PRIVATE HIGHER EDUCATIONAL INSTITUTION
"INTERNATIONAL ACADEMY OF ECOLOGY AND MEDICINE"
Department of Social Medicine and Preventive Medicine

SYLLABUS
EDUCATIONAL DISCIPLINE

"Radiology"

LEVEL OF HIGHER EDUCATION Second (master's) level

DEGREE OF HIGHER EDUCATION Master

FIELD OF KNOWLEDGE 22 Healthcare

SPECIALTY 221 Dentistry

Considered and approved
at a meeting of the Department of Internal
Medicine with a course in endocrinology Doctor of
Medical Sciences, Postrelko Valentin
Protocol № 1 from "09" IX 2020

Kyiv 2020

1. general information

Subjects	Radiology
Teacher (s)	Candidate of Medicine Science Mazur Anastasiya
Teacher's contact phone number	**+380 066 384 33 92**
Teacher's e-mail	maemendocrinology@gmail.com anastasiya.mazur@gmail.com
Discipline format	Normative discipline
The scope of discipline	90
Link to the distance learning site	
Consultations	Not on the program

2. Discipline abstract

The subject of study discipline is the modern radiation methods of research and radiation signs of diseases of various organs and systems and basic methods of radiation therapy.
Pre-requisites and postparts of the course: Mainting discipline "Radiology" is based on studying students of medical biology, parasitology and genetics; medical and biological physics; biological chemistry; bioorganic chemistry; bioorganic chemistry; human anatomy; Normal physiology and integrates with these disciplines, relies on knowledge of pathomorphology and pathological physiology that students receive in parallel with the study of the course of radiology. All this lays the foundations for studying students of propaedeutics of internal diseases with care of patients; general surgery with anesthetic and care for patients; Propedeutics of children's illness with child care, which involves the integration of teaching with these disciplines and the formation of skills to apply knowledge from radiology in the process of further education and professional activities

3. The purpose and objectives of the discipline

The purpose of studying the discipline "Radiology":

The purpose of the discipline is the training of future dentist doctors to the diagnostic capabilities of radiation methods with the definition of radiation semiotics of diseases; Training bases of radiation therapy, taking into account the indications and contraindications.

The objectives of styding the discipline "Radiology ":

• teach students to elect from existing radiological methods of examination of the optimal method of radiation research to identify functional-morphological changes in the pathology of various organs and systems;
• to teach analyzing the radiological semiotics of functional and morphological changes in the pathology of various organs and systems;
• Train the optimal method of radiation therapy for the treatment of tumor and non-tumor diseases.

4. Learning outcomes (competencies)

As a result of studying the discipline "Radiology"

KNOW:

- ability to abstract thinking, analysis and synthesis.
- knowledge and understanding of the subject area and understanding of professional activity.
- the ability to apply knowledge in practical activity.
- the ability to communicate in the state language both orally and in writing.
- Ability to communicate in English.
- skills of using information communication technologies.
- ability to search, process and analyze information from different sources.
- Ability to adapt and action in a new situation.
- Ability to detect, put and solve problems.
- the ability to be critical and self-critical.
- ability to work in a team.
- desire to preserve the environment.
- The ability to act socially responsibly and consciously.
- the ability to realize its rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, rule of law, human rights and freedoms and citizen in Ukraine.
- the ability to maintain and multiply moral, cultural, scientific values and achievements of society on the basis of understanding the history and laws of development of the subject area, its place in the general system of knowledge about nature and society and development of society, technology and technology, use different types and forms of motor activity for active recreation and healthy lifestyle.

BE ABLE TO:

As a result of studying the discipline, the student must evaluate information on the diagnosis in the health care institution, its subdivision, using knowledge of a person, its bodies and systems, be able to identify and fix a leading radiation symptom or syndrome based on the results of radiation research, be able to establish the most likely or syndromic diagnosis by matching with standards using preliminary data of the patient anamnesis and patient review data by adhering to relevant ethical and legal norms. Appoint an effective method of radiation treatment, taking into account the results of radiation and laboratory studies.

5. Organization of the study of the discipline

The volume of the course

Type of lesson	*Total number of hours*	*90*
Lectures		10
Seminars		30

Independent work			50
Signs of the course			
Semester	Specialty	Course (year of study)	Normative / selective
5-6	221 Dentistry	3	Normative

Course topics

Theme, plan	Form of employment	literature	Tasks, hours	Estimation weight	Deadline
Topic 1. Diabetes. Etiology, pathogenesis, classification, diagnostics, complications. Principles of treatment. Changes to the tooth-maxillary system and manifestations on mucous membranes. The role of a dentist doctor in prevention and early diagnosis.	Lecture	Basic, auxiliary - in accordance with paragraph 8	2 hours	2	According to the schedule
Topic 2. Diseases of thyroid and pinching glands. Etiology, pathogenesis, clinic, diagnostics, complications, principles of treatment. The role of a doctors in prevention and early diagnosis.	Lecture	Basic, auxiliary - in accordance with paragraph 8	2 hours	2	According to the schedule
Topic 3. Diabetes. Modern classification. Etiology, pathogenesis, clinic. National Program "Sugar Diabetes".	Lecture	Basic, auxiliary - in accordance with paragraph 8	2 hours	2.25	According to the schedule
Topic 4. Physical and technical bases of radiation diagnostics in dentistry.	practical	Basic, auxiliary - in accordance with paragraph 8	3 hours	2.5	According to the schedule
Topic 5. Conical ray computer tomography in diagnostics. diseases of the jaw-facial area. Dental Subtraction CT in dental practice.	practical	Basic, auxiliary - in accordance with paragraph 8	3 hours	2.5	According to the schedule
Topic 6. Anomalies and variants of the development of the jaw-facing region	practical	Basic, auxiliary - in accordance with paragraph 8	3 hours	2.5	According to the schedule
Topic 7. Biological action of ionizing radiation. Radioactivity and dose. Dosimetry of ionizing radiation. Principles and methods of radiation therapy in dentistry.	practical	Basic, auxiliary - in accordance with paragraph 8	3 hours	2.5	According to the schedule
Topic 8. The main properties of ionizing radiation. Features of the array of X-ray and radiological departments, OSU, NRBU	practical	Basic, auxiliary - in accordance with paragraph 8	3 hours	2.5	According to the schedule

Topic 9. Physical and technical bases of X-ray examination.	practical	Basic, auxiliary - in accordance with paragraph 8	3 hours	2.5	According to the schedule
Topic 10. Radiation methods of research and radiation anatomy of the jaw-facing region.	practical	Basic, auxiliary - in accordance with paragraph 8	3 hours	2.5	According to the schedule
Topic 11. Conical ray computer tomography in dentistry.	practical	Basic, auxiliary - in accordance with paragraph 8	3 hours	2.5	According to the schedule
Topic 12. Dental subtraction of CT in dental practice.	practical	Basic, auxiliary - in accordance with paragraph 8	3 hours	2.5	According to the schedule
Topic 13. Anomalies and variants of the development of the jaw-facial region.	practical	Basic, auxiliary - in accordance with paragraph 8	3 hours	2.5	According to the schedule
Topic 14. Radiation semiotics of diseases of teeth and jaws.	practical	Basic, auxiliary - in accordance with paragraph 8	2 hours	2.5	According to the schedule
Topic 15. Radiation signs of tumor damage to the jaw-facial area.	practical	Basic, auxiliary - in accordance with paragraph 8	2 hours	2.5	According to the schedule
Independent work	independent	Basic, auxiliary - in accordance with paragraph 8	50 hours	50	According to the schedule

6. Course evaluation system

General course evaluation system

Current control is based on the control of theoretical knowledge, skills and abilities in practical classes. The student's independent work is assessed in practical classes and is part of the final assessment of the student. Current control is carried out during classes and aims to verify the assimilation of students' learning material. Forms of current control are:

a) test tasks with the choice of one correct answer, with the definition of the correct sequence of actions, with the definition of compliance;

b) individual oral examination, interview;

c) solving typical situational problems;

d) control of practical skills;

e) solving typical tasks of diagnosis, medical care, medical evacuation, treatment and prevention.

Grades in the national scale ("excellent" - 5, "good" - 4, "satisfactory" - 3, "unsatisfactory" - 2), received by students, are displayed in the journals of attendance and academic group performance.

Final control of learning success is carried out in the form of diff. credit (oral and test tasks).

The maximum number of points that a student can score for current educational activities for admission to the PC is 120 points.

The minimum number of points that a student must score for the current academic activity for admission to the exam is 72 points. The calculation of the number of points is based on the grades obtained by the student on the traditional (national) scale during the study of the discipline during the semester, by calculating the arithmetic mean (CA), rounded to two decimal places.

Assessment of students' independent work. Students' independent work, which is provided by the topic of the lesson along with the classroom work, is assessed during the current control of the topic in the relevant lesson. Assimilation of topics that are submitted only for independent work is checked during the final module control.

Table 1. Conversion of the average grade for current activities in a multi-point scale (for disciplines that end with an exam (differentiated credit))

4-point scale	120-point scale	4-point scale	120-point scale	4-point scale	120-point scale	4-6point scale	120-point scale
5	120	4,45	107	3,91	94	3,37	81
4,95	119	4,41	106	3,87	93	3,33	80
4,91	118	4,37	105	3,83	92	3,29	79
4,87	117	4,33	104	3,79	91	3,25	78
4,83	116	4,29	103	3,74	90	3,2	77
4,79	115	4,25	102	3,7	89	3,16	76
4,75	114	4,2	101	3,66	88	3,12	75
4,7	113	4,16	100	3,62	87	3,08	74

4,66	112	4,12	99	3,58	86	3,04	73
4,62	111	4,08	98	3,54	85	3	72
4,58	110	4,04	97	3,49	84	Less 3	Not enough
4,54	109	3,99	96	3,45	83		
4,5	108	3,95	95	3,41	82		

The maximum number of points that a student can score during the final control of the student's acquisition of knowledge is 80 points.

Table 2. Scale of assessment of differentiated (exam) credit:

National scale	Score scale
«5»	**70-80**
«4»	**60-69**
«3»	**50-59**

Assessment of the final control is considered credited if the student scored at least 60% of the maximum amount of points (for a 200-point scale - at least 50 points).

The final number of points that the student scored in the discipline is defined as the sum of points for the current educational activity (Table 1) and for the final control (differentiated credit) (Table 2).

Requirements for final test control	The final test control is credited to the student if he demonstrates the possession of practical skills and scored at least 50 points in the test control of theoretical training. The maximum number of points for the final control of the student (differential test) - 80 points. Criteria for assessing students for final control are carried out according to the scheme: "2" - 0-49 points; "3" - 50-60 points; "4" - 61-70 points "5" - 71 - 80 points Assessment of the final test task is carried out by dividing the maximum score of the final control - 80 - by the number of test questions in the variant and multiplied by the number of correct test answers of the student.
Practical training	Module 1

Classroom work (Content module 1)	
T 1-15	Amount - 200 (The maximum number of points that a student can score for the current educational activity, the minimum is 120 points).
Control work	0
Test	20
Working in pairs	30
Abstract	*50*

Conditions of admission to the final control

Semester control is provided in the form of credit. Provides a final grade on a 200-point scale as the sum of grades for the current control of knowledge (oral examination, tests, examination of abstracts), the results of the content module.

7. The policy of studying the discipline

The organization of the educational process is carried out with the use of the European Credit Transfer System (ECTS) to assess student performance. The points gained in the current survey, independent work and points of the final control are credited. This must take into account the student's presence in class and his activity during practical work. Inadmissible: absences and late classes; use of a mobile phone, tablet or other mobile devices during the lesson (except for the cases provided by the curriculum and methodical recommendations of the teacher); copying and plagiarism; untimely performance of the task, the presence of unsatisfactory assessments and more submitted theoretical and practical material.

8. Recommended literature

Basza:	1. Radiology (radiation diagnostics and radiation therapy). Test tasks. Part 1. Kyiv, book plus. 2015. -104 p. 2. Radiology (radiation diagnostics and radiation therapy). Test tasks. Part 2. Kiev, book plus. 2015. -168 p. 3. Radiology (radiation diagnostics and radiation therapy). Test tasks. Part 3. Kyiv, book plus. 2015. -248 p. 4. N.A. Rabukhin, AP Argantsev. X-ray diagnostics in dentistry. 000 "Medical Information Agency", 1999-452 p., Ill. 5. Radiology. Tutorial for students Statistics of Faculty of VMNZ. / Kamenetsky M.S., Pervak MB, Mechev D.S. etc. - Donetsk, view. "Noulage", 2013. - 260 s. ISBN 978-617-579-739-6.
Auxiliary:	1. Radiation medicine: a tutorial for medical universities 3-4r.Ak, approved by MON \ ed. MI Pilipenko. K., 2013. 232 p. 2. Radiation Medicina = Radiation medicine Textbook for medical universities 3-4r.Ak, approved by MON \ ed. MI Pilipenko. K., 2013. 232s. 3. Radiology. Radiation therapy. Radiation diagnostics. Textbook for VMNZ by ed. Kovalsky O.V .. View "New Book". 512 p. 4. Radiology. RadioTherapy. Diagnostic Imaging = Radiology. Radiation therapy. Radiation diagnostics. View 2. Textbook for VMNZ by ed. Kovalsky O.V .. View "New Book". 512 p. 5. Linderbraten L.D., Korolyuk I.P. Medicine radioology. Moscow: "Medicine", 2000. 640 p.

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