№ЛД-16-ИН

Federal State Budgetary Educational Institution
higher education
"NORTH OSSETIAN STATE MEDICAL ACADEMY"
Ministry of Health of the Russian Federation

Department Radiation Diagnostics with Radiotherapy, and Oncology

Annotation of the work program of the discipline

" Radiation diagnostics "

Speciality 31.05.01 GENERAL MEDICINE (specialty)

Form of education full-time

(full-time, part-time (evening), correspondence)

the period of development of
the Main Professional Educational
Program of Higher Education 6 years

(standard term of training)

In developing an educational training program, the discipline is based on:

1. Federal State Educational Standard of Higher Education on specialty 31.05.01 General Medicine, approved by the Ministry of Education and Science of the Russian Federation on February 9, 2016 №95

2. Academic plan on specialty 31.05.01 General Medicine, approved by the Academic Council of the Federal State Budgetary Educational Institution of Higher Education SOGMA of the Ministry of Health of Russia on May 24, 2023, Protocol No. 8

The work program of the discipline was approved at a meeting of the Department of Radiation Diagnostics and Radiation Therapy with Oncology on May 21, 2023, Protocol No. 10.

The work program of the discipline was approved at a meeting of the central coordinating educational and methodological council on May 23, 2023, Protocol No. 5.

The work program of the discipline was approved by the Academic Council of the Federal State Budgetary Educational Institution of Higher Education SOGMA of the Ministry of Health of Russia on May 24, 2023, Protocol No. 8

The complexity of the discipline: 2 credits (72 hours) 6-semestr

The purpose and objectives of the discipline:
The purpose of mastering the discipline is to participate in the formation of general professional

(GPC-9) and professional (PC-1,5,6,7,21) competences in the field of radiation diagnostics. In the course of achieving the goal, the following tasks are solved: the student must
know:

- The theory and practice of using radiation research methods for the diagnosis of diseases of organs and body systems;
- The structure of the radiology service, the organization of the department of radiology;
- diagnostic capabilities of various methods of radiation diagnosis;
- indications and contraindications to the various methods of radiation diagnosis;

be able to:
- to prepare patients for radiological diagnostic studies;
- determine the radiation signs of the main diseases and pathological conditions encountered in the work of the general practitioner;

master:
- the skill of conducting radiation studies to meet the requirements of safety engineering;
- skills of using individual and collective measures of personnel protection.

Requirements for the results of mastering the discipline "Radiation diagnostics"

code 31.05.01 - medical treatment:

The study of the discipline is aimed at obtaining the following professional competencies (PC) by students:

№	Competence code	Contents of the competence (or of its parts)
1.	**(GPC-9)**;	ability to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems
2.	**(PC-1);**	ability to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems
3.	**(PC-5)**;	readiness to collect and analyze patient complaints, data of his anamnesis, examination results, laboratory, instrumental, pathological and anatomical and other studies to recognize the condition or establishing the fact of the presence or absence of the disease
4.	**(PC-6);**	- ability to determine the patients in the main pathological conditions, symptoms, syndromes of diseases, nosological forms in accordance with International Statistical Classification of Diseases and Related Problems health, revision adopted by the 43rd World Health Assembly, Geneva, 1989.
5.	**(PC-7)**;	willingness to conduct an examination of temporary disability, participation in the conduct of medical and social expertise, ascertaining the biological death of a person.
6.	**(PC-21);**	ability to participate in carrying scientific research.

As a result of studying the discipline, the student must
know:
1) the principle of obtaining images with radiation diagnostic methods: x-ray, ultrasonic, radionuclide, magnetic resonance;
2) biological basis, effects on the human body, ionizing and non-ionizing radiation;
3) diagnostic capabilities of various methods of radiation diagnosis;
4) main radiation signs:
- traumatic injuries of bones and joints;

- osteomyelitis, tuberculosis, benign and malignant bone tumors,
- degenerative-dystrophic diseases of the osteo-articular system;
- diseases of the lungs and mediastinal organs;
- diseases of the digestive system;
- diseases of the liver and gallbladder;
- diseases of the kidneys and urinary tract;

be able to:
1) to determine the feasibility, type and sequence of application of the methods of radiation diagnostics. Identify the type of radiation study;
2) to establish contraindications to the use of methods of radiation diagnosis;
3) make recommendations for preparing for the radiation survey;
4) to identify pathological changes in human organs by the results of radiation examinations (tomograms, radiographs, etc.);
5) analyze the results of radiation diagnosis using the protocol of radiation examination or consultation of a radiology specialist;
6) determine the radiation signs of "emergency conditions" (intestinal obstruction, free gas in the abdominal cavity, pneumohydrothorax, traumatic bone injuries and joints, gallstone disease, urolithiasis);
7) to solve deontological issues related to the conduct of radiation diagnosis;

master:
1) methods of human radiation anatomy;
2) methods for determining indications and contraindications to radiation diagnostic research;
3) methods of independent work with educational, scientific and regulatory reference literature, as well as with medical sites on the Internet.

4. 4. Brief characteristics of the discipline
Topic 1. Introduction. General questions of radiology ..
Topic 2. Radiological diagnosis in neurology
Topic 3: Radiation syndromes of lung damage.
Topic 4: Radiological diagnosis of the heart and large vessels.
Topic 5 Osteo-articular system in the radial image in children.
Topic 6 Methods of radiological diagnosis of diseases of the esophagus, stomach, intestines
Theme 7 Comprehensive radiological diagnosis of diseases of the hepato-pancreatobobiliary system.
Subject 8: Comprehensive ray examination of the kidneys and urinary tract
Topic 9 Mammography. Radiological diagnosis of genital organs.
Topic 10: Radiology at otorhinolaryngology,
endocrine system
Topic 11. The final lesson.
Types of educational work: lectures, practical classes, medical history, protocol radiation research, abstract, preparation for classes, preparation for routine control, preparation for intermediate control.

Used information, tool and software:
- Multimedia complex (laptop, projector, screen),
- Demonstration of radiation images is carried out in electronic form and in film version on negatoskop.
- All lectures and practical exercises are presented in electronic form.

- Used sets of hard copies of radiographs, scintigrams, computer tomograms, magnetic resonance tomograms in all sections and topics of the discipline.
- In all sections there are test tasks, situational tasks, test questions, tasks for independent work, self-training, homework.
- As a visual material used dummies of the chest cavity,
liver, pelvic organs, sets of radiopaque agents.
- Forms of ongoing monitoring of progress: testing written, interview on situational tasks, individual homework abstract.

Associate Professor of the Department, Ph.D.  Koraeva I.Kh.