#### MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

Petro Mohyla Black Sea National University

Faculty of Political Science

Department of International Relations and Foreign Policy



HISTORY OF MEDICINE

field of knowledge 22 «Health care» in the specialty 222 «Medicine»

Developer

Head of the Developer's Department

Guarantor of the Educational Program

Director of the Institute

Head of educational and methodical department Developer Vovehuk L.A. Trigub O. P. Klymenko M.O. Hryshenko G.V. Shevehuk O. V. Shkirehak S.I.



 Mykolaiv – 2019	

### **1. Description of the course**

Characteristic	Characteristics of the discipline	
Name of the discipline	History of Medicine	
Branch of knowledge	22 Health Care	
Specialty	222 «Medicine»	
Specialization (if any)	-	
Educational program	Medicine	
Higher education level	MSc	
Status of discipline	General	
Course of study	1	
Academic year	2019-2020	
Semester (s) number (s):	Full-time	Correspondence form
	II semester	-
Total ECTS credits / hours	3 credits / 90 hours	
Course structure:	Full-time	Correspondence form
- lectures	10	-
- seminars (practical, laboratory, semigroup)	10	
hours of independent work of students	70	
Percentage of classroom load	40%	
Language of instruction	English	
Interim control form (if any)	-	
Form of final control	2st semester - differentiated credit	

#### 2. Purpose, objectives and planned learning outcomes

The aim of the discipline "History of medicine" is the formation of a holistic view of the emergence and development of medicine, depending on the socio-economic formation of society; provision of basic medical training and acquisition of practical skills for the subsequent professional activity of a GP.

**Tasks of study:** acquisition of competencies, knowledge, skills and skills for the student to perform professional activity in the specialty of:

a) study of views on the state of health, causes of diseases, means of prevention, treatment depending on outlook and living conditions in the relevant socio-economic formations;

b) identification and justification of the remedies depending on the state of the sciences and scientific and technological process;

c) contribution to the world treasury of medicine by outstanding scientists and doctors;

d) acquaintance with the main sources of medicine;

e) knowledge of the specifics and features of medicine of Ukraine.

**Expected learning outcomes.** As a result of studying the discipline students should:

#### Know:

- 1. The main stages of development of medicine in connection with the development and change of socio-economic formations, the general periodization and the chronology of development of medicine;
- 2. Major epochs, periods in the history of medicine;
- 3. Factors influencing the history and development of medicine and the attainment of medicine at various stages in the development of world history;
- 4. Contribution of prominent figures of world and Ukrainian medical science to national and world medicine;
- 5. Health and nursing issues in Ukraine, the world.

#### Be able:

- 1. Correctly interpret and analyze the development of medicine in historical retrospect;
- 2. Interpret the major historical and medical events;
- 3. Apply their knowledge in solving professional problems;
- 4. Promote the spiritual revival of Ukrainian medicine;
- 5. Deepen their knowledge in medicine;
- 6. Navigate and contribute to contemporary health problems.

The developed program is in accordance with the educational and professional program (OPP) and is focused on the formation of competencies:

#### Common (GC) - GC 1:

1. The ability to think abstractly, analyze and synthesize, the ability to learn and master modern knowledge.

In accordance with the educational and professional program, the professional competences (PC) include the skills of PC 2, PC 3, PC 5, PC 14:

- 1. Ability to determine the required list of laboratory and instrumental studies and evaluate their results;
- 2. Ability to establish a preliminary and clinical diagnosis of the disease;
- 3. Ability to determine the nature of nutrition in the treatment of the disease;
- 4. Ability to carry out sanitary-hygienic and preventive measures.

#### 3. The program of the discipline

The educational process is organized under the European Credit Transfer and Accumulation System (ECTS).

The discipline program consists of one block:

#### **UNIT 1. HISTORY OF MEDICINE**

#### **SECTIONS:**

#### **1. HISTORY OF MEDICINE**

#### **UNIT 1. HISTORY OF MEDICINE**

#### SECTION 1 HISTORY OF MEDICINE

#### **Topic 1. Medicine of the Ancient World**

Characteristics of the era. The concept of "civilization". Prerequisites for the civilization process. The emergence of the first (early) slave civilizations: in Mesopotamia and Egypt, India, China, the Eastern Mediterranean.

Common features of treatment in the slave states: the invention of writing (from IV millennium BC) and the creation of the first texts of medical content (from the end of III millennium BC); formation of two directions of medical practice: empirical treatment based on the practical experience of the people, and religious (theurgical) treatment based on religious beliefs; the development of ideas about the origin of diseases (related to nature, moral, ethical, religious and mystical); training of doctors (family tradition, teaching in schools at temples), creation of the most important sanitary-engineering constructions, development of hygienic skills and traditions; development of a class approach to treatment; forming the basics of medical ethics; the development of mutual influences and continuity in the field of healing between different ancient civilizations.

## Topic 2. World medicine of the Middle Ages of the Arab caliphates. Medicine of the Early and Developed Middle Ages. Renaissance medicine.

Characteristics of the era. Fundamental characteristics of European feudalism. The problem of periodization of medieval history. Arabic medicine. Medicine of Western Europe. Monastic medicine and pharmacy. The origin of the humanistic direction. Medical literature in the Renaissance. Popular medicine guides. Differentiation of medicine. Anatomy formation as a science. Art studios and medicine. Anatomical diaries of Leonardo da Vinci. University of Padua in the XVI century. Andreas Vesalius and his works. The formation of physiology as a science (F. Bacon, R. Descartes, M. Servette, and W. Harvey). Jatrophysics, Jatromechanics. S. Santorio, J. Borelli. The origin of clinical medicine, clinical teaching. Yatrochemistry. Paracelsus Medical System. Surgery development. Guild organization of artisan surgeons. Ambroise Pare and his Surgical Instruments and Anatomical Drawings. Girolamo Fracastoro and his work On Contacts, Contagious Diseases and Treatment.

Topic 3. Medicine on the Ukrainian lands in ancient times (IV centuries BC - VIII century AD). Medicine of Ukraine-Russia during the Middle Ages (IX - XVIII centuries ..)

Features of the formation of medicine over periods: Trypillians, Scythians, Slavic tribes. Medicine of Ukraine - Russia in the IX-XII centuries. Medicine of Ukraine-Rus in the XIII-XVIII centuries.

#### **Topic 4. World medicine of modern times**

Hygiene and public health. Formation of occupational pathology: B. Ramazzini. The Development of Public Hygiene in England: J. Simon. Formation of experimental hygiene: M Pettenkofer. Normal anatomy. Introduction of anatomical incisions in the teaching of medicine in Western Europe. Leiden Anatomical School. F. Ruish. Differentiation of anatomy (human anatomy, histology, embryology, anthropology). Formation of embryology. General pathology (pathological anatomy and pathological physiology). Histology. Medical Microbiology. Physiology and Experimental Medicine.

#### Topic 5. World and Ukrainian medicine of the nineteenth and twentieth centuries

World medicine and pharmacy XIX. The formation of medicine and pharmacy in the twentieth century. Development of medicine (XIX-XX centuries) in the territory of Ukraine.

Торіс	Lectures	Practical training	Independent work, including individual work
UNIT 1	HISTORY OF	MEDICINE	
Secti	on 1. History of	Medicine	
1. Medicine of the Ancient World	2	2	10
2. World medicine of the Middle Ages of	2	2	15
the Arab caliphates. Medicine of the			
Early and Developed Middle Ages.			
Renaissance medicine.			
3. Medicine on the Ukrainian lands in	2	2	20
ancient times (IV centuries BC - VIII			
century AD). Medicine of Ukraine-			
Russia during the Middle Ages (IX -			
XVIII centuries)			
4. World medicine of modern times	2	2	15
5. World and Ukrainian medicine of the	2	2	10
nineteenth and twentieth centuries			
Total hours - Credits ECTS – 3.	10	10	70

#### Structure of the discipline

#### 4. Contents of the course

#### **4.1. Plan of lectures**

#### Unit 1

№	The topic of the lesson	Number

		hours
1	Theme 1. Medicine of the Ancient World	2
	1. Medicine of the Ancient East	
	2. Medicine of Ancient Egypt	
	3. Medicine of Ancient China	
	4. Medicine of Ancient India	
	5. Medicine in Mesopotamia	
	6. Medicine of ancient Greece and Rome	
2	Theme 2. World medicine of the Middle Ages of the Arabian Caliphate.	2
	Medicine of the early and developed of the Middle Ages. Medicine of the	
	Renaissance.	
	1. Arabic medicine.	
	2. Medicine of Western Europe. Monastic medicine and pharmacy.	
	3. Pharmacy and medicine in the Renaissance.	
3	Theme 3. Medicine on the Ukrainian lands in ancient times (IV centuries BC -	2
	VIII century AD). Medicine of Ukraine-Russia during the Middle Ages (IX -	
	XVIII centuries)	
	1. Medicine of Trypillians, Scythians, Slavic tribes.	
	2. Medicine of Ukraine - Russia in the IX-XII centuries.	
	3. Medicine of Ukraine-Rus in the XIII-XVIII centuries.	
4	Theme 4. World medicine of modern times	2
	1.Hygiene and public health.	
	2.Normal anatomy.	
	3.General pathology.	
	4.Histology.	
	5.Medical Microbiology.	
	6.Physiology and Experimental Medicine.	
5	Theme 5. World and Ukrainian medicine of the nineteenth and twentieth	2
	centuries	
	1. World medicine and pharmacy XIX	
	2. The formation of medicine and pharmacy in the twentieth century.	
	3. Development of medicine (XIX-XX centuries) in the territory of Ukraine	
	HOURS IN GENERAL	10

#### 4.2. Plan of practical classes

#### Unit 1

№	The topic of the seminar	Number hours	
1	Theme 1. Medicine of the Ancient World	2	
	1. Medicine of the Ancient East		
	2. Medicine of Ancient Egypt		
	3. Medicine of Ancient China		
	4. Medicine of Ancient India		
	5. Medicine in Mesopotamia		
	6. Medicine of ancient Greece and Rome		
2	Theme 2. World medicine of the Middle Ages of the Arabian Caliphate. Medicine	2	
	of the early and developed of the Middle Ages. Medicine of the Renaissance.		
	1. Arabic medicine.		
	2. Medicine of Western Europe. Monastic medicine and pharmacy.		

	3. Pharmacy and medicine in the Renaissance.		
3	3 Theme 3. Medicine on the Ukrainian lands in ancient times (IV centuries BC -		
	VIII century AD). Medicine of Ukraine-Russia during the Middle Ages (IX -		
	XVIII centuries)		
	1. Medicine of Trypillians, Scythians, Slavic tribes.		
	2. Medicine of Ukraine - Russia in the IX-XII centuries.		
	3. Medicine of Ukraine-Rus in the XIII-XVIII centuries.		
4	Theme 4. World medicine of modern times	2	
	1. Hygiene and public health.		
	2. Normal anatomy.		
	3. General pathology.		
	4. Histology.		
	5. Medical Microbiology.		
	6. Physiology and Experimental Medicine.		
5	Theme 5. World and Ukrainian medicine of the nineteenth and twentieth	2	
	centuries		
	1. World medicine and pharmacy XIX		
	2. The formation of medicine and pharmacy in the twentieth century.		
	3. Development of medicine (XIX-XX centuries) in the territory of Ukraine		
	HOURS IN GENERAL	10	

# Note \* The plan of each practical training involves oral interviews throughout the topic material; sometimes writing a seminar paper.

#### 4.3 Tasks for independent work

N⁰	Theme	Number	
3/П			
	<b>UNIT 1. HISTORY OF MEDICINE</b>		
	Independent study of topics not included in the lesson plan		
1	Medicine of the primitive community (3 million –V thousand BC).	5	
2	Medicine of the ancient world (V millennium BC - V cent. AD).	5	
3	The outstanding scientist of Ancient Greece - Hippocrates. The importance of the	5	
	works of Galen for the development of medicine and science.	5	
4	World medicine of the Middle Ages of the Arab caliphates.	5	
5	Medicine of the Early and Developed Middle Ages. Renaissance medicine.	5	
6	Medicine in the Ukrainian lands in ancient times (IV millennium BC - VIII century AD).		
7	Medicine of Ukraine-Rus during the Middle Ages (IX-XVIII).	5	
8	World medicine of modern times.	5	
9	World and Ukrainian medicine in the XIX - XX centuries.5		
10	Medicine and Health Care in Ukraine The Newest Period.	5	
11	History of medicine of the region and educational institution.	5	
12	International cooperation in the field of health care. 5		
13	Traditional medicine of the peoples of the world. Medicine of the peoples of the		
	American continent before and after conquest.	5	
14	Nobel laureates in the field of medicine at the beginning of the 21st century.	5	
	HOURS IN GENERAL	70	

#### 4.4. Provision of educational process

- 1. Multimedia projectors, screens for multimedia presentations, lecture presentations.
- 2. Demo screens, laptops.
- 3. Passing tickets.

#### 5. Final control

#### List of issues of final control (credit)

- 1. The value of medical history for the preparation of a future doctor.
- 2. Sources of study of primitive medicine.
- 3. Methods of treatment in the period of primitive society.
- 4. Embryos of surgical methods of treatment in the primitive society.
- 5. General features of medicine in the countries of the Ancient World.
- 6. Medicine in the countries of ancient Mesopotamia (Sumer, Babylonia, Assyria).
- 7. Development of medical knowledge in ancient India.
- 8. The philosophical foundations of ancient Chinese medicine.
- 9. Pulse diagnosis in ancient Chinese medicine.
- 10. Anatomical knowledge in ancient China.
- 11. Ancient Chinese medicine.
- 12. Organization of Medical Affairs in Ancient Greece.
- 13. Hippocrates, his life and activities.
- 14. 24. "Hippocratic Collection", its structure and content.
- 15. Medical Ethics of Ancient Greek Doctors.
- 16. Doctors Scientists of Alexandria (Gerofil, Erasistrat).
- 17. Conditions created in Alexandria for the development of science and medicine.
- 18. Organization of Medical Affairs in Ancient Rome.
- 19. Medical system and methods of treatment of Asclepiad.
- 20. Celsus and his treatise "On Medicine."
- 21. Military medicine of ancient Rome.
- 22. Galen and galenism in the history of medicine.
- 23. Features of Byzantine culture and medicine.
- 24. Doctors scientists of the Byzantine Empire.
- 25. Monastic Hospitals and Medical Organization in the Byzantine Empire.
- 26. The development of medicine in the Arab caliphates.
- 27. Art-Razi and his works.
- 28. Ibn Sina and his "Canon of Medical Science."
- 29. Medieval European Universities.
- 30. Medieval monastery hospitals.
- 31. Scholasticism and medieval medicine.
- 32. Surgery in Medieval Europe.
- 33. Black death epidemics and leprosy in Europe in the Middle Ages.
- 34. Salerno Code of Health.
- 35. The main authorities in medieval European medicine (Galen, Aristotle, Hippocrates, Avicenna).
- 36. Alchemy and medicine in the Middle Ages.
- 37. Medicine of Kievan Rus.
- 38. Features of Renaissance medicine.
- 39. Leonardo da Vinci's Anatomical Works.

- 40. Combating scholasticism in Renaissance medicine.
- 41. Andreas Vesalius and his work "On the Structure of the Human Body".
- 42. The development of clinical medicine in the Renaissance.
- 43. Paracelsus and its medical system.
- 44. The formation of physiology as a science in the Renaissance.
- 45. Opening of small and large circulation.
- 46. The development of surgery in the late Middle Ages. Ambrose Pare.
- 47. Training of doctors in hospital schools in Russia in the XVIII century. \*
- 48. Development of experimental medicine.
- 49. Opening a vaccination method. E. Jenner.
- 50. Formation of microbiology as an independent science.
- 51. Scientific substantiation of preventive vaccinations by L. Pasteur.
- 52. The basic principles of microbiological research are the Koch Triad.
- 53. The second half of the nineteenth century. "Bacteriological era" in the development of medicine.
- 54. Fundamental changes in surgery during the XIX century.
- 55. Medical schools in Russia in the XVIII XIX centuries.
- 56. Training of doctors in Ukraine. Elisavetgrad Medical and Surgical School. Kyiv-Mohyla Academy.
- 57. Contribution of IV Buyalsky and MI Pirogov to the development of anatomy and surgery.
- 58. MI Pirogov founder of military field surgery.
- 59. Medical Faculties of Universities of Ukraine (Kharkiv, Kyiv, Odessa).
- 60. Contribution of Ukrainian physicians to the development of national and world medicine ..

#### ''0'' option for the credit card Petro Mohyla Black Sea National University Educational qualification level - master's degree Knowledge area: 22 Health care Specialty 222 Medicine Course - HISTORY OF MEDICINE

#### **Option 0**

1. The value of medical history for the preparation of a future doctor. - maximum score is 20.

2. Celsus and his treatise "On Medicine". - maximum score is 20.

3. Combating scholasticism in Renaissance medicine. - maximum score is 20.

Approved at the meeting of the Department of "International Relations and Foreign Policy", protocol number from "" 2020.

Head of the Department ProfessorO. TryhubExaminer Associate ProfessorL. Vovchuk

#### An example of the final control work

#### **Option 0**

1. Medicine of Ancient Egypt. - maximum score is 20.

2. Histology. - maximum score is 20.

#### 6. Assessment criteria and diagnostic tools for learning outcomes Control methods

- 1. Surveys (checking current knowledge and practical skills).
- 2. Test control.
- 3. Writing creative works and protecting them.

**Current control.** Examination of practical knowledge of theoretical knowledge and assimilation of practical skills and results of student's independent work. It is supervised by the teacher according to the specific purpose of the curriculum. Assessment of the level of student preparation is carried out by interviewing students, protecting creative work, writing test tasks.

The final control work is carried out upon completion of the study of all topics of the block at the last lecture of the semester.

**The final control (credit)** is allowed for students who have attended all envisaged curriculum, lectures, classroom training, have completed full-time independent work and in the course of study have accumulated points, not less than the minimum - 60 points in the semester.

#### Distribution of points that students receive

In the semester, a positive assessment in 1-5 practical classes can be from **10-20 points**. If a student has not completed at least one seminar class, ie has received a "0", then he will have to complete it. In the final control work (PCR) for block 1, the student can receive a maximum of **40 points** (for each question of 20).

Assessment of student success		
Type of activity (task)	The maximum number of points	
	Unit 1	
Theme 1	20	
Theme 2	20	
Theme 3	20	
Theme 4	20	
Theme 5	20	
Final control work	40	
Credit	60	
Points together	200	

#### Student oral assessment criteria:

#### A score of 10-20 points is scored in the case of:

- the student is fluent in certain program, knowledge and skills;
- correctly and sufficiently selects the facts necessary to answer;
- expresses his / her own attitude towards the educational material;
- the answer is clear and complete;
- the language is good.

#### A score of 5-6 points is scored in this case:

- the student uses only certain knowledge and skills;
- violates the logic of presentation;
- the answer is not sufficiently independent;
- argumentation is weak;
- there are material errors in the knowledge of factual material and conclusions;
- the language is simplified.

A score of 0 points is scored in case of ignorance of most of the material, the absence of any logic of presentation, namely:

- the student does not have the necessary skills to accomplish the task;
- does not know the main factual material.

Score in points	Rating by national scale	ECTS Score	
		Rating	Explanation
180-200	Perfectly	Α	Perfectly
			(excellent execution with only
			minor errors)
160-197	Good	В	Very good
			(above average with multiple
			errors)
150-159	Good	С	Good
			(generally correct execution
			with a certain amount of significant
			errors)
140-149	Satisfactory	D	Satisfactorily
			(not bad, but with many
			drawbacks)
120-139		$\mathbf{E}$	Enough
	Satisfactory		(performance meets the
			minimum criteria)
94-119	Unsatisfactorily	FX	Unsatisfactorily
			(reassembly)
1-93		F	Unsatisfactorily
			(with compulsory retake)

#### Compliance with the final semester rating scores in national and ECTS scores

#### 7. List of recommended literature

#### Basic

- 1. Verkhratskyi S. A. Istoriia medytsyny. K.: Zdorovia, 2011. 352 s.
- 2. Holiachenko O., Hanitkevych Ya. Istoriia medytsyny. Ternopil, Lileia, 2004. 248 s.

#### Auxiliary

1. Tsymbaliuk V. I. Istoriia ukrainskoi neirokhirurhii v portretakh. Kyiv: Feniks, 2014. 232 s.

2. Pavlovskii L I Velikie deiateli mirovoi meditsiny monografiia K DIA 2013 559 s.

3. Imena v medytsyni u vidhomoni chasu 2014 rik (persha chastyna). Kalendar znamennykh ta pam'iatnykh dat / ukl.: S.M.Bulakh, L. Ye. Kornilova, M. S. Slobodeniuk. Kyiv, 2013. 115 s.
4. Gritsak E N Populiarnaia istoriia meditsiny M Veche 2010 464 s.

5. Hanitkevych Ya. Ukrainskyi medychnyi kalendar na 2014 rik. Kyiv, 2013. 84 s.