

MINISTRY OF HEALTH PROTECTION OF UKRAINE
KHARKIV NATIONAL MEDICAL UNIVERSITY

Department of Radiology and Radiation Medicine
Academic year 2024 / 2025

SYLLABUS OF THE EDUCATIONAL COMPONENT

" Fundamentals of radiology in nursing "

(name educational component)

Selective educational component

The form of obtaining education is face-to-face, distance learning

Branch knowledge 22 "Health care"

Specialty « 223 "Nursing" _____

Educational and professional program "Nursing"
first (bachelor) level of higher education 4 years
of study

Course 4

Syllabus educational component was
considered at the meeting department
radiology and radiation of medicine

Protocol from

August 30 , 2021 № 1

Head of Department



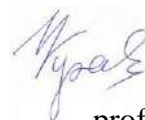
_____ Prof. Starenky V.P.

Approved by the Methodical Commission of
KhNMU on the problems of professional training
of a therapeutic profile

Protocol from

August 31, 2021 № 1

Head



_____ prof. Kravchun P.G.

DEVELOPERS OF THE SYLLABUS:

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2. Olga Mykolaivna Astap'eva, associate professor of the Department of Radiology and Radiation Medicine, candidate of medical sciences.

DATA ON TEACHERS TEACHING THE EDUCATIONAL COMPONENT

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Face-to-face consultations: by prior arrangement;

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Online consultations: Moodle, ZOOM, GoogleMeet systems according to the schedule;

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INTRODUCTION

The syllabus of the educational component " Fundamentals of Radiology in Nursing " is drawn up in accordance with the educational and professional program (hereinafter referred to as "Nursing") and the Standard of Higher Education of Ukraine (hereinafter referred to as the Standard), first (bachelor) level, field of knowledge 22 "Health Care" , specialty 223 "Nursing"

Description of the educational component (abstract)

The course "Fundamentals of radiology in nursing" belongs to one of the leading links in the system of specialized medical care, plays an important role at the border of competences of various clinical services. It is based on the study of previous educational components that students receive in parallel with the study of this course.

The syllabus is arranged using modern pedagogical principles of organizing the educational process of higher education.

The subject of study of the educational component is the theory and practice of using sources of ionizing radiation for diagnosis and treatment of diseases, as well as the biological effect of ionizing radiation .

Interdisciplinary connections: The study of a discipline involves a connection in the teaching process between individual disciplines, which ensures optimization of students' perception of educational material. Didactic means of forming professionally significant personal qualities in students are integration training complexes, which include a system of practical classes using interdisciplinary connections. The integration of learning is the optimization of convergence, the connection of sciences, which occurs in parallel with the processes of differentiation.

1st level interdisciplinary integration - material is integrated into in the middle of one specific subject.

2nd level provides association conceptual and informational spheres different discipline for the best memorization information, accompanying repetition, additional introduction to the topic material

3rd level requires surgery tasks comparative and generalizing study that is expressed in students' practice skill compare and contrast phenomena and objects.

4th level - individual creativity of the student involves independent comparison of facts, judgments, establishment connections and regularities, application learned educational skill

Formation professional competence on a permanent basis requires a wide application of the interdisciplinary method integration with implementation is optimal interdisciplinary integration not lower than the 3rd level training with encouragement to individual creativity " Fundamentals of radiology in nursing " provides and integration teaching with other disciplines and formation skill apply knowledge of the basics of radiology in the process further study and in professional activity

The main provisions of the academic discipline should be applied when studying related disciplines during the 4th year of study.

Prerequisites The study of the educational component involves the prior assimilation and integration of previous educational disciplines, as well as having practical skills in caring for patients during radiation studies and victims of accidental exposure, including children and their management in polyclinic and inpatient conditions.

Post-requisites. The main provisions of the academic discipline should be applied when studying related disciplines during the 4th year of study, it is the basis for preparing for the EDKI licensing exam, preparation for studying in institutions of higher education on programs of the third educational and scientific level of higher education.

Link to the page of the academic discipline in MOODLE:
<http://distance.knmu.edu.ua>

1. PURPOSE AND OBJECTIVES OF THE EDUCATIONAL DISCIPLINE

1.1. The purpose of teaching the educational component " Fundamentals of radiology in nursing " is for students to acquire the ability to:

- Analyze the role of a nurse in the preparation and care of patients performing diagnostic and therapeutic radiological procedures.
- Determine possibilities and choose a method of supervision and assistance to patients of radiological departments.
- Choose optimal methods of radiation safety during radiological procedures.

Achievement these goals will allow master knowledge and skills which necessary for immediate formation a professional own affairs, as well as for study others educational theoretical and clinical disciplines in higher education medical educational institutions.

1.2. The main ones tasks of studying the educational component " Fundamentals of radiology in nursing " is available for 4th year students acquirers of competences according to the general and professional competences of the educational and provide basic knowledge and skills in the field of radiology, which are important for nurses in radiology and radiology departments. Namely:

-Physical foundations of diagnostic radiology: radiation, ionizing and non-ionizing. Physical characteristics of radiation and the possibility of their use in medicine.

- Radiobiological and the basics of radiation therapy. Dosimetry.

- Organ or system specialties: cardiac, thoracic, gastrointestinal, dental, genitourinary, musculoskeletal, vascular radiology, mammography.

- Application of routine radiological methods, angiography, computer tomography, magnetic resonance imaging, nuclear medicine and preparation of patients for these procedures.

-General interventional procedures, such as guided biopsy and drainage procedures.

-Measures in emergency cases.

1.3 Competences and learning outcomes , the formation of which contributes to the discipline :

1.3.1. The study of the academic discipline ensures that students acquire the following **competencies**:

Integral:

the ability to solve typical and complex specialized tasks and practical problems in professional activities in the field of health care, or in the learning process, which involves conducting research and/or implementing innovations and is characterized by the complexity and uncertainty of conditions and requirements;

General:

GC 03. Ability to abstract thinking, analysis and synthesis

GC 04. Ability to apply knowledge in practical situations

GC 05. Knowledge and understanding of the subject area and understanding of professional activity

Special (professional, subject):

PC 01. Ability to apply professional and legal standards in everyday professional practice.

PC 06. Ability to effectively apply a set of professional skills (skills), medical devices, interventions and actions in assessing the functional state of patients/clients, preparing them for diagnostic studies and taking biological material for laboratory studies.

PC 13. The ability to identify the relationship between clinical manifestations of diseases and the results of additional research methods.

1.3.1. The study of the academic discipline ensures that the students acquire the following program outcomes of study:

POS 2. Carry out nursing diagnosis: identify and assess the patient's problems.

In the conditions of health care facilities, at home, predictable circumstances, to be able to identify the real problems of the patient, assess their priority and establish a nursing diagnosis.

POS 6. To ensure a healthy microclimate in the team. Using the principles of nursing ethics and deontology, the rules of interpersonal communication in order to create a favorable psychological microclimate, be able to:

- communicate with the patient and members of his family or close environment, medical staff;
- solve ethical and deontological problems in the process of working with the patient and his family members; consider and analyze professional mistakes in the team; conduct training for junior and technical personnel.

POS 7. Participate in monitoring of healthy and sick population, rehabilitation and dispensary supervision.

In the conditions of health care facilities, at home and in the community, using the current orders of the Ministry of Health of Ukraine, in order to form, preserve and improve the health of the adult and child population, be able to:

- keep records of dispensary population groups;
- to calculate and analyze statistical indicators of dispensation efficiency;
- to conduct explanatory work among patients of different dispensary groups;
- keep records of health groups;
- calculate and evaluate individual indicators and indicators of the complex effect of the microclimate on the human body;
- determine the stages of medical and social rehabilitation of the patient, tasks for each stage;
- make a complex of rehabilitation measures depending on the profile, course, period of the disease or injury;
- conduct a census of the child population.

POS 14. To be able to prepare the patient, collect and direct biological material for laboratory and instrumental research.

POS 18. Organize and conduct training of patients and their family members on medical issues.

POS 19. Conduct medical and hygienic propaganda.

1.3.2. The study of the academic discipline ensures that students acquire the following **social skills (Softskills)** :

- communication (implemented through: the method of working in groups and brainstorming during the analysis of clinical cases, the method of presenting the results of independent work and defending them in a group, business games),
- teamwork (implemented through: the method of working in groups and brainstorming during the analysis of clinical cases),
- conflict management (implemented through: business games),
- time management (implemented through: a method of self-organization during auditory work in groups and independent work),
- leadership skills (implemented through: a method of presenting the results of independent work and defending them in a group, business games).

2. INFORMATION VOLUME OF THE EDUCATIONAL DISCIPLINE

Name indicators	Field of knowledge, specialty, educational degree, OPP	Characteristics of the academic discipline	
		daytime form of education	extramural form teaching
The number of credits is 3.0	Branch of knowledge educational program for training specialists of the second (master's) level of higher education training 22 "Health care" (code and name)	Selective	
The total number of hours is 90	Specialty: 223 "Nursing" (code and name) Specialization:	Year of training (course):	
		4th	4th
		Semester	
		7, 8th	7, 8th
Hours for daytime (or evening) study: classrooms - 30 independent student work - 60	— Educational degree: master OPP " Nursing"	Lectures	
		0 hours	0 hours
		Practical, seminar	
		30 hours	hours
		Laboratory	
		hours	hours
		Independent work	
		60 hours	hours
Individual tasks: h.			
Type of final control: diff. credit			

2.1 Description of disciplines

2.2.1 Lectures

Not provided for in the curriculum

2.2.2 Seminar classes

Not provided for in the curriculum

2.2.3 Practical classes

No s/p	Topic name	Number hours	Methods teaching	Forms control
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1	Introduction to radiology. History of radiology. Review of basic principles of radiology. The role of radiology in modern medicine. Types of radiological studies.	4	Narrative-explanatory, conversation, illustration, demonstration, presentation, videos, discussion,	Oral survey (individual and face-to-face); written survey; test control;
	Types of radiation therapy. Types of radionuclide therapy.		simulation of situations, delegation of authority, case method, debate, method "Brainstorming", virtual consultation, standardized patient, use of mannequins	
2	Radioactivity and dose. Types of ionizing radiation. Biological effect of ionizing radiation. Dosimetry of ionizing radiation: units and methods of determining radioactivity and radiation dose.	4	Narrative-explanatory, conversation, illustration, demonstration, presentation, videos, discussion, simulation of situations, delegation of authority, case method, debate, method "Brainstorming", virtual consultation, standardized patient, use of mannequins	Oral survey (individual and face-to-face); written survey; test control;

3.	Radiation safety and protection. Principles of radiation safety. Measures to protect staff and patients in radiological departments. Legislative aspects of radiation safety.	4	Narrative-explanatory, conversation, illustration, demonstration, presentation, videos, discussion, simulation of situations, delegation of authority, case method, debate, method "Brainstorming",	Oral survey (individual and face-to-face); written survey; test control;
			virtual consultation, standardized patient, use of mannequins	
4	Preparation of patients for radiological procedures. Preparation and care of patients, during and after radiological procedures. Preparation of tools and materials for procedures. Practical aspects of the work of a nurse in radiology.	4	Narrative-explanatory, conversation, illustration, demonstration, presentation, videos, discussion, simulation of situations, delegation of authority, case method, debate, method "Brainstorming", virtual consultation, standardized patient, use of mannequins	Oral survey (individual and face-to-face); written survey; test control;

5	<p>Interpretation and use of radiological findings. Basics of interpretation of radiological images. Ways of interaction with radiologists and other medical specialists. The role of the nurse in the process of radiological diagnosis and therapy.</p>	4	<p>Narrative-explanatory, conversation, illustration, demonstration, presentation, videos, discussion, simulation of situations, delegation of authority, case method, debate, method "Brainstorming", virtual consultation,</p>	<p>Oral survey (individual and face-to-face); written survey; test control;</p>
			<p>standardized patient, use of mannequins</p>	
6	<p>Actions of all levels of medical personnel during accidents at nuclear power plants and/or during the use of nuclear weapons by the aggressor.</p>		<p>Narrative-explanatory, conversation, illustration, demonstration, presentation, videos, discussion, simulation of situations, delegation of authority, case method, debate, method "Brainstorming", virtual consultation, standardized patient, use of mannequins</p>	<p>Oral survey (individual and face-to-face); written survey; test control;</p>

7	Deontological aspects of behavior and interaction of secondary medical personnel in radiodiagnostic and radiotherapeutic departments.		Narrative-explanatory, conversation, illustration, demonstration, presentation, videos, discussion, simulation of situations, delegation of authority, case method, debate, method "Brainstorming", virtual consultation, standardized patient, use of mannequins	Oral survey (individual and face-to-face); written survey; test control;
8	Test	2		Oral survey (individual and face-to-face); written survey; test control;
	Total hours	30		

2.2.4. Laboratory classes

Not provided for in the curriculum

2.2.5. Independent work

No s/p	Topic name	Number hours	Methods teaching	Forms control
1	Types and properties of ionizing radiation (IR). Basics of the biological action of IV . Deterministic and stochastic effects of IP.	4	- electronic information (presentations, video materials, methodical recommendations) - innovative (casemethod)	- self-control, - use of acquired skills while working in the classroom (analysis of laboratory data, establishment of clinical diagnosis, etc.)

2	Physical and technical foundations of projection radiology. Natural tissue contrast. artificial contrasting	4	- electronic information (presentations, video materials, methodical recommendations) - innovative (casemethod)	- self-control, - use of acquired skills while working in the classroom (analysis of laboratory data, establishment of clinical diagnosis, etc.)
3	Preparation of patients for radiation examinations of the musculoskeletal system systems.	5	- electronic information (presentations, video materials, methodical recommendations) - innovative (case method)	- self-control, - use of acquired skills while working in the classroom (analysis of laboratory data, establishment of clinical diagnosis, etc.)
4	Age characteristics of patients of radiodiagnostic departments, and the basics of their care.	4	- electronic information (presentations, video materials, methodical recommendations) - innovative (case method)	- self-control, - use of acquired skills while working in the classroom (analysis of laboratory data, establishment of clinical diagnosis, etc.)
5	Age and characteristics of patients in radio therapy departments, and the basics of their care.	5	- electronic information (presentations, video materials, methodical recommendations) - innovative (case method)	- self-control, - use of acquired skills while working in the classroom (analysis of laboratory data, establishment of clinical diagnosis, etc.)
6	Functional duties of the average medical personnel during X-ray examinations of the gastrointestinal tract.	4	- electronic information (presentations, video materials, methodical recommendations) - innovative (casemethod)	- self-control, - use of acquired skills while working in the classroom (analysis of laboratory data, establishment of clinical diagnosis, etc.)
7	Functional responsibilities of medical personnel during X-ray examinations of diseases of the airways and lungs.	4	- electronic information (presentations, video materials, methodical recommendations) - innovative (case method)	- self-control, - use of acquired skills while working in the classroom (analysis of laboratory data, establishment of clinical diagnosis, etc.)

8	Functional duties of the average medical personnel during X-ray examinations of the cardiovascular system.	4	- electronic information (presentations, video materials, methodical recommendations) - innovative (case method)	- self-control, - use of acquired skills while working in the auditorium (analysis of laboratory data, establishment of clinical diagnosis, etc.)
9	Functional duties of secondary medical personnel in radiotherapy departments.	5	- electronic information (presentations, video materials, methodical recommendations) - innovative (casemethod)	- self-control, - use of acquired skills while working in the classroom (analysis of laboratory data, establishment of clinical diagnosis, etc.)
10	Functional duties of the average medical personnel in contact with sources of ionizing radiation	4	- electronic information (presentations, video materials, methodical recommendations) - innovative (casemethod)	- self-control, - use of acquired skills while working in the classroom (analysis of laboratory data, establishment of clinical diagnosis, etc.)
11	Basic principles of work and interaction of medical personnel during radionuclide diagnostics and radionuclide therapy.	5	- electronic information (presentations, video materials, methodical recommendations) - innovative (casemethod)	- self-control, - use of acquired skills while working in the classroom (analysis of laboratory data, establishment of clinical diagnosis, etc.)
12	Medical documentation in radiodiagnostic departments.	4	- electronic information (presentations, video materials, methodical recommendations) - innovative (casemethod)	- self-control, - use of acquired skills while working in the classroom (analysis of laboratory data, establishment of clinical diagnosis, etc.)

13	Peculiarities of treatment of medical personnel with patients during radiotherapy procedures.	4	- electronic information (presentations, video materials, methodical recommendations) - innovative (casemethod)	- self-control, - use of acquired skills while working in the classroom (analysis of laboratory data, establishment of clinical diagnosis, etc.)
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14	The main tasks of all levels of medical personnel during CT, MRI and ultrasound.	4	- electronic information (presentations, video materials, methodical recommendations) - innovative (casemethod)	- self-control, - use of acquired skills while working in the classroom (analysis of laboratory data, establishment of clinical diagnosis, etc.)
Total hours		60		

3. EVALUATION CRITERIA

3.1. The evaluation of the success of education of male and female students of education is carried out on the basis of the order of the KhznMU dated August 21, 2021 No. 181 "Instructions for evaluating the educational activity of students of higher education at the Kharkiv National Medical University"

The current educational activity of students (hereinafter - PND) is monitored by the teacher of the academic group, after the students have mastered each topic of the discipline, grades are given using the 4-point (national) system. At the end of the semester, the teacher automatically receives the average grade (to the nearest hundredth) for the PND using the electronic journal of the ACS system.

For the discipline, the study of which ends in the current semester, the form of its control is the credit, the average score for the PND is converted by the teacher of the department into a 200-point scale.

The credit for the discipline is conducted by the teacher of the academic group at the last lesson in the discipline and involves taking into account the PND (Table 2) and checking the mastery of all topics in the discipline. The grade is determined in points from 120 to 200 and marked as "passed" or "failed".

Recalculation of the average grade for the current activity into a multi-point grade scale (for disciplines ending with credit)

4-point scale	200-point scale	4-point scale	200-point scale	4-point scale	200-point scale
5	200	4.22-4.23	169	3.45-3.46	138
4.97-4.99	199	4.19-4.21	168	3.42-3.44	137
4.95-4.96	198	4.17-4.18	167	3.4-3.41	136
4.92-4.94	197	4.14-4.16	166	3.37-3.39	135
4.9-4.91	196	4.12-4.13	165	3.35-3.36	134

4.87-4.89	195	4.09-4.11	164	3.32-3.34	133
4.85-4.86	194	4.07-4.08	163	3.3-3.31	132
4.82-4.84	193	4.04-4.06	162	3.27-3.29	131
4.8-4.81	192	4.02-4.03	161	3.25-3.26	130
4.77-4.79	191	3.99-4.01	160	3.22-3.24	129
4.75-4.76	190	3.97-3.98	159	3.2-3.21	128
4.72-4.74	189	3.94-3.96	158	3.17-3.19	127
4.7-4.71	188	3.92-3.93	157	3.15-3.16	126
4.67-4.69	187	3.89-3.91	156	3.12-3.14	125
4.65-4.66	186	3.87-3.88	155	3.1-3.11	124
4.62-4.64	185	3.84-3.86	154	3.07-3.09	123
4.6-4.61	184	3.82-3.83	153	3.05-3.06	122
4.57-4.59	183	3.79-3.81	152	3.02-3.04	121
4.54-4.56	182	3.77-3.78	151	3-3.01	120
4.52-4.53	181	3.74-3.76	150	Less than 3	Not enough
4.5-4.51	180	3.72-3.73	149		
4.47-4.49	179	3.7-3.71	148		
4.45-4.46	178	3.67-3.69	147		
4.42-4.44	177	3.65-3.66	146		
4.4-4.41	176	3.62-3.64	145		
4.37-4.39	175	3.6-3.61	144		
4.35-4.36	174	3.57-3.59	143		
4.32-4.34	173	3.55-3.56	142		
4.3-4.31	172	3.52-3.54	141		
4.27-4.29	171	3.5-3.51	140		
4.24-4.26	170	3.47-3.49	139		

3.2. Questions for assessment :

1. Definition disciplines and professions radiology with a nursing emphasis.
2. Functional duties of the average medical staff in radiology in modern medicine
3. History of radiology. Professional tasks of radiology. Social and medical fees related to radiology.
4. Types and properties of ionizing radiation (IR). Basics of the biological action of IR . Deterministic and stochastic effects of IR.
5. Basic types of radiological research and their application.
6. Basic principles of safety in radiology.
7. The main advantages and disadvantages of various radio diagnostic studies.
8. Means of protection when handling sources of ionizing radiation.
9. Recommendations for preparing patients for radiological examinations.
10. Radionuclide therapy and its features.
11. The main duties of a nurse when preparing patients for radionuclide therapy.
12. Basic protocols of radiotherapy procedures.
13. Safety measures that should be taken into account when working with sources of ionizing radiation.
14. Protocols of emergency response and response in case of leakage of radionuclides.
15. Features of labeling during storage and disposal of radionuclides.

16. Radiation therapy and its main goals.
17. The main stages of patient preparation for radiation therapy.
18. Possible side effects of radiation therapy.
19. The role of a nurse in patient care during a course of radiation therapy.
20. Recommendations and advice to patients to ease their general condition during treatment.
21. The role of the nurse in patient care during radiodiagnostic studies.
22. Facilitation of secondary medical personnel to improve the quality of the diagnostic process.
23. Basic functional responsibilities of secondary medical personnel during CT.
24. Basic functional responsibilities of secondary medical personnel during MRI.
25. Basic functional responsibilities of secondary medical personnel during ultrasound.
26. Ethical and deontological aspects of interaction of all sections of the medical staff.
27. Actions of secondary medical personnel during accidents at nuclear power plants.
28. Actions of secondary medical personnel during the possible use of nuclear weapons by the enemy.
29. Basic protocols for dealing with sources of ionizing radiation.

3.3. Control questions: not provided

3.4. Individual tasks of the student of education in the discipline (hereinafter referred to as IZZ) contribute to a more in-depth study of theoretical material, the formation of skills in the use of knowledge to solve relevant practical tasks.

IPPs are evaluated in points (no more than 10), which are added to the points obtained for the CIS after completing the study of the discipline or its part, when conducting a "test", "differentiated test" or "exam".

The total sum of points for the CIS and IZZ cannot exceed 120 points. For disciplines, the form of control of which is "credit", the sum of points for CIS and IZZ cannot exceed 200 points

Table 4

PPE calculation table

P/n	Scores	Activity
1	1-3	Student scientific circle
2	4-7	Students of the scientific circle of departments who participated in national student Olympiads, conferences, and creative competitions.
3	8-10	Students of the scientific circle of departments who participated in foreign student Olympiads, conferences, creative competitions.

3.5. Rules for challenging the assessment

Order No. 150 dated 06/24/2021 On approval of the new version of the Regulations on the Deduction Procedure

Regulations on the procedure for deduction, renewal and transfer of persons

In accordance with the "Regulations on the appeal of the results of the final control of students of the Kharkiv National Medical University", approved by the order of the KhnMU dated September 30, 2020 No. 252

Link:

http://www.knmu.kharkov.ua/index.php?option=com_content&view=article&id=1226%3A2013-03-25-12-07-55&catid=4%3A2011-05-04-07-20-12&Itemid=19&lang=en

4. POLICY OF DISCIPLINE

To successfully complete the relevant course, you must regularly attend practical classes; have theoretical preparation for practical classes according to the subject; not to be late or miss classes; perform all the necessary tasks and work every class; be able to work with a partner or as part of a group; contact the course curators on various issues related to the subject of classes and receive it when necessary.

Students can discuss various tasks, but their implementation is strictly individual. Copying, use of various software tools, tips, use of a mobile phone, tablet or other electronic gadgets during class for purposes unrelated to the educational process are not allowed. Students are not allowed to be late for practical classes.

Visiting departments with patients is possible provided that the students have appropriate clothing, a sanitary book with a note on vaccination against diphtheria, the results of a measles immunity test (or a vaccination note).

Students with special needs can meet with the teacher or warn him before the start of classes, the head of the group can do this at the student's request. In case of questions, it is necessary to contact the teacher.

Students are encouraged to participate in scientific research and conferences on the subject of the discipline.

All students of KHNMU are protected by the Regulation on Prevention, Prevention and Settlement of Cases Related to Sexual Harassment and Discrimination at Kharkiv National Medical University, developed with the aim of determining an effective mechanism for resolving conflict situations related to discrimination and sexual harassment (Regulation on the prevention, prevention and settlement of cases related to sexual harassment and discrimination at KhNMU http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog-sex.doc)

Kharkiv National Medical University provides education and work that is free from discrimination, sexual harassment, intimidation or exploitation. The University recognizes the importance of privacy. All persons responsible for the implementation of this policy (employees of the deans' offices, faculties, institutes and the Center for Gender Education, members of the student self-government and

ethics committee, the vice-rector for scientific and pedagogical work) maintain confidentiality regarding persons who report or who are accused in discrimination or sexual harassment (except in situations where disclosure is required by law and/or when disclosure by the University is necessary to protect the safety of others).

KhNMU creates a space of equal opportunities, free from discrimination of any national, racial or ethnic origin, sex, age, disability, religion, sexual orientation, gender or marital status. All rights, privileges, programs and activities granted to students or employees of the University are extended to all without exception, subject to proper qualifications. The anti-discrimination and anti-sexual harassment policy of KhNMU is confirmed by the Code of Corporate Ethics and the Charter of KhNMU.

Occupational Health.

At the first lesson of the course, the basic principles of labor protection will be explained by means of appropriate instruction. Everyone is expected to know where the nearest exit to the audience is, where the fire extinguisher is, how to use it, etc.

Behavior in the audience .

It is important for students to follow the rules of appropriate behavior at the university. These rules are general for everyone, they also apply to all professors and teaching staff and employees, and fundamentally do not differ from generally accepted norms.

During classes

- it is allowed:
 - leave the audience for a short time if necessary and with the teacher's permission;
 - drink soft drinks;
 - take photos of presentation slides;
 - take an active part in the course of the lesson.
- prohibited:
 - eat (with the exception of persons whose special medical condition requires otherwise - in this case, medical confirmation is required);
 - smoking, consuming alcoholic and even low-alcohol drinks or narcotic drugs;
 - speak obscenely or use words that insult the honor and dignity of colleagues and teaching staff;
 - play gambling games;
 - damage the material and technical base of the university (damage inventory, equipment, furniture, walls, floors, litter premises and territories);
 - make noise, shout or listen to loud music in the classrooms and even in the corridors during classes.

5. ACADEMIC INTEGRITY

The Department of Radiology and Radiation Medicine supports zero tolerance for plagiarism. Male and female students are expected to want to constantly increase their own awareness in academic writing. In the first classes, information activities will be held on what exactly is considered plagiarism and how to correctly conduct a research and scientific search.

More detailed information at the link: Regulations on academic integrity and ethics of academic relationships at the Kharkiv National Medical University

http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_ad_etyka_text.pdf

http://www.knmu.kharkov.ua/index.php?option=com_content&view=article&id=2520%3A2015-04-30-08-10-46&catid=20%3A2011-05-17-09-30-17&Itemid=40&lang=en

http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/kodex_AD.docx

6. Recommended Books

Basic

1. Радіологія: підручник / С.Ю. Кравчук: Всеукраїнське спеціалізоване видавництво «Медицина»:2019, -296с.
2. Протоколи рентгенологічних досліджень (зразки)/М.І. Прокопчук: ГАЛИЧ-ПРЕС, 2021, -397 с.
3. Рентгенологічні укладки. Атлас/"Трек ЛТД":М.І. Прокопчук, 2021, -245 с.
4. Методи променевої діагностики : навч. посіб. для студ. / уклад. Н. В. Туманська, О. Г. Нордіо, Т. М. Кічангіна. – Запоріжжя : [ЗДМУ], 2018. – 143 с.
5. Променева діагностика: [В 4 т.] / За ред. Г.Ю. Коваль.— Т.2. К.: Медицина України, 2020.- 768 с.
6. Радіологія. Променева терапія. Променева діагностика · Автор: Ковальський О. В.: Нова книга, Україна, 2017.- 512с.
7. Постанова Кабінету Міністрів України від 15 лютого 2021 року №133 «Деякі питання реалізації програми державних гарантій медичного обслуговування населення у II-IV кварталах 2021 року»

7. Information resources

Link to the subject page in MOODLE

<https://distance.knmu.edu.ua/?redirect=035>

8. OTHER

Useful links:

Provisions on the prevention, warning and settlement of cases related to sexual harassment and discrimination at KhNMU

http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog-sex.doc

Regulations on academic integrity and ethics of academic relations at the Kharkiv National Medical University

http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_ad_etyka_t ext.pdf

The procedure for conducting classes on in-depth study by students of the Kharkiv National Medical University of individual disciplines beyond the scope of the curriculum

http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/nak-poriad-pogl-vyv-dysc.docx

Regulations on the Commission on Academic Integrity, Ethics and Conflict Management of KhNMU

http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_komis_ad_t ext.pdf

Regulations on recognition of the results of non-formal education at the Kharkiv National Medical University

http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_neform_os v.pdf

INCLUSIVE EDUCATION:

http://www.knmu.kharkov.ua/index.php?option=com_content&view=article&id=7108%3A2021-03-10-14-08-02&catid=12%3A2011-05-10-07-16-32&Itemid=33&lang=en

ACADEMIC HONESTY:

http://www.knmu.kharkov.ua/index.php?option=com_content&view=article&id=2520%3A2015-04-30-08-10-46&catid=20%3A2011-05-17-09-30-17&Itemid=40&lang=en

http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/kodex_AD.docx