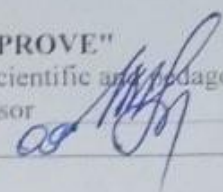


MINISTRY OF HEALTH OF UKRAINE
BUKOVINIAN STATE MEDICAL UNIVERSITY

"APPROVE"

Vice-rector for scientific and pedagogical work
Associate Professor  Igor GERUSH
"06" _____ 2021

STUDENT GUIDE
(SYLLABUS)
of studying the discipline

«BASICS OF BIOETHICS AND BIOSAFETY»

Field of knowledge 22 Healthcare
(code and name of the field of knowledge)

Specialty 222 Medicine
(code and name of the specialty)

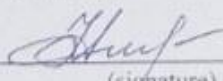
Educational degree Master
(master, bachelor, junior bachelor)

Educational year 1

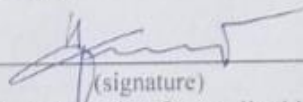
Form of study full-time
(full-time, part-time, distance)

Department pharmacology, hygiene and ecology
(name of the department)

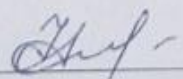
Approved at the methodical session of the department of pharmacology
"15" 06 2021 (Protocol № 15).

Head of the Department  Igor ZAMORSKII
(signature)

Approved at the methodical session of the department of hygiene and ecology
"17" 06 2021 (Protocol № 16).

Head of the Department  Leonid VLASYK
(signature)

Approved by the subject methodical commission for medical biological disciplines of the physiological
and physical/chemical profile
"30" 09 2021 (Protocol № 1).

/ Chairman of the subject methodical
commission  Svitlana TKACHUK

Chernivtsi – 2021

1. GENERAL INFORMATION ABOUT SCIENTIFIC AND PEDAGOGICAL STAFF WHO TEACH THE SUBJECT

Department	Pharmacology
Surname, name of scientific and pedagogical staff, scientific degree, academic status	Shchudrova Tetiana – PhD, associate professor shchudrova.tetiana@bsmu.edu.ua Drachuk Vira – PhD, associate professor drachuck.vira@bsmu.edu.ua Novychenko Svitlana – PhD, assistant novychenko.s@bsmu.edu.ua Yavorenko K.Y. – assistant yavorenko.kateryna@bsmu.edu.ua Masikevych A.Y. – PhD, associate professor masykevych.a@bsmu.edu.ua
Web page of the department on the official website of the university	https://www.bsmu.edu.ua/farmakologiyi/ https://www.bsmu.edu.ua/gigiyeni-ta-ekologiyi/
Department website	http://pharmacology.bsmu.edu.ua/
E-mail	pharmacology@bsmu.edu.ua hygiene@bsmu.edu.ua
Address	Chernivtsi, Popovycha str., 17 Chernivtsi, Fedkovycha str., 16
Contact phone	+38 (0372) 53-52-62; +38 (0372) 52-63-77

2. GENERAL INFORMATION ABOUT THE DISCIPLINE

Status of the discipline	normative
Number of credits	3
Total amount of hours	90
Lectures	20
Practical lessons	20
Individual work	50
Type of final control	credit

3. DESCRIPTION OF THE DISCIPLINE (ABSTRACT)

Bioethics is the study of ethical, social, and legal issues that arise in biomedicine and biomedical research. Bioethics includes medical ethics, which focuses on issues in health care; research ethics, which focuses issues in the conduct of research; environmental ethics, which focuses on issues pertaining to the relationship between human activities and the environment, and public health ethics, which addresses ethical issues in public health. Biosafety is the prevention of large-scale loss of biological integrity, focusing on both ecology and human health. Biosafety focuses on the general patterns of the occurrence of environmental and occupational hazards, methods of prevention and protection against them, and creation of health and safe conditions of human life and activity.

4. POLICY OF THE SUBJECT

4.1. List of normative documents:

- Regulations on the organization of the educational process (<https://www.bsmu.edu.ua/wp-content/uploads/2020/03/polozhennya-pro-organizacziyu-osvitnogo-proczesu-u-vdnzu-bukovinskij-derzhavnij-medichnij-universitet.pdf>);
- Instructions for assessing the educational activities of BSMU students in the implementation of the European credit transfer system of the educational process (<https://www.bsmu.edu.ua/wp-content/uploads/2020/03/bdmu-instrukcziya-shhodo-oczinyuvannya-%D1%94kts-2014-3.pdf>);

- Regulations on the procedure for reworking missed and uncredited classes (<https://www.bsmu.edu.ua/wp-content/uploads/2019/12/reworks.pdf>);
- Regulations on the appeal of the results of the final control of knowledge of higher education (<https://www.bsmu.edu.ua/wp-content/uploads/2020/07/polozhennya-pro-apelyacziyu-rezultativ-pidsumkovogo-kontrolyu-znan.pdf>);
- Codex of Academic Integrity (https://www.bsmu.edu.ua/wp-content/uploads/2019/12/kodeks_academic_faith.pdf);
- Moral and ethical codex of students (https://www.bsmu.edu.ua/wp-content/uploads/2019/12/ethics_code.docx);
- Regulations on the prevention and detection of academic plagiarism (<https://www.bsmu.edu.ua/wp-content/uploads/2019/12/antiplagiat-1.pdf>);
- Regulations on the procedure and conditions for students to choose elective courses (https://www.bsmu.edu.ua/wp-content/uploads/2020/04/nakaz_polozhennyz_vybirkovi_dyscypliny_2020.pdf);
- Rules of internal labor regulations of the Higher State Educational Institution of Ukraine "Bukovinian State Medical University" (<https://www.bsmu.edu.ua/wp-content/uploads/2020/03/17.1-bdmu-kolektivnij-dogovir-dodatok.doc>).

4.2. Policy on adherence to the principles of academic integrity of higher education students:

- independent performance of educational tasks of current and final controls without the use of external sources of information;
- cheating during control of knowledge is prohibited;
- independent performance of individual tasks and correct registration of references to sources of information in case of borrowing of ideas, statements, information.

4.3. Policy on adherence to the principles and norms of ethics and deontology by higher education students:

- actions in professional and educational situations from the standpoint of academic integrity and professional ethics and deontology;
- compliance with the rules of internal regulations of the university, to be tolerant, friendly and balanced in communication with students and teachers, medical staff of health care institutions;
- awareness of the importance of examples of human behaviour in accordance with the norms of academic integrity and medical ethics.

4.4. Attendance policy for higher education students:

- attendance at all training sessions (lectures, practical (seminar) classes, final modular control) is mandatory for the purpose of current and final assessment of knowledge (except for respectable reasons).

4.5. Deadline policy and completion of missed or uncredited classes by higher education students:

- reworks of missed classes are held according to the schedule of missed or uncredited classes and consultations.

5. PRECISIONS AND POST-REQUIREMENTS OF THE EDUCATIONAL DISCIPLINE (INTERDISCIPLINARY RELATIONS)

List of disciplines, on which the study of academic discipline is based	List of academic disciplines, for which the basis is laid as a result of studying the discipline
Human Anatomy	Internal Medicine
Human Physiology	Surgery
Medical Biology	Pediatrics
Medical Physics	Hygiene and Ecology
Biochemistry	
Philosophy	
History of Medicine	

6. PURPOSE AND TASKS OF THE EDUCATIONAL DISCIPLINE:

6.1. The purpose of studying the discipline is:

- formation of a conscious approach to the issue of personal safety of a person and the safety of other people, and material and moral values;
- development of the ability to assess potential hazards, determine methods of reliable protection against them;
- studying the laws, principles and rules for regulating the professional behaviour of medical practitioners and researchers,
- promoting the safety of the use of new medical technologies and warning doctors and scientists about the inadmissibility of harming a person, humanity and the biosphere in general;
- formation of respect for the life and dignity of a healthy and sick person, whose interests should always be valued above the interests of science or society;
- development of the ability not only to identify and analyse conflict situations arising at the intersection of medicine, biology, philosophy and jurisprudence but also to determine specific ways to resolve them;
- development of the ability to be guided by new ethical principles and to act on the basis of ethical considerations (motives) in the practice of health care.

6.2. The main tasks of studying the discipline are:

- to determine the basic principles of safe human life;
- to anticipate the consequences of violations of the valueological foundations of a healthy lifestyle and their impact on the safety of human life;
- to analyse and assess situations that are dangerous to people's lives, their health and professional activities, and independently make decisions on taking urgent measures.
- to be guided by the principles of bioethics and act on the basis of ethical considerations to prevent a global environmental crisis, which can become catastrophic and irreversible;
- to be able to identify, analyse, resolve ethical questions or disagreements that emerge in the practice of health care.

7. COMPETENCIES, THE FORMATION OF WHICH IS CONTRIBUTED BY THE DISCIPLINE:

7.1. Integral competence:

Ability to solve typical and complex specialized and practical problems in the professional activity of a doctor using the provisions, theories and methods of basic, chemical, technological, biomedical and socio-economic sciences; integrate knowledge and solve complex issues, formulate judgments on insufficient or limited information; clearly and unambiguously communicate their conclusions and knowledge, reasonably substantiating them, to the professional and non-professional audience.

7.2. General competencies:

GC1 Abstract thinking, analysis and synthesis, the ability to learn and train.

GC2 Ability to apply knowledge in practical situations.

GC3 Knowledge and understanding of professional activity.

GC4 Ability to adapt and act in a new situation.

GC5 Ability to make an informed decision, interpersonal and communication skills.

GC6 Knowledge and understanding of the subject area and profession.

GC9 Ability to act socially responsibly and consciously.

GC10 Striving for the preservation of the environment

7.3. Professional (special) competencies:

PC6 Ability to determine the principles and nature of treatment of diseases.

PC19 Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population

8. RESULTS OF STUDYING THE DISCIPLINE

As a result of studying the discipline student must:

8.1. Know:

- the basic principles of safe human life;
- the negative environmental and occupational factors and potential hazards, and methods of reliable protection against them;
- the principles of nooethics;
- the basic problems, principles, bioethical norms and laws;
- bioethical basis of medical professional activity;
- bioethics health policy.

8.2. Be able to:

- to identify the negative and dangerous environmental factors on the basis of the data of the sanitary-preventive institution by comparing with the existing norms and standards;
- to analyse the state of health of a certain contingent on the basis of official data by comparison with average indicators;
- to determine the relationship between the state of the environment and the state of health of a certain contingent on the basis of data about them;
- to develop preventive measures on the basis of data on the relationship between the state of the environment and the state of health of a certain contingent;
- to identify, analyse, resolve ethical questions or disagreements that emerge in the practice of health care.

8.3. Demonstrate:

- the knowledge of the basic principles of safe human life;
- the understanding of impact of socio-economic and biological determinants on the health of the individual, family, population
- the ability to identify, analyse, resolve ethical issues that emerge in the practice of medicine;
- the understanding of the basic problems, principles, bioethical norms and laws;
- the knowledge of the bioethical basis of medical professional activity and health policy.

9. INFORMATIONAL SCOPE OF THE DISCIPLINE

Content module 1. BASICS OF BIOSAFETY

Topic 1. Theoretical bases of Safety and Security of Life.

Subject "Safety of life. The main tasks of the subject. Axiom of potential danger. Classification of hazards. Risk concept. Risk management. Principles for determining the acceptable level of negative factors related to human health. Principles and methods of ensuring the safety of human life. Basics of life safety management. System analysis of life safety. Legal security of human life.

Topic 2. Human in the system "human – the environment".

Man as a bioenergy system. Unity of biological systems of the human body. Factors that ensure human health. Functional systems of the human body in ensuring its safety. Protective functions of the human body. The role of receptors and analysers of the human body in the assessment of factors of the system "man - habitat". Weber-Fechner law. Psychological factors that determine a person's personal safety. Psychophysiological state of the organism. Dependence of the body on external stimuli. Rational modes of work and rest. The external environment and the environment of human life. Classification and characteristics of the human environment. Classification and characterization of negative factors of the human environment. Physical

negative factors. Negative factors of energy origin. Chemical negative factors. Biological anthropogenic negative factors. Psychophysical negative factors. Social dangers. Methods and means of human protection. Features of the state of ecological safety of Ukraine. Comprehensive risk assessment of anthropogenic factors on human safety and health.

Topic 3. The role of the environment in the system "human - the environment".

The external environment and the environment of human life. Classification and characteristics of the human life environment. Classification and characterization of negative factors of the human environment. Physical negative factors. Negative factors of energy origin. Chemical negative factors. Biological anthropogenic negative factors. Psychophysical negative factors. Social dangers. Methods and means of human protection. Features of the state of ecological safety of Ukraine. Comprehensive risk assessment of the impact of anthropogenic factors on human safety and health.

Topic 4. Providing the safety of human life.

Human health as a biomedical and social category. Spiritual, mental, physical, social aspects of human health. Health and pathology. Valeology and sanology, definitions, essence and subject of their study. Individual health indicators. Factors that ensure the stability of health. Risk factors and risk groups. The concept of lifestyle, its features in modern conditions. Wellness traditional and non-traditional systems, methods of recovery. The harmful effects on the human body of alcohol, smoking and drugs. Threat to personal and public life in their use. Methods of combating bad habits.

Topic 5. Food safety as a component of safe lifestyle.

The impact of nutrition on human life. Requirements for food quality and safety. Food additives as possible contaminants. Consequences of food contamination by pesticides. Growth stimulants and other chemicals used in agriculture. Genetically modified products and their danger to human health. Radionuclides in food. Nutrition in conditions of radiation pollution. Toxic substances in food: permissible background residues, maximum permissible level of residues in food. Methods for reducing the amount of pollutants in food.

Content module 2. BASICS OF BIOETHICS

Topic 6. Introduction to bioethics. Bioethical basis of medical professional activity.

Definition, objectives, and history of bioethics. Problems, principles and bioethical norms. Bioethical basis of medical professional activity. Information problems. The consent for medical treatment. Capacity of the patient. Disclosure. Relations models between doctor and patient. Voluntariness (free choice). Truth telling. Principle of confidentiality (medical secrecy).

Topic 7. Research ethics.

Bioethical, social and jural problems of the clinical trials of new drugs and medical technologies and their introduction into clinical practice. Genetics and biotechnology. Bioethical, social and jural problems of medical genetics, genetic engineering, regenerative therapy. Cloning.

Topic 8. Reproductive medicine: ethical, social, jural problems. Bioethical aspects of donorship.

Bioethical problems of family planning. Assisted reproduction. Assessment of artificial abortion. Organ transplantation. Bioethical aspects of surgery, transfusiology. Donorship. Usage of stem cells.

Topic 9. Bioethical aspects of living, dying, resuscitation and death. Infectious disease ethics.

End of life care. Bioethical, social and jural problems of euthanasia and assisted suicide. Infectious disease ethics. HIV-infection and AIDS as ethical and social problems. Bioethical, legal and social issues related to alcohol and drug abuse.

Topic 10. Social ethics of medicine.

Social justice and moral obligations. Bioethics and effective health care. Bioethics health policy. Clinical ethics and law.

10. STRUCTURE OF EDUCATIONAL DISCIPLINE

Names of content modules and topics	Amount of hours				
	Total	including			
		Classroom		Independent students' work	Individual work
		Lectures	Practicals		
1	2	3	4	5	6
Content module 1. BASICS OF BIOSAFETY					
Topic 1. Theoretical bases of Safety and Security of Life	8	2	2	4	
Topic 2. Human in the system "human – the environment".	8	2	2	4	
Topic 3. The role of the environment in the system "human - the environment".	9	2	2	5	
Topic 4. Providing the safety of human life.	9	2	2	5	
Topic 5. Food safety as a component of safe lifestyle.	11	2	2	7	
Total on the content module 1	45	10	10	25	
Content module 2. BASICS OF BIOETHICS					
Topic 1. Introduction to bioethics. Bioethical basis of medical professional activity.	8	2	2	4	
Topic 2. Research ethics.	9	2	2	5	
Topic 3. Reproductive medicine: ethical, social, jural problems. Bioethical aspects of donorship.	10	2	2	6	
Topic 9. Bioethical aspects of living, dying, resuscitation and death. Infectious disease ethics.	9	2	2	5	
Topic 10. Social ethics of medicine.	9	2	2	5	
Total on the content module 2	45	10	10	25	
TOTAL HOURS	90	20	20	50	

11. THEMATIC PLAN OF LECTURES

№	Name of topic	Amount of hours
Content module 1. BASICS OF BIOSAFETY		10
1	Theoretical bases of Safety and Security of Life	2
2	Human in the system "human – the environment".	2
3	The role of the environment in the system "human - the environment".	2
4	Providing the safety of human life.	2

5	Food safety as a component of safe lifestyle.	2
	Content module 2. BASICS OF BIOETHICS	10
6	Introduction to bioethics. Bioethical basis of medical professional activity.	2
7	Research ethics.	2
8	Reproductive medicine: ethical, social, jural problems.	2
9	Bioethical aspects of living, dying, resuscitation and death.	2
10	Social ethics of medicine.	2
	Total	20

12. THEMATIC PLAN OF PRACTICAL (SEMINAR) CLASSES

№	Name of topic	Amount of hours
	Content module 1. BASICS OF BIOSAFETY	10
1	Theoretical bases of Safety and Security of Life	2
2	Human in the system "human – the environment".	2
3	The role of the environment in the system "human - the environment".	2
4	Providing the safety of human life.	2
5	Food safety as a component of safe lifestyle.	2
	Content module 2. BASICS OF BIOETHICS	10
6	Bioethical basis of medical professional activity. Information problems.	2
7	Research ethics. Bioethical problems of the clinical trials of new drugs, medical genetics, genetic engineering, regenerative therapy.	2
8	Reproductive medicine: ethical, social, jural problems. Bioethical aspects of surgery, transfusiology, donorship, usage of stem cells.	2
9	Bioethical aspects of living, dying, resuscitation and death. Infectious disease ethics. Bioethical issues related to alcohol and drug abuse.	2
10	Social ethics of medicine. Bioethics and effective health care. Bioethics health policy.	2
	Total	20

13. THEMATIC PLAN OF INDIVIDUAL WORK

№	Name of topic	Amount of hours
1	Emergencies in times of peace and wartime.	2
2	Traditional vs non-traditional health systems.	2
3	The mechanism of the harmful effects of alcohol, smoking and drugs on the human body.	2
4	Consequences of food contamination with pesticides.	2
5	Dangerous infectious diseases in the practice of a health worker.	2
6	Models of the relationship between doctor and patient in modern medicine.	2
7	Bioethical and legal problems of coexistence of "traditional" (scientific) and "non-traditional" medicine.	2
8	Medical and ethical problems of human and animal cloning.	2
9	DNR order in the practice of a health worker.	2
10	Bioethical issues of the different methods of family planning.	2
11	Case studies & MCQs	30
	Total	50

14. LIST OF INDIVIDUAL TASKS (if provided)

- Active membership in the student scientific society
- Participation in scientific conferences
- Publication of abstracts / articles in periodicals (journals, abstract books).
- Writing essays, literature review

15. LIST OF THEORETICAL TASKS «FUNDAMENTALS OF BIOETHICS AND BIOSAFETY»

- Content module 1. BASICS OF BIOSAFETY
The main tasks of the subject
Safety of life.
- Axiom of potential danger. Classification of hazards. Risk concept. Risk management.
- Principles for determining the acceptable level of negative factors related to human health. Principles and methods of ensuring the safety of human life.
- Basics of life safety management. System analysis of life safety. Legal security of human life. Man as a bioenergy system. Unity of biological systems of the human body. Factors that ensure human health.
- Functional systems of the human body in ensuring its safety. Protective functions of the human body. The role of receptors and analysers of the human body in the assessment of factors of the system "man - habitat". Weber-Fechner law.
- Psychological factors that determine a person's personal safety. Psychophysiological state of the organism. Dependence of the body on external stimuli.
- Rational modes of work and rest. The external environment and the environment of human life. Classification and characteristics of the human environment.
- Classification and characterization of negative factors of the human environment. Physical negative factors. Negative factors of energy origin. Chemical negative factors. Biological anthropogenic negative factors. Psychophysical negative factors. Social dangers.
- Methods and means of human protection. Features of the state of ecological safety of Ukraine. Comprehensive risk assessment of anthropogenic factors on human safety and health.
- The external environment and the environment of human life. Classification and characteristics of the human life environment.
- Classification and characterization of negative factors of the human environment.
- Methods and means of human protection. Features of the state of ecological safety of Ukraine. Comprehensive risk assessment of the impact of anthropogenic factors on human safety and health.
- Human health as a biomedical and social category. Spiritual, mental, physical, social aspects of human health. Health and pathology.
- Valeology and sanology, definitions, essence and subject of their study. Individual health indicators. Factors that ensure the stability of health. Risk factors and risk groups.
- The concept of lifestyle, its features in modern conditions. Wellness traditional and non-traditional systems, methods of recovery.
- The harmful effects on the human body of alcohol, smoking and drugs. Threat to personal and public life in their use. Methods of combating bad habits.
- The impact of nutrition on human life. Requirements for food quality and safety.
- Food additives as possible contaminants. Consequences of food contamination by pesticides. Growth stimulants and other chemicals used in agriculture.
- Genetically modified products and their danger to human health. Radionuclides in food. Nutrition in conditions of radiation pollution.
- Toxic substances in food: permissible background residues, maximum permissible level of residues in food.
- Methods for reducing the amount of pollutants in food.

Content module 2. BASICS OF BIOETHICS

- Definition and objectives of bioethics. Bioethical principles and norms.
- Bioethical basis of medical professional activity. Information problems. The consent for medical treatment.
- Capacity of the patient. Disclosure.
- Relations models between doctor and patient. Voluntariness (free choice). Truth telling.
- Principle of confidentiality (medical secrecy).
- Bioethical, social and jural problems of the clinical trials of new drugs.
- Bioethical aspects of new medical technologies and their introduction into clinical practice. Bioethical, social and jural problems of the medical genetics, genetic engineering.
- Bioethical, social and jural problems of the regenerative therapy. Bioethical, social and jural problems of the cloning.
- Reproductive medicine: ethical, social, jural problems. Bioethical aspects of the donorship.
- Bioethical problems of family planning.
- Bioethical aspects of assisted reproduction. Assessment of artificial abortion. Bioethical aspects of organ transplantation.
- Bioethical aspects of surgery, transfusiology. Bioethical aspects of donorship.
- Bioethical aspects of usage of stem cells.
- Bioethical aspects of living, dying, resuscitation and death. End of life care.
- Bioethical, social and jural problems of euthanasia and assisted suicide.
- Infectious disease ethics. HIV-infection and AIDS as ethical and social problems. Bioethical, legal and social issues related to alcohol and drug abuse.
- Social ethics of medicine.
- Social justice and moral obligations.
- Bioethics and effective health care. Bioethics health policy. Clinical ethics and law.

16. LIST OF PRACTICAL SKILLS AND TASKS

- to identify the negative and dangerous environmental factors on the basis of the data of the sanitary-preventive institution by comparing with the existing norms and standards;
- to analyse the state of health of a certain contingent on the basis of official data by comparison with average indicators;
- to determine the relationship between the state of the environment and the state of health of a certain contingent on the basis of data about them;
- to plan preventive measures on the basis of data on the relationship between the state of the environment and the state of health of a certain contingent;
- to identify, analyse, resolve ethical issues or disagreements that emerge in the practice of health care.

17. METHODS AND FORMS OF ASSESSMENT

During the study of the discipline, all types of student activities are subject to control, both current (at each lesson) and final (during control activities).

Module control is an assessment of the student's knowledge of the module material. The semester ends with a final assessment (credit).

The assessment of students' knowledge is carried out during practical classes and includes testing knowledge of theoretical and practical material studied in previous courses, conducted by oral answers, case studies, multiple-choice questions.

Current control of students' knowledge is carried out during practical classes and includes testing of knowledge of theoretical material and control of mastering practical skills, which are provided by methodical development of classes on relevant topics. Testing of students' knowledge is carried out with the help of oral face-to-face interviews, solving test problems of varying severity, solving typical and atypical situational problems, as well as multiple-choice questions.

Intermediate control of students' knowledge is carried out during the final tests during the last lesson of the content module.

Final assessment of students' knowledge is carried out at the last practical lesson after completion of the module in the form of credit. Students show the knowledge of theoretical material (according to the list of questions). In addition, students perform practical work that is attached to the task and solve situational problems, which is also taken into account when assessing their knowledge.

The student receives a grade of "passed" if he has completed all types of work provided by the curriculum of the discipline, attended all classes - lectures, seminars, defined by the thematic plan of the discipline (if there are missed classes - reworked them in time), scored the total points in the study of the discipline not less than 120.

A student receives a grade of "failed" if the student was absent from classes (seminars and lectures) and the number of points for the current control is less than the minimum. A student who, for valid or non-valid reasons, has missed classes is allowed to rework them until a certain deadline.

18. EVALUATION OF THE LEVEL OF STUDENT TRAINING IN THE DISCIPLINE

Procedure, methods and criteria for assessing the current educational activities, methods and criteria for assessing during the final module control, assessment of the discipline as a whole).

Distribution of points assigned to students (with notes: - on the maximum and minimum number of points for studying the module, - on the conversion of points into traditional grades "5", "4", "3", "2" when mastering the topic of the module; - on the minimum number of points for admission to the final modular control (FMC); - the minimum number of points for the module control).

Number of module number of study hours / number of credits ECTS	Number of content modules, their numbers	Number of practical classes	Conversion into point of the traditional scale					Scores for individual task	Minimum score *
			Traditional scale						
			"5"	"4"	"3"	"2"			
Module 1 90/3	2 (№№ 1-2)	10	20	15	12	0	-	120	

The maximum number of points (200 points) that a student can score for the discipline is calculated by multiplying the number of points corresponding to the grade "5" - 20 points × 10 topics = 200.

The minimum number of points that a student must score when studying the discipline is calculated by multiplying the number of points corresponding to the grade "3" - 12 points × 10 topics = 120. Obtaining the minimum number of points (120) per module is a prerequisite for grading "passed".

N.B. Assessment of current educational activities, module control and discipline in general is carried out in accordance with the "Instructions for assessing the educational activities of students of Bukovinian State Medical University in the implementation of the European credit transfer system of educational process" (approved by the Academic Council of May 29, 2014, protocol 9).

19. RECOMMENDED LITERATURE

Basic

1. The Cambridge Textbook of Bioethics, by Peter Singer (Editor), A.M. Viens. Cambridge University Press, 2008
2. Bioethics. An Introduction, by Marianne Talbot. Cambridge University Press, 2012
3. Introduction to Bioethics by John A. Bryant; Linda Baggott la Velle. Wiley-Blackwell, 2018
4. The Basics of Bioethics by Robert M. Veatch; Laura K. Guidry-Grimes. Taylor and Francis; 2019
5. Biological Safety: Principles and Practices by Dawn P. Wooley (Editor), Karen B. Byers (Editor). ASM Press; 2017.

19.3 Information resources

1. <http://moodle.bsmu.edu.ua/course/enrol.php?id=1912>
2. <https://www.edx.org/course/introduction-to-bioethics>
3. <https://online-learning.harvard.edu/course/bioethics-law-medicine-and-ethics-reproductive-technologies-and-genetics?delta=1>
4. <https://www.conted.ox.ac.uk/courses/bioethics-for-beginners-online>
5. <https://www.futurelearn.com/courses/biosecurity>

20. COMPILERS OF THE STUDENT HANDBOOK (SYLLABUS)

Shchudrova Tetiana – associate professor, department of pharmacology

Yavorenko Kateryna – assistant, department of hygiene and ecology