

**Annotation of the work program of the discipline
"Oncology, radiation therapy"**

The main professional educational program of higher education is a specialist's program in specialty 31.05.01 General Medicine, approved on 24/05/2025.

Full-time form of education

Term of development of OPOP VO: 6 years

Department: Radiation Diagnostics and Radiation Therapy with Oncology

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 purpose of the discipline: is discipline development is participation in the formation of general professional (OPK-1, GPC -4, GPC-6, GPC-8,) and professional (PC-1, PC-2, PC-5, PC-6, PC-8, PC- 16, PC-17) competencies in the field of knowledge in radiation therapy.

1. In the course of achieving the goal, the following tasks are solved :
the student must have a holistic view of radiation therapy as an independent scientific and practical discipline.

It is necessary to form a basic worldview among students, which includes:

- familiarization of students with the main provisions of radiation therapy;
- familiarization with the peculiarities of the organization of oncological care for the population of Russia;
- study of the main methods of radiation therapy;
- Familiarization with modern principles of radiation therapy.

In the course of achieving the goal, the following tasks are solved :

- training in the course of radiation therapy are: determination of indications and contraindications to radiation diagnostics, knowledge of the advantages of radiation diagnostic methods, rational choice of radiation therapy methods.

To study the discipline of radiation diagnostics, knowledge of physics, normal and pathological anatomy, normal and pathological physiology is necessary, propaedeutics of internal diseases, general and private surgery, methods of radiation diagnostics, the assimilation of which by students is necessary for the correct assessment structural and functional changes in organs and systems on the obtained medical images, the correct choice of the method of radiation therapy.

2. The place of discipline in the structure of the OPOP VO:

The discipline refers to the disciplines of the basic part of block 1 of the Federal State Educational Standard of Higher Education in the specialty " **General Medicine** ".

3. Requirements for the results of mastering the discipline:

The teaching of this discipline is based on the following types of professional activity:

- prophylactic.
- diagnostic.
- research.
- organizational and managerial;
- research.

The process of studying the discipline is aimed at the formation and development of competencies:

No. p / p	Competency code	The content of the competence (or part of it)
1	OPK-1	willingness to solve standard tasks of professional activity using information, bibliographic resources, biomedical terminology, information and communication technologies and taking into account the basic requirements of information security.
2.	OPK-4	ability and willingness to implement ethical and deontological principles in professional activities
	OPK-6	willingness to maintain medical records.
3.	OPK-8	readiness to use the basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems (OPK-7); readiness for the medical use of drugs and other substances and their combinations in solving professional problems

4	PC-1	the ability and readiness to implement a set of measures aimed at maintaining and strengthening health and including the formation of a healthy lifestyle, prevention of the occurrence and (or) spread of diseases, their early diagnosis, identification of the causes and conditions for their occurrence and development, as well as aimed at eliminating harmful effects on human health of environmental factors.
5.	PC-2	the ability and readiness to conduct preventive medical examinations, medical examinations and dispensary observation.
6.	PC-5	readiness to collect and analyze the patient's complaints, his medical history, examination results, laboratory, instrumental, patho-anatomical and other studies in order to recognize the condition or establish the presence or absence of the disease. .
7.	PC-6	the ability to determine in patients the main pathological conditions, symptoms, syndromes of dental diseases, nosological forms in accordance with the International Statistical Classification of Diseases and Problems Associated with health, X revision.
8.	PC-8	the ability to determine the tactics of managing patients with various nosological forms.
9.	PC-16	the ability to determine the tactics of managing patients with various nosological forms.
10	PC-17	The ability to apply the basic principles of organization and management in the field of protecting the health of citizens, in copper and their structural subdivisions.

As a result of studying the discipline, the student must

know:

- Properties of sources of ionizing radiation. Dosimetry and its role in pre- radiation preparation;
- Determine tactics and appropriate sequence of application radiation studies for the most common diseases;
- Know the basic principles of radiation therapy of tumors, indications and contraindications for its implementation, the physical basis of the method of radiation therapy;

- Modern methods of radiation treatment of malignant neoplasms and non-tumor diseases;
- Radiation reactions and damage during radiation therapy. Prevention and treatment;
- Deontological aspects in radiology.

be able to:

- Based on the anamnesis and clinical picture of the disease, determine the indications and contraindications to radiation treatment;
- Issue a referral to a radiation therapist and prepare the patient leg to radiation research or treatment;
- Together with the radiation therapist, draw up a plan for the course radiation treatment of the patient;
- Conduct psychological preparation of the patient for X-ray procedures;
- When consulting a radiation therapist, correctly assess the clinical condition - patient and the results of radiation therapy.

own:

- the skill of conducting radiation therapy, taking into account safety requirements;
- skills in the use of individual and collective personnel protection measures.

4. The total labor intensity of the discipline: is 3 credit units (108 hours).

5. Semester: 9

6. The main sections of the discipline:

Topic 1. Organization of oncological care for the population.

Topic 2. Cancer and precancerous diseases of the skin. Cancer of the oral mucosa. Tumors of bones and soft tissues.

Theme 3 Precancerous diseases and breast cancer.

Theme 4 Precancerous diseases and lung cancer.

Topic 5 Cancer of the esophagus, cancer of the stomach. malignant lymphomas.

Myeloma .

Topic 6 Cancer of the colon and rectum. Tumors of the hepatopancreatoduodenal zone.

Topic 7. Physical basis of radiation therapy. Radiobiological bases of radiation therapy of malignant and non-tumor diseases.

Topic 8. Methods of radiation therapy. Technical support of radiation therapy.

Topic 9. Radiation therapy planning. Prebeam period. Beam period. Reactions of the body to therapeutic radiation exposure. Post-beam period. Radiation protection of organs and tissues during radiation therapy.

Topic 10. Fundamentals of radiation therapy of malignant tumors of the maxillofacial region.

Topic 11. Fundamentals of radiotherapy of malignant tumors of the thoracic and abdominal cavities.

Topic 12. Fundamentals of radiation therapy of malignant tumors of the central nervous system , thyroid gland,

Retroperitoneal space, skeletal system .

Topic 13. Modular lesson, test

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