of the main risk factors in the selected countries.

2. To perform Hypertension Risk Test:

[https://www.queendom.com/tests/access\\_page/index.htm?idRegTest=3189](https://www.queendom.com/tests/access_page/index.htm?idRegTest=3189)

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 27-37.

2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 27-37.

3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.

## GENERAL HYGIENE

Guidelines for the 2<sup>nd</sup> year students (Faculty for International Students)

### ***LESSON 4. Hygienic problems of nutrition.***

**AIM:** introduction to the modern concept of healthy nutrition.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Hygiene of nutrition. Hygienic problems of nutrition.
2. Types of nutrition. Hygienic requirements for rational nutrition.
3. The basic Laws of rational nutrition.
4. Physiological requirements in rational nutrition.
5. The food guide pyramid.
6. Main rules of healthy nutrition.

#### ***Practical work of students***

1. To perform Healthy Eating Assessment Tests:

<https://www.hss.gov.nt.ca/sites/hss/files/resources/healthy-eating-assessment.pdf>

<https://healthyeatingquiz.com.au/>

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 38-44.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 38-44.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.

## GENERAL HYGIENE

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### ***LESSON 5. Hygienic characteristics of macro- and micronutrients.***

**AIM:** to study hygienic characteristics of protein, fats, carbohydrates, vitamins and minerals.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Definition and classification of nutrients. Essential nutrients.
2. Proteins: definition, classification, functions, dietary sources, requirements. Effects of protein deficiency.
3. Fats: definition, classification, functions, dietary sources, requirements. Fats and disease.
4. Carbohydrates: definition, classification, functions, dietary sources, requirements. Carbohydrates and disease.
5. Vitamins: definition and classification. Functions, dietary sources, requirements of water-soluble vitamins.
6. Fat-soluble vitamins: functions, dietary sources, requirements.
7. Minerals: definition and classification. Functions, dietary sources, requirements of macroelements.
8. Functions, dietary sources, requirements of microelements.

#### ***Practical work of students***

1. To perform Nutrition IQ Test:

[https://www.queendom.com/tests/access\\_page/index.htm?idRegTest=708](https://www.queendom.com/tests/access_page/index.htm?idRegTest=708)

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 45-55.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 45-55.
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## **GENERAL HYGIENE**

Guidelines for the 2<sup>nd</sup> year students (Faculty for International Students)

### ***LESSON 6. Nutrition requirements for different groups of population and their physiological background.***

**AIM:** to study Recommended Dietary Allowances and special features of nutrition for different groups of population.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Nutrition requirements for particular groups of population.
2. Special features in organization of children's nutrition.
3. Features of nutrition organization for adult working population.
4. Special features of nutrition for intellectual work employees and students.
5. Special features of elderly people nutrition organization.
6. Special features of sportsmen nutrition organization.

#### ***Practical work of students***

1. To solve situational tasks.

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 56-61.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 56-61.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.

## GENERAL HYGIENE

Guidelines for the 2<sup>nd</sup> year students (Faculty for International Students)

### ***LESSON 7. Hygienic basics of preventive and clinical nutrition. Hygienic requirements for the nutrition provision units and catering in hospitals.***

**AIM:** to study the basics of preventive and clinical nutrition, get acquainted with the organization of catering in hospitals.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Hygienic basics of preventive nutrition
2. Characteristics of standard preventive diets
3. Hygienic principles of clinical nutrition
4. Characteristics of standard clinical diets.
5. Hygienic requirements for the nutrition provision units.
6. Hygienic requirements for catering in hospitals.

#### ***Practical work of students***

1. Demonstration of methods for controlling cutlery and tableware.
2. To solve situational tasks.

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 62-68, 105-109.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 62-68, 106-110.
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## **GENERAL HYGIENE**

Guidelines for the 2<sup>nd</sup> year students (Faculty for International Students)

### ***LESSON 8. Nutritional and biological value of the principal foodstuffs.***

**AIM:** to study the procedure of the food quality examination.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Nutritional quality and safety of food. Certification of quality and safety.
2. Classification of foodstuffs. Food quality examination.
3. Milk and dairy products: hygienic characteristics of nutritional and biological value, quality examination.
4. Methods of milk preservation.
5. Meat and poultry: hygienic characteristics of nutritional and biological value, quality examination.
6. Diseases of unsound meat consumption.
7. Fish: hygienic characteristics of nutritional and biological value, quality examination.
8. Eggs: hygienic characteristics of nutritional and biological value, quality examination.
9. Cereals and wheat: hygienic characteristics of nutritional and biological value, quality examination.
10. Fruits and vegetables: hygienic characteristics of nutritional and biological value, quality examination.

#### ***Practical work of students***

1. Demonstration of food quality assessment methods.
2. To solve situational tasks.

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 69-81.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 69-82.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.



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### *LESSON 9. Hygienic assessment of the nutritional status.*

**AIM:** to study the methodology of nutritional status assessment.

**DURATION:** 2.0 academic hours.

#### *Questions to study*

1. Definition of Nutritional Status.
2. Anthropometric approaches to Nutritional Status assessment.
3. Dietary approaches to Nutritional Status assessment.
4. Common methods for dietary data collection.
5. Classification of the Nutritional Status.

#### *Practical work of students*

1. To perform personal nutritional status assessment.
2. To perform Diet and Weight Loss Test:

[https://www.queendom.com/tests/access\\_page/index.htm?idRegTest=3092](https://www.queendom.com/tests/access_page/index.htm?idRegTest=3092)

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 82-89.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 83-90.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.

## GENERAL HYGIENE

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### ***LESSON 10. Prevention of food-borne (alimentary) diseases.***

**AIM:** to study the principles of food-borne diseases prevention.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Relation of nutrition to health. Definition and classification of alimentary diseases.
2. Diseases of Protein-energy malnutrition.
3. Diseases of the nutritional excess.
4. Diseases of deficiency and excess of vitamins.
5. Diseases of deficiency and excess of minerals.

#### ***Practical work of students***

1. To perform Eating Disorders and Emotional Eating Test:

[https://www.queendom.com/tests/access\\_page/index.htm?idRegTest=3127](https://www.queendom.com/tests/access_page/index.htm?idRegTest=3127)

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 90-95.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 91-96.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.

## **GENERAL HYGIENE**

Guidelines for the 2<sup>nd</sup> year students (Faculty for International Students)

### ***LESSON 11. Prevention of bacterial food poisoning.***

**AIM:** to study the principles of bacterial food poisoning prevention.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Definition and classification of food poisoning.
2. Infection type of bacterial food poisoning and its prevention.
3. Staphylococcal food poisoning and its prevention.
4. Botulism and its prevention.
5. Mycotoxicosis and its prevention.

#### ***Practical work of students***

1. To solve situational tasks.

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 96-100.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 96-101.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.

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### ***LESSON 12. Prevention of non-bacterial food poisoning.***

**AIM:** to study the principles of non-bacterial food poisoning prevention.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Nonbacterial food poisoning of plant origin.
2. Nonbacterial food poisoning of animal origin.
3. Mushroom poisoning.
4. Chemical food poisoning.
5. Alien chemical substances (xenobiotics) in food.
6. Food poisoning investigation.

#### ***Practical work of students***

1. To solve situational tasks.

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 101-104, 110-114.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 101-105, 111-115.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.

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### ***LESSON 13. Hygiene of environment. Hygienic characteristics of air medium.***

**AIM:** to study hygienic characteristics of the atmosphere, effects of air pollutants on human health.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Hygienic characteristics of the atmosphere.
2. The main sources of air pollution.
3. Characteristics of the main atmospheric pollutants. Measures for the protection of the atmosphere from sources of pollution.
4. Weather and its impact on the human body.
5. Meteorological reactions. Meteorological sensitivity.
6. Climate and its impact on the human body. Climatic zones. Acclimatization.

#### ***Practical work of students***

1. Demonstration of methods for assessing the quality of atmospheric air.
2. To solve situational tasks.

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 115-126.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 116-127.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.

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### ***LESSON 14. Hygienic characteristics of soil.***

**AIM:** to study hygienic characteristics of the lithosphere, effects of soil pollutants on human health, the principles of endemic diseases prevention.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Lithosphere: structure and composition. Importance of soil.
2. Sources of pollution in lithosphere.
3. Endemic goiter and its prevention.
4. Iron deficiency and its prevention.
5. Fluorin deficiency and its prevention.
6. Fluorosis and its prevention.
7. Keshan disease and its prevention.
8. Prevention of Itai-Itai, Minamata, Yusho diseases.

#### ***Practical work of students***

1. Demonstration of methods for assessing soil quality.
2. To solve situational tasks.

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 127-140.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 128-142.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.

## GENERAL HYGIENE

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### ***LESSON 15. Hygiene of an urban environment. Waste management.***

**AIM:** to study hygienic characteristics of an urban environment and the principles of waste management.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Hygienic characteristics of an urban environment.
2. Hygienic requirements for planning and construction of urban and rural settlements.
3. Waste management.
4. Hospital waste management.
5. Health hazards of health-care waste.

#### ***Practical work of students***

1. To solve situational tasks.

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 141-150.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 143-152.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.

## **GENERAL HYGIENE**

Guidelines for the 2<sup>nd</sup> year students (Faculty for International Students)

### ***LESSON 16. Hygienic characteristics of hydrosphere.***

**AIM:** to study hygienic characteristics of the hydrosphere, effects of water pollutants on human health, role of water in the distribution of diseases.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Hydrosphere: structure and role.
2. The main sources of hydrosphere pollution. Protection measures.
3. Role of water in the distribution of diseases.

#### ***Practical work of students***

1. To solve situational tasks.

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 151-158.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 153-160.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.



## **GENERAL HYGIENE**

Guidelines for the 2<sup>nd</sup> year students (Faculty for International Students)

### ***LESSON 17. Hygienic requirements to the water supply of settlements.***

**AIM:** to study hygienic requirements for drinking water supply and quality.

**DURATION:** 2.0 academic hours.

#### ***Questions to study***

1. Drinking water resources.
2. Hygienic characteristics of water sources.
3. Systems of water supply.
4. Improvement of water quality. Stages of water purification.
5. Methods of water decontamination.
6. Indices of water quality: epidemiological safety of water.
7. Indices of water quality: chemical content.
8. Indices of water quality: organoleptic properties and ionizing radiation safety.

#### ***Practical work of students***

1. Demonstration of methods for assessing water quality.
2. To solve situational tasks.

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 159-174.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 161-176.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.

## **GENERAL HYGIENE**

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### ***LESSON 18. General Hygiene credit test.***

**AIM:** final certification in the sections "Introduction to General Hygiene", "Hygiene of Nutrition", "Hygiene of Environment".

**DURATION:** 2.0 academic hours.

#### ***Credit test includes***

1. Control work on the passed topics.
2. Multiply choice questions on the passed topics.
3. Situational tasks solving.

#### **Literature for self-study:**

1. General Hygiene: training manual for the Medical Faculty of International Students / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2020. – P. 11-174.
2. General Hygiene: Manual for the Medical Faculty of International Students (English medium of instr.) / I. A. Naumov, E. A. Moiseenok, E. S. Lisok. – Grodno: GrSMU, 2018. – P. 11-176.
3. Preventive and social medicine / K. Park. – Jabalpur, 2003. – 552 p.