

MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS
EDUCATIONAL INSTITUTION
BELARUSIAN STATE MEDICAL UNIVERSITY

Контрольный
экземпляр



APPROVED

by First Vice-Rector, Professor

I.N.Moroz

27.06.2023

Reg. # UD-0911-01-02/23/edu.

HISTORY OF MEDICINE

Curriculum of educational institution
in the educational discipline for the specialty:

7-07-0911-01 «General Medicine»

The curriculum is based on the educational standard of higher education in the specialty 7-07-0911-01 «General Medicine», approved and enforced by the decree of the Ministry of Education of the Republic of Belarus and the Ministry of Health of the Republic of Belarus on 01.09.2023 № 302/127, on the educational plan in the specialty 7-07-0911-01 «General Medicine», approved 17.05.2023, registration # 7-07-0911-01/2324/mf.

COMPILERS:

T.P.Pavlovich, Head of the Department of Public Health and Healthcare of the educational institution «Belarusian State Medical University», PhD, Associate Professor;

I.I.Khalyamina, Senior Teacher of the Public health and Health Care Department of educational institution «Belarusian State Medical University»;

M.A.Liakh, Assistant of the Public health and Health Care Department of educational institution «Belarusian State Medical University»

REVIEWERS:

V.S.Glushanko, Head of the Department of Public Health and Healthcare of the Educational Institution «Vitebsk State Order of Peoples' Friendship Medical University»;

Department of Public Health and Healthcare with advanced training and retraining courses of the Educational Institution «Gomel State Medical University»

RECOMMENDED FOR APPROVAL:

by the Department of Public Health and Healthcare of the educational institution «Belarusian State Medical University»
(protocol # 12 of 06.06.2023);

by the Scientific and Methodological Council of the educational institution «Belarusian State Medical University»
(protocol # 6 of 27.06.2023)

EXPLANATORY NOTE

«History of medicine» - the academic discipline of the module «Introduction to the specialty», which contains systematized scientific data on the emergence of medical knowledge, its development in close interaction with the change of socio-economic formations and cultural history of nations, on the current state of medical theory and practice, the prospects of its development.

The discipline «History of medicine» is aimed at building specialized professional competencies for acquiring skills to objective evaluation of medical theories at the present stage of development of medical science and healthcare.

The discipline «History of Medicine» is focused at building students' scientific knowledge about periods of history of medicine; main theories of medicine, which have existed since ancient times till nowadays; historical development and essence of methods and measures aimed at prevention, diagnosing and treating diseases; the most important discoveries in the field of medicine; about organization of public health services; formation and development of healthcare as a branch of state's policy; historical foundations of medical ethics and deontology; skills and abilities to apply historical approach while organizing and providing a high-quality affordable medical care to the population.

The knowledge, skills, and abilities acquired during the study of the academic discipline «History of medicine» are necessary for successful mastering of the following academic modules: «Therapy module #1», «Surgical module #1», «Public Health and Health Care Management».

Studying of the educational discipline «History of medicine» should ensure the formation of students' specialized competence:

SC-2. Asses the current medical theories on the basis of knowledge about the ways and methods of organizing and providing medical care.

As a result of studying the discipline «History of medicine» the student should:

know:

basic concepts and methods of historical analysis;
main features of the development of medicine in different historical periods;
discoveries made by outstanding medical scientists and individuals, public health achievements in the world and in the Republic of Belarus;

be able to:

analyze and creatively interpret the historical experience of the development of medicine;

interpret and evaluate scientific achievements and discoveries in the field of medicine;

master:

method of historical analysis.

Total number of hours for the study of the discipline is 90 academic hours. Classroom hours according to the types of studies: lectures - 18 hours (including supervised student independent work – 6 hours), seminars – 16 hours, student independent work (self-study) – 56 hours.

supervised student independent work – 6 hours), seminars – 16 hours, student independent work (self-study) – 56 hours.

Intermediate assessment is carried out according to the syllabus of the specialty in the form of a credit (1 semester).

Form of higher education – full-time.

ALLOCATION OF ACADEMIC TIME ACCORDING TO SEMESTERS OF STUDY

Code, name of the specialty	semester	Number of academic hours						Form of intermediate assessment
		total	in-class	including			out-of-class self-studies	
				lectures (including supervised independent work)	supervised student independent work	seminars		
7-07-0911-01 «General Medicine»	1	90	34	18	6	16	56	credit

THEMATIC PLAN

Section (topic) name	Number of class hours	
	lectures	seminars
1. Introduction to the discipline «History of medicine». Beginning of medicine in primitive society	2	-
2. Medicine in the Ancient World	2	4
3. Medicine in the Middle Ages	4	4
4. Medicine in the New Age (XVIII – XIX centuries)	6	6
5. Modern time medicine (XX – XXI century)	4	2
Total hours	18	16

CONTENT OF THE EDUCATIONAL MATERIAL

1. Introduction to the discipline «History of medicine». Beginning of medicine in primitive society

History of Medicine as a science, its aims and objectives. History of Medicine as part of the general history. General and special history of medicine. Historical research method. Historical source, definition, types. Periodization of History of Medicine.

History of Medicine in Belarus as a part of general history of medicine.

Living conditions of primitive people, their main occupation. Beginning of medicine in primitive society. Sources of primitive society study. Historical and medical definitions of «pre-medicine», «emerging medicine», «folk medicine», «traditional medicine», «scientific medicine». First religious and mystical ideas (animism, fetishism, magic), their influence on treatment. Medical and hygiene information and primitive people actions. First healers, their social status. Rituals and incantations as a form of medical practice.

2. Medicine in the Ancient World

Characteristics of the Ancient World. Written, linguistic, material sources of studying medicine of the Ancient World. The influence of religious and mystical beliefs, philosophical concepts on the development of ancient civilization medicine. Anatomical and physiological representation, methods for their preparation. Causes of diseases. First basic theory of pathology. Cult of physical and spiritual beauty. First medical and ethical documents. First medical institutions (yatreyi, asklepion, valetudinarium). Priestly, family, state medicine. The beginning of medicine specialization.

Features of medicine of ancient civilizations: Ancient Egypt, Mesopotamia, Ancient Iran, Ancient India, Ancient China.

Medicine of Antiquity Epoch and Hellenistic period: Ancient Greece, Ancient Rome. Sanitary and hygienic measures (sewerage, aqueductus, thermal baths). The significance of Hippocrates and Galen works. Therapeutic principles and techniques. Remedies. Surgical instruments. Surgical operations.

3. Medicine in the Middle Ages

General characteristics of the Middle Ages.

Encyclopedic and scientific nature of medicine of the East (Byzantine Empire, Arab Caliphate), Islamic influence. Christianity influence on the development of medicine in Europe. Scholastics. Health care facilities (hospitals, clinics), work organization. Medical education (medical schools, universities).

The historical significance of the works of Nicholas Myrepsos, Oribasius, Simeon Seth, Alexander of Tralles, Paul of Aegina, Aëtius of Amida, Ibn Sin, Al-Razi, Arnold de Villanova, Guy de Chauliac. Beginning of specialized departments. Epidemics of infectious diseases in Western Europe: causes, nature of clinical course, prevention and treatment. Sanitary regulations, sanitary authorities. Measures for the sanitary improvement of cities.

General characteristics of Renaissance medicine. Sanitary and hygienic facilities, landscaping and sanitary control in the cities of Western Europe.

Approval of the experimental method in medicine. The most important discoveries and achievements in the field of Physiology. Iatrochemists (Paracelsus, Franciscus Sylvius, Jan Baptist van Helmont), Iatrophysics (Santorio Santorio's, René Descartes's works), iatromechanics (Giorgio Baglivi's, Giovanni A. Borelli's, Lorenzo Bellini's works), their strong and weak points.

The role of microscopic equipment in medicine (Antoni van Leeuwenhoek). The development of anatomical knowledge (the works of Leonardo da Vinci, Andreas Vesalius, Matteo Realdo Colombo, Charles Estienne, Bartholomeo Eustachi, Gabriele Falloppio, Regnier de Graaf, Francis Glisson, Nathaniel Highmore). Blood circulation theory development (Michael Servetus, William Harvey, Marcello Malpighi). Development of Histology and Embryology (William Harvey's, Marcello Malpighi's, Francesco Redi's works).

Revolution in surgical techniques: transition from «harsh» surgery to «gentle». Prominent and celebrated surgeon of the Renaissance Ambroise Paré. Revival of the clinical method. Education at the bedside (Giovanni Battista Montano, Herman Boerhaave). The value of Girolamo Fracastoro's works. The origin of occupational disease doctrine (works of Ulrich von Ellenbog, Paracelsus, Georgius Agricola (Georg Bauer), Samuel Stockhausen, Bernardino Ramazzini).

4. Medicine in the New Age (XVIII-XIX centuries)

Characteristics of the era. Differentiation of scientific knowledge. Medical societies. Medical congresses. Medical journals, academic and popular science books. Specialization of clinical disciplines.

Development of physiology of respiration, digestion, cardiovascular system, nervous system in the works of Albrecht von Haller, Luigi Galvani, Georg Prochaska, F. François Magendie, Johannes Peter Müller, Claude Bernard, Emil Heinrich du Bois-Reymond, Hermann von Helmholtz, Ivan Sechenov, Ivan Pavlov. Formation of pathological anatomy as a science (Giovanni Battista Morgagni, Marie Francois Xavier Bisha, Karl Rokitansky, Rudolf Virchow).

Development of therapy in Western Europe: thermometry (Daniel Gabriel Fahrenheit, René-Antoine Ferchault de Réaumur, Anders Celsius, Herman Boerhaave), use of percussion (Josef Leopold Auenbrugger) and auscultation (Rene Theophile Hyacinthe Laennec). Description of nosological forms of diseases.

The formation of Topographic Anatomy as a science. The role of Russian scientists (Ilya Buyalsky, Nikolay Pirogov) in Topographic Anatomy development.

Doctrine of general and local anesthesia. History of anesthesia discovery (Humphry Davy, Herbert George Wells, John Collins Warren, Crawford Long, William Thomas Green Morton, Charles Thomas Jackson, Nikolay Pirogov). Bloodless surgery. Emil Theodor Kocher's and Christian Albert Theodor Billroth's contribution to abdominal surgery development. Development of asepsis and antisepsis principles. Discovery of blood groups. First experiments on blood transfusion.

Origin of microbiology, immunology and virology. Creation and application of vaccines and serums.

Prerequisites for the development of sanitation and hygiene in the middle of the 19th century. Issues of social hygiene in the works of Johann Peter Frank, Carl Georg Friedrich Wilhelm Flügge. Origin of demographic statistics (works of John Graunt, William Petty). Max Joseph Pettenkofer and his school (Carl von Voit, Max Rubner).

5. Modern time medicine (XX – XXI century)

Characteristics of the XX - beginning of the XXI century. Specialization and integrity of medicine. Technologization and humanization of medicine.

Discoveries in the field of medicine and related sciences awarded the Nobel Prize.

Medicine in World War I (1915-1918).

Medicine in World War II (1939-1945).

History of the World Health Organization. International cooperation in the field of public health.

EDUCATIONAL DISCIPLINE CURRICULAR CHART

Section, topic #	Section (topic) name	number of hours			Self-studies	Form of control
		lectures	supervised student work	seminars		
1.	Introduction to the discipline «History of Medicine». Beginning of medicine in primitive society	2	1	-	6	Studying topics and problems that have not been discussed at the lectures
2.	Medicine in the Ancient world Peculiarities of medicine of Ancient civilizations: Ancient Egypt, Mesopotamia, Ancient Iran, Ancient India, Ancient China	2	1	4	10	Discussion, debates on in-class case studying, e-tests
	Medicine of the Ancient and Hellenistic periods: Ancient Greece, Ancient Rome	2	1	2	5	Discussion, game activities, e-tests
3.	Medicine in the Middle Ages Medicine of the Early and High Middle Ages (V–XV century) Renaissance medicine (XVI – XVII centuries)	4	1	4	10	Discussion, reports, debates on in-class case studying, e-tests
		2	0,5	2	5	Discussion, reports, accounts of classroom practical exercises with oral defense, e-tests
4.	Medicine in the New Age (XVIII – XIX centuries) Development of physiology, therapy in the Modern Age Development of anatomy and surgery in the Modern Age Development of microbiology, immunology and virology in the Modern Age	6	2	6	18	Discussion, reports, game activities, e-tests
		2	0,5	2	6	Discussion, reports, control questioning, e-tests
		2	0,5	2	6	Discussion, reports, control questioning, e-tests
		2	1	2	6	Discussion, reports, control questioning, e-tests

5. Modern time medicine (XX – XXI century)	4	1	2	12
The most important achievements of world medicine of the XX-early XXI centuries	2	0,5	2	6
International cooperation in the field of public health of the XX-early XXI centuries	2	0,5	-	6
Total hours	18	6	16	56

Accounts of classroom practical exercises with oral defense, e-tests

Studying topics and problems that have not been discussed at the lectures, e-tests. Credit

INFORMATION AND INSTRUCTIONAL UNIT

LITERATURE

Basic:

1. История медицины = History of medicine : учеб.-метод. пособие / Т. П. Павлович и др. – 3-е изд. – Минск : БГМУ, 2019. – 83 с. .
2. Lisitsyn, Yuriy Pavlovich. History of medicine : textbook / Lisitsyn, Yuriy Pavlovich. – Moscow : Geotar-Media, 2020. – 351 p.

Additional:

3. Глушанко, В. С. История медицины = History of medicine : пособие. – Витебск : ВГМУ, 2022. – 297 с.
4. Сурмач, М. Ю. Руководство к практическим занятиям по истории медицины : пособие для студентов учреждений высшего образования, обуч. по специальности 1-79 01 01 «Лечебное дело» = Guide to practical classes on the history of medicine. – Гродно : ГрГМУ, 2019. – 284 с.

METHODOLOGICAL RECOMMENDATIONS FOR THE ORGANIZATION AND PERFORMANCE OF SUPERVISED STUDENT INDEPENDENT WORK IN THE ACADEMIC DISCIPLINE

Main forms of independent student work:

preparation of reports, essays, presentations;
 presentation of reports;
 studying topics and problems that have not been discussed at the lectures;
 computer testing;
 participation in active forms of education.

Control of supervised independent student work is carried out in the form of:

test paper;
 discussion of reports, essays;
 assessment of an oral reply to a question, presentation, report or problem solving;
 individual interview.

LIST OF AVAILABLE DIAGNOSTIC TOOLS

The following forms are used for competences assessment:

Oral form:

discussion;
 debates on in-class case studying;
 game activities.

Written form:

control questioning;
 reports.

Oral-written form:

accounts of classroom practical exercises with oral defense; credit.

Technical form:

electronic tests.

LIST OF AVAILABLE TEACHING METHODS

Traditional method (lectures, seminars);

Active (interactive) methods:

Problem-Based Learning (PBL);

Team-Based Learning (TBL);

Research-Based Learning (RBL).

LIST OF PRACTICAL SKILLS

1. Work with texts on the history of medicine (preparation of reports, essays, presentations).
2. Identification of patterns of development of medical knowledge and activities in the context of the historical development of mankind.

LIST OF LECTURES

1. Introduction to the discipline «History of Medicine». Beginning of medicine in primitive society.
2. Medicine of the Ancient and Hellenistic periods: Ancient Greece, Ancient Rome.
3. Medicine of the Early and High Middle Ages (V–XV century).
4. Renaissance medicine (XVI – XVII centuries).
5. Development of physiology, therapy in the Modern Age.
6. Development of anatomy and surgery in the Modern Age.
7. Development of microbiology, immunology and virology in the Modern Age.
8. The most important achievements of world medicine of the XX-early XXI centuries.
9. International cooperation in the field of public health of the XX-early XXI centuries.

LIST OF SEMINAR CLASSES

1. Peculiarities of medicine of Ancient civilizations: Ancient Egypt, Mesopotamia, Ancient Iran, Ancient India, Ancient China.
2. Medicine of the Ancient and Hellenistic periods: Ancient Greece, Ancient Rome.
3. Medicine of the Early and High Middle Ages (V–XV century).
4. Renaissance medicine (XVI – XVII centuries).
5. Development of physiology, therapy in the Modern Age.
6. Development of anatomy and surgery in the Modern Age.
7. Development of microbiology, immunology and virology in the Modern Age.
8. The most important achievements of world medicine of the XX-early XXI centuries.

PROTOCOL OF THE CURRICULUM APPROVAL BY OTHER DEPARTMENTS

Title of the discipline requiring approval	Department	Amendments to the curriculum of the academic discipline	Decision of the department, which designed the curriculum (date, protocol No.)
Propaedeutics of internal diseases	Propaedeutics of internal diseases Department	No amendments	Protocol # 10 of 26.04.2023
General Surgery	Department of general surgery	No amendments	Protocol # 10 of 26.04.2023
Public Health and Health Care Management	Public Health and Healthcare Department	No amendments	Protocol # 10 of 26.04.2023

COMPILERS:

Head of the Department of Public Health and Healthcare of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor




T.P. Pavlovich

Senior teacher of the Department of Public Health and Healthcare of the Educational Institution «Belarusian State Medical University»



I.I. Khalyamina

Assistant of the department of Public Health and Healthcare of the Educational Institution «Belarusian State Medical University»



M.A. Liakh

Curriculum content, composition and accompanying documents comply with established requirements.

Dean of the Medical Faculty for International Students of the educational institution «Belarusian State Medical University»

26.06. 2023



Oleg S. Ishutin

Methodologist of the educational institution «Belarusian State Medical University»

26.06 2023



S.V. Zaturanova