MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION, MINISTRY OF SCIENCE, HIGHER EDUCATION AND INNOVATIONS

Kyrgyz-Russian Slavic University

named after the first President of the Russian Federation B.N. Yeltsin

APPROVED

by the Dean of the Faculty

2025

Oncology, radiation therapy

work program of the discipline (module)

Assigned to the: **Oncology and radiation diagnostics and therapy**

Syllabus: Specialty 560001 - KR General Medicine (for international students)

Qualification: **Specialist**

Form of study: **full-time**

Total labor intensity: **3 ZET**

Hours according to the: 108

including:

classroom activities: 64

independent work: 43.7

Types of control in semesters:

pass with a grade of 11

Distribution of course hours by semester

Semester (<Course>.<Semester in the course>)	11 (6.1)		Total	
Weeks	18			
Type of activity	UP	RP	UP	RP
Lectures	16	16	16	16
Practical	48	48	48	48
Contact work during theoretical training	0.3	0.3	0.3	0.3
Including int.	4	4	4	4
Total auditorium	64	64	64	64
Contact work	64.3	64.3	64.3	64.3
The work itself	43.7	43.7	43.7	43.7
Total	108	108	108	108

The program was compiled by:

Doctor of Medical Sciences, Professor, Makieva K. B. _____;
Teacher, Emilova S.E. _____;
Teacher, Zholdoshbekova N. Zh. _____.

Reviewer(s):

Doctor of Medical Sciences, Professor, Bebezov B. Kh. _____;
Doctor of Medical Sciences, Professor, Satylganov I. Zh. _____.

The working program of the discipline

is developed in accordance with the Federal State Educational Standard
Federal State Educational Standard of higher education in the specialty 31.05.01 MEDICALSCIENCE (Order No. 95 of the Ministry of Education and Science of the Russian Federation dated 09.02.2016)

is compiled on the basis of the curriculum:

Specialty 31.05.01. - RF, 560001-KR Medical business
(for international students)
approved by the academic council of the university from 30 June 2025 protocol no. 13 _

The working program was approved at the meeting of the department

Minutes No.1

Of 01.09.2025 Duration of the program: 2020-2026 academic year

Head of the Department Makimbetov E. K.

Approval of the RPD for implementation in the next academic year

Chairman of the UMS

__ _____ 2026

The work program was reviewed, discussed and approved for
execution in the 2026-2027 academic year at a department meeting

Protocol dated __ _____ 2026 No. __
Head of the Department, Doctor of Medical Sciences, Professor E.K. Makimbetov

Approval of the RPD for implementation in the next academic year

Chairman of the UMS

__ _____ 2027

The work program was reviewed, discussed and approved for
execution in the 2027-2028 academic year at a department meeting

Protocol dated __ _____ 2027 No. __
Head of the Department, Doctor of Medical Sciences, Professor E.K. Makimbetov

Approval of the RPD for implementation in the next academic year

Chairman of the UMS

__ _____ 2028

The work program was reviewed, discussed and approved for
execution in the 2028-2029 academic year at a department meeting

Protocol dated __ _____ 2028 No. __
Head of the Department, Doctor of Medical Sciences, Professor E.K. Makimbetov

Approval of the RPD for implementation in the next academic year

Chairman of the UMS

__ _____ 2029

The work program was reviewed, discussed and approved for
execution in the 2029-2030 academic year at a department meeting

Protocol dated __ _____ 2029 No. __
Head of the Department, Doctor of Medical Sciences, Professor E.K. Makimbetov

1. OBJECTIVES OF LEARNING THE DISCIPLINE	
1.1	The overall goal of oncology education is to develop general medical knowledge and instill the fundamentals of cancer diagnosis and treatment methods. At the same time, attention must be paid to issues of prevention and early detection of the most common forms of tumors, such as lung cancer, stomach cancer, breast cancer, and others.
1.2	The program is designed in such a way that students gain a comprehensive understanding of oncology and have the opportunity to conduct differential diagnostics with other diseases.

2. PLACE OF DISCIPLINE IN THE STRUCTURE OF THE OOP	
OOP cycle (section):	B1.B
2.1	**Requirements for preliminary preparation of the student:**
2.1.1	Anatomy
2.1.2	Pathological anatomy
2.1.3	Histology, embryology, cytology
2.1.4	Pharmacology
2.1.5	Pathophysiology, clinical pathophysiology
2.1.6	Infectious diseases
2.1.7	Obstetrics and gynecology
2.1.8	Traumatology, orthopedics
2.1.9	Otorhinolaryngology
2.1.10	General surgery
2.1.11	Propaedeutics of internal diseases
2.1.12	Microbiology, virology
2.1.13	Hospital therapy
2.1.14	Pediatric surgery
2.1.15	Hospital surgery
2.1.16	Outpatient therapy
2.1.17	Psychotherapy
2.1.18	Ophthalmology
2.1.19	Psychiatry, medical psychology
2.1.20	Clinical biochemistry
2.1.21	Clinical pharmacology
2.1.22	Clinical Practice (Physician Assistant)
2.1.23	Neurology, medical genetics, neurosurgery
2.1.24	Public health and healthcare, health economics
2.1.25	Occupational diseases
2.1.26	Urology
2.1.27	Faculty therapy
2.1.28	Faculty surgery
2.1.29	Endocrinology
2.1.30	Epidemiology
2.1.31	Radiation diagnostics
2.1.32	Basics of emergency care
2.1.33	Industrial practice to acquire professional skills and experience in professional activities (Assistant to a procedural nurse)
2.1.34	Topographic anatomy and operative surgery
2.1.35	Bioethics
2.1.36	Biochemistry
2.1.37	Normal physiology
2.1.38	Immunology
2.1.39	Biology
2.1.40	History of medicine
2.1.41	Latin

2.2	**Disciplines and practices for which mastering this discipline (module) is necessary as a prerequisite:**
2.2.1	Psychotherapy
2.2.2	Dermatovenereology
2.2.3	Phthisiology
2.2.4	Traumatology, orthopedics
2.2.5	Hospital therapy
2.2.6	Outpatient therapy

3. STUDENT COMPETENCIES DEVELOPED AS A RESULT OF LEARNING THE DISCIPLINE (MODULE)	
PC-9: readiness to manage and treat patients with various nosological forms in outpatient and day hospital settings	
Know:	
Level 1	etiology, pathogenesis, clinical picture of the main diseases with various nosological forms;
Level 2	the main types and methods of treatment of patients with various nosological forms;
Level 3	methods of management and treatment of patients with various nosological forms in outpatient and day hospital settings.
Be able to:	
Level 1	correctly identify this disease;
Level 2	to compare different types and methods of treatment of patients with different nosological forms, to develop a treatment plan for diseases;
Level 3	manage and treat patients in outpatient and day hospital settings.
Own:	
Level 1	skills in analyzing various types of treatment for patients with various nosological forms;
Level 2	methods of searching for and comparing different methods of treating patients with different nosological forms;
Level 3	skills in managing and treating patients with various diseases in outpatient and day hospital settings.

PC-8: the ability to determine the tactics of managing patients with various nosological forms	
Know:	
Level 1	etiology, pathogenesis, clinical presentation of diseases;
Level 2	the main types and methods of treatment of patients with various nosological forms;
Level 3	main directions and problems in the management of patients with various diseases.
Be able to:	
Level 1	to reveal the meaning of determining the tactics of treating patients with various diseases;
Level 2	to compare different types and methods of treatment of patients with different nosological forms, to develop a treatment plan for diseases;
Level 3	To highlight the practical value of individualized tactics for managing patients with various nosological entities requiring emergency medical care.
Own:	
Level 1	skills in presenting and analyzing the etiology and pathogenesis of various clinical diseases to make a diagnosis;
Level 2	methods of searching for and comparing different methods of treating patients with different nosological forms;
Level 3	possess the skills to determine the tactics for managing patients with diseases.

PC-6: the ability to determine the patient's main pathological conditions, symptoms, disease syndromes, and nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, 10th revision	
Know:	
Level 1	research methods to identify the main pathological conditions, symptoms, disease syndromes, and nosological forms;
Level 2	the specifics of identifying various types of pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the ICD X revision;
Level 3	the main syndromes of damage to organs and systems and their specificity in the differential diagnosis of various nosological forms in accordance with the ICD X revision
Be able to:	
Level 1	to understand the obtained results of the study of the main nosological forms of diseases;

Level 2	analyze various types of pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the ICD;
Level 3	to note the practical value in comparing specific pathological syndromes and disease symptoms.
Own:	
Level 1	skills to identify the main pathological conditions, symptoms, and disease syndromes;
Level 2	methods of searching, identifying and systematizing the main pathological conditions, symptoms of disease syndromes, nosological forms in accordance with the ICD X revision;
Level 3	skills of self-justification of the combination of various symptoms and syndromes into nosological forms in accordance with (ICD X revision).

PC-5: readiness to collect and analyze patient complaints, anamnesis data, examination results, laboratory, instrumental, pathological and other studies in order to recognize the condition or establish the presence or absence of a disease	
Know:	
Level 1	methods and means of collecting and analyzing patient complaints, data from his anamnesis, indications and contraindications for additional clinical and paraclinical research methods;
Level 2	the need to collect and analyze patient complaints and his anamnesis data;
Level 3	Indications and contraindications for additional clinical and paraclinical research methods.
Be able to:	
Level 1	collect and analyze patient complaints and medical history data;
Level 2	prescribe laboratory, instrumental, pathological and other studies in order to recognize the condition or establish the presence or absence of a disease;
Level 3	use methods and means of medical examination and diagnostic measures.
Own:	
Level 1	skills in collecting and analyzing patient complaints, data from his anamnesis, interpreting the results of the most common methods of functional diagnostics used to identify pathologies of the blood, heart and blood vessels, lungs, kidneys, liver and other organs and systems;
Level 2	skills in drawing up a medical history, skills in prescribing the necessary laboratory and instrumental examination methods in order to recognize a condition or establish the presence or absence of a disease;
Level 3	skills in constructing a clinical diagnosis.

As a result of mastering the discipline, the student must

3.1	**Know:**
3.1.1	maintaining approved forms of accounting and reporting documentation, epidemiology of oncological diseases;
3.1.2	clinical manifestations of all tumor diseases, examination methods that allow them to be diagnosed or excluded;
3.1.3	algorithm for using survey methods;
3.1.4	principles of organizing oncological care in the Russian Federation and the Kyrgyz Republic, general issues of organizing oncological care for the population, the work of oncological institutions,
3.1.5	knowledge of the principles of medical ethics and deontology, maintaining approved forms of accounting and reporting
3.1.6	Etiopathogenesis of malignant tumors, clinical manifestations of all tumor diseases, examination methods that allow them to be diagnosed or excluded.
3.1.7	algorithm for using examination methods, methods of treatment of all types of tumor diseases
3.1.8	medical institutions where patients can and should receive this treatment, prognosis (life, work, social) for each disease, possibilities and methods of tumor prevention;
3.1.9	ethics of communication with cancer patients and their relatives;
3.1.10	qualified collection of anamnesis, physical examination methods;
3.1.11	general issues of organizing medical and preventive care and providing medicines to various population groups in accordance with the nosological forms of diseases;
3.1.12	ethical standards for the use of medicines, both during the testing of new and registered ones;
3.1.13	forms of information on new drugs taking into account efficacy, dosage regimen, interactions and side effects;
3.1.14	the main clinical and pharmacological characteristics of drugs used in general medical practice;

3.1.15	Side effects of drugs, predictable and unpredictable, ways to prevent and correct side effects of drugs.
3.2	**Be able to:**
3.2.1	choose the most informative methods of physical, instrumental and laboratory examination;
3.2.2	summarize and correctly evaluate the results of the survey;
3.2.3	assess the severity of the patient's condition and apply the necessary measures to bring the patient out of this condition;
3.2.4	assess the severity of the patient's condition, apply the necessary measures to bring the patient out of this condition,
3.2.5	determine the scope and sequence of treatment measures; carry out emergency and resuscitation measures; select the most effective treatment methods for each individual patient;
3.2.6	rationally plan algorithms for combined and comprehensive treatment;
3.2.7	to rationalize the results of treatment and diagnostic work with cancer patients;
3.2.8	organize in the medical institution a system of information on the choice of drugs, their regimen
3.2.9	dosage, interactions, predicted side effects;
3.2.10	to monitor the use of medicines in a medical institution, their expiration dates,
3.2.11	compliance with compatibility, compliance with storage rules;
3.2.12	Provide assistance in selecting combination therapy to avoid unwanted interactions, increased side effects, and decreased effectiveness of the base drug; administer pharmacotherapy to hospital and clinic physicians, taking into account the severity of the disease, functional systems, biorhythm, genetic background, age, physiological conditions, and pharmacokinetic characteristics;
3.2.13	provide assistance in choosing combination therapy in order to eliminate unwanted interactions, increased side effects, and reduced effectiveness of the basic drug.
3.3	**Own:**
3.3.1	qualified collection of anamnesis, physical examination methods;
3.3.2	method of differential diagnosis of malignant neoplasms and emergency conditions;
3.3.3	methods of collecting material for morphological examination (smears, scrapings, punctures);
3.3.4	a method for analyzing cases of late detection of oncological diseases, analysis of discrepancies
3.3.5	diagnoses (primary, concomitant and their complications) and causes of death, development of measures to improve the quality of treatment and diagnostic work;
3.3.6	ethics of communication with cancer patients and their relatives; qualified collection of anamnesis, methods of physical examination;
3.3.7	treatment methods (depending on the chosen specialty profile), surgical or medicinal management and monitoring at all stages of treatment, methods of correcting developed complications;
3.3.8	the principles of rational pharmacotherapy taking into account the severity of the disease, the state of functional systems, genetic and age characteristics, and data from drug pharmacokinetic monitoring;
3.3.9	methods for correcting pharmacotherapy for patients diagnosed with adverse drug reactions or resistance to ongoing pharmacotherapy;
3.3.10	the fundamentals of the work of the clinical expert commission;
3.3.11	methods of departmental examination of the quality of administered pharmacotherapy

4. STRUCTURE AND CONTENT OF THE DISCIPLINE (MODULE)

Lesson code	Name of sections item/type of lesson/	Semester/Course	Hours	Competent-tions	Literature	Inte ract.	Pr. prep.	Note
	Section 1. Section 1. General oncology							
1.1	Contemporary issues in oncology. Organization oncology service in Russia and Kyrgyzstan /Lek/	11	2	PC-5 PC-6	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
1.2	Main theories emergence and development cancer. Pathogenesis of clinical symptoms. Principles diagnostics and treatment	11	2	PC-5 PC-6	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			

1.3	Main theories the occurrence and development of cancer. Pathogenesis of clinical symptoms. Principles diagnosis of malignant	11	3	PC-5 PC-6PC-8	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
1.4	Modern problems oncology. Organization oncology service in Russia and Kyrgyzstan /Pr/	11	3	PC-5 PC-6	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
1.5	Issues of Ethics and Deontology in oncology. Accounting and other documentation on	11	3	PC-5 PC-6PC-8 PC-9	L1.1L2.2L2.3L3.1L3.2 L3.3L3.4			
1.6	pathological syndromes in oncological diseases /Wed/	11	3	PC-5 PC-6	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
1.7	New in cancer treatment. Immunotherapy. Rehabilitation. in oncology. Polyclinic oncology. /Pr/	11	3	PC-5 PC-6PC-8	L1.1L2.1L2.2 L2.3			
1.8	Study of the organization oncology services with the statistical department of the	11	2	PC-5 PC-6PC-9	L1.1L2.1L2.2 L2.3			
1.9	Study of accounting and reporting	11	2	PC-5 PC-6	L1.1L2.1L2.2 L2.3			
1.10	Primary and secondary cancer prevention and precancerous diseases in clinic conditions NCO /Wed/	11	2	PC-5 PC-6PC-8 PC-9	L1.1L2.1L2.2 L2.3			
	Section 2. Section 2. Private oncology							
2.1	Lung cancer /Lek/	11	2	PC-5 PC-6PC-8	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
2.2	Precancer and skin cancer. Melanomas /Lek/	11	2	PC-5 PC-6PC-8	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
2.3	Mastopathy and breast cancer glands. /Lek/	11	2	PC-5 PC-6PC-9	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
2.4	Colon and rectal cancer intestines. Stomach, pancreatic, and liver cancer. /Lecture/	11	2	PC-5 PC-6	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
2.5	Precancer and skin cancer. Melanoma. Bone sarcomas and soft tissues. /Pr/	11	3	PC-5 PC-6	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			

2.6	Primary plurals tumors. Problem metastasis in onology. Cancer metastases in undetected primary hearth. /Pr/	11	3	PC-5 PC-6PC-8	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
2.7	Tumors of the head and neck. /Pr/	11	3	PC-5 PC-6	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
2.8	Mastopathy and breast cancer glands. /Pr/	11	3	PC-5 PC-6	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
2.9	Lung cancer. /Pr/	11	3	PC-5 PC-6	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4	2		
2.10	Esophagus and stomach cancer. /Pr/	11	3	PC-5 PC-6PC-8	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4 E9			
2.11	Colon and rectal cancer intestines /Pr/	11	3	PC-5 PC-6PC-8	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4 E10			
2.12	Liver and pancreatic cancer glands. /Pr/	11	3	PC-5 PC-6PC-9	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4	2		
2.13	Precancer and cancer of women genitals (cervix and body uterus, ovaries, vulva) /Pr/	11	3	PC-5 PC-6PC-8	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
2.14	Hemoblastoses. Lymphogranulomatosis. Lymphosarcoma. /Pr/	11	3	PC-5 PC-6PC-8	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
2.15	Prostate cancer, testicle and penis cancer kidneys and bladder. /Pr/	11	3	PC-5 PC-6PC-8 PC-9	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
2.16	Differential diagnostics of skin tumors, pigmented nevi and melanoma /Wed/	11	4	PC-5 PC-6PC-8	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4 E1			
2.17	Outpatient appointment sick with the disease thyroid gland /Wed/	11	4	PC-5 PC-6PC-8	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4 E2 E3 E4			

2.18	Differential diagnostics of mastopathy and cancer mammary gland /Wed/	11	6	PC-5 PC-6PC-8 PC-9	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4 E5 E6 E7			
2.19	Differential lung cancer diagnosis. Radiographic signs lung cancer. /Wed/	11	6	PC-5 PC-6PC-8	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4 E8			
2.20	EGD for esophageal cancer and stomach. /Wed/	11	2	PC-5 PC-6PC-9	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4 E9			
2.21	Irrigoscopy for cancer colon and rectum. /Wed/	11	2	PC-5 PC-6PC-8	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4 E10			
2.22	Liver and pancreatic cancer glands (palpation and percussion). /Wed/	11	2	PC-5 PC-6PC-8 PC-9	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4 E11 E12			
2.23	Precancer and cancer of women genitals (cervix and body uterus, ovaries, vulva). /Wed/	11	2	PC-5 PC-6PC-8 PC-9	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4 E13 E14			
2.24	Radiographic signs bone tumors /Wed/	11	2	PC-5 PC-6PC-9	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4 E15			
2.25	Cystoscopy for cancer bladder, digital research /Wed/	11	1.7	PC-5 PC-6	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4 E16			
2.26	Precancer and cancer of the cervix. Uterine body cancer. Cancer ovaries. /Lek/	11	2	PC-5 PC-6	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
2.27	Hemoblastoses. Lymphomas and leukemia. /Lek/	11	2	PC-5 PC-6	L1.1L2.1L2.2L2.3L3.1L3.2 L3.3L3.4			
	Section 3. Section 3. Radiation Therapy							
3.1	Radiation Therapy. Types radiation therapy. Indications and contraindications to radiation	11	3	PC-5 PC-6	L1.1L2.1L2.2 L2.3 E17			

3.2	Private Radiation Questions therapy by localization ZNO /Pr/	11	3	PC-5 PC-6PC-9	L1.1L2.1L2.2 L2.3 E18			
3.3	/KrTO/	11	0.3	PC-5 PC-6	L1.1			
3.4	/CreditSocial/	11		PC-5 PC-6	L1.1			

5. ASSESSMENT TOOLS FUND

5.1. Test questions and tasks

Questions to check your level of KNOWLEDGE:
1. Organization of oncological care in Russia and Kyrgyzstan.
2. Basic biological features of tumor tissue.
3. Screening tests aimed at detecting early forms of cancer. The system of medical examinations.
4. Skin cancer, melanoma.
5. Tumors of the head and neck.
6. Thyroid cancer.
7. Precancerous diseases and breast cancer.
8. Tumors of the reproductive system
9. Lung cancer.
10. Esophageal cancer. Stomach cancer. Colon and rectal cancer.
11. Liver and pancreatic cancer.
12. Tumors of bones and soft tissues.
13. Malignant lymphomas. Lymphogranulomatosis.
Tasks to check the level of learning TO BE ABLE
1. Complete the registration documentation for an oncology patient:
- notification of a newly diagnosed patient;
- control card for dispensary observation;
- an extract from the medical history of an oncological patient;
- protocol for an advanced case of malignant neoplasm;
2. Interpret radiographs of various organs with typical signs of neoplasms; evaluate the data laboratory and instrumental studies. Detect a pathological shadow on a chest X-ray cells;
3. To identify skin symptoms and nipple symptoms in breast cancer;
4. Suspect skin cancer and lower lip cancer based on external signs. Distinguish melanoma from pigmented dermatitis based on its appearance.
nevus;
5. Formulate a diagnosis of a malignant neoplasm with an assessment of the stage and clinical group;
6. Determine the clinical group of the cancer patient and outline the tactics for his management;
7. Monitor the patient with blood counts and provide medical assistance in case of complications during chemotherapy;
8. Analyze the obtained results of the patient's examination with the appointment of adequate treatment tactics and further observation;
9. Conduct staged treatment of pain syndrome in an incurable cancer patient.
Tasks to test your level of proficiency:
1. Using the handout, demonstrate mastery of the technique of incisional and excisional biopsy;
2. Using the handout, demonstrate mastery of the technique of performing a breast puncture and lymph node if a malignant process is suspected;
3. Using the handout, demonstrate mastery of the technique of performing a diagnostic puncture, taking smears and scrapings for tumors of the genital organs;
4. Using the handout, demonstrate mastery of the technique of conducting a digital examination with interpretation of the detected changes;
5. Using the handout, demonstrate mastery of surgical techniques: tumor excision soft tissues, puncture of the pleural and abdominal cavity;
6. Demonstrate practical skills in providing assistance during typical surgical procedures interventions for tumors of various localizations on the model.

5.2. Topics of coursework (projects)

coursework is not provided

5.3. Assessment Fund

Test (Appendix 1)
Situational tasks (Appendix 2)
Report (Annex 3)
Abstract (Appendix 4)

5.4. List of types of assessment tools

Test
Situational tasks
Report

Abstract
Rating scales for types of assessment tools are in APPENDIX 5

6. EDUCATIONAL, METHODOLOGICAL AND INFORMATIONAL SUPPORT OF THE DISCIPLINE (MODULE)

6.1. Recommended literature

6.1.1. Primary Literature

	Authors,	Title	Publisher, year
L1.1	Z.P. Kamarli	Oncology	2013

6.1.2. Further reading

	Authors,	Title	Publisher, year
L2.1	Gancev Sh.Kh.	Oncology: Textbook	M.: OOO "Medical Information Agency" 2006
L2.2	Cherenkov V.G.	Clinical Oncology: A	
L2.3	Chissov V.I., Daryalova S.L.	Oncology: Textbook with CD	M.: GEOTAR-Media 2007

6.1.3. Methodological developments

	Authors,	Title	Publisher, year
L3.1	Compiled by: E.K. Makimbetov, I.G. Bauer, A.A. Usenova;Under	Lecture course on hemoblastoses	Bishkek: Publishing house KRSU 2009
L3.2	Kamarli Z.P., Makimbetov	Lecture course on oncourology: lecture	Bishkek: KRSU Publishing House 2016
L3.3	Makimbetov	Lecture course on	Bishkek: KRSU Publishing House 2006
L3.4	Makimbetov E.K., Tsopova I.A., Usenova A.A.,	Acute leukemia: guidelines	Bishkek: KRSU Publishing House 2006

6.2. List of resources of the information and telecommunications network "Internet"

E1	Russian Medical Oncology Portal	https://oncology.ru/
E2	Internet portal of the Russian Society of Clinical Oncology	https://www.rosoncoweb.ru/
E3	Thyroid cancer	https://www.euroonco.ru/oncology
E4	Thyroid cancer	www.docrates.com/ru/tipyraka/rak-shchitovidnoj
E5	Breast cancer	https://oncology-association.ru/docs/rak_mol
E6	Breast cancer	http://omr.by/sites/default/files/struktura/22_Breast_Can
E7	Breast cancer	cer.pdfhttp://www.rcrz.kz/docs/clinic_protocol/2015/%D0%
E8	Lung cancer	http://omr.by/sites/default/files/struktura/17_Lung_Canc
E9	Gastroscopy	er.pdfhttp://03book.ru/upload/iblock/aa5/236_Gastroskopijap
E10	Colon cancer prevention	Bloks.pdfhttp://www.okd.ru/patient/it_important/doc/73.pdf
E11	Pancreatic cancer	http://www.polysalov.vipvrach.ru/download/Rak_podzhel
E12	Pancreatic cancer	udochnoj_zhelezy.pdfhttp://www.esmo.org/content/download/94983/1713170/
E13	Clinical guidelines for the diagnosis and treatment of patients with ovarian,	http://oncologyassociation.ru/docs/recome
E14	Targeted therapy for ovarian cancer	http://umedp.ru/upload/iblock/982/98294f7383efda6e3c
E15	Primary bone tumors and bone metastases. Diagnosis and treatment	http://window.edu.ru/resource/201/63201/files/m1.pdf
E16	Bladder cancer	https://oncology-association.ru/docs/recome

E17	Radiation protection in radiotherapy	5vz-rek.pdfhttp://omr.by/sites/default/files/radiacionnaya_zashchita
E18	Radiation therapy in the treatment of inoperable locally advanced esophageal cancer	http://03book.ru/upload/iblock/e99/409_Luchevaja_tera

6.3. List of information and educational technologies

6.3.1 Competency-oriented educational technologies

6.3.1.1	Traditional educational technologies—lectures and seminars—focus primarily on communicating knowledge and methods of action, conveyed to students in a ready-made form and designed for reproducible assimilation and analysis of specific examples. Lecture material is provided to students using multimedia equipment and periodic presentations of case studies. Patient rooms and classrooms are used for student work.
6.3.1.2	Innovative educational technologies foster systemic thinking and the ability to generate ideas when solving various situational problems. These include electronic lecture notes and presentations, a multimedia system (laptop, personal computer), slide sets, tables, and multimedia visual aids covering various sections of the course, as well as visual aids and displays.
6.3.1.3	Information technology education – students' independent use of computers and internet resources to complete practical assignments and conduct independent work. To better understand the material and facilitate independent work, students prepare essays, reports, and presentations.

6.3.2 List of information reference systems and software

6.3.2.1	Electronic library system "ZNANIUM.COM"
6.3.2.2	Information system "Single window of access to educational resources" (http://window.edu.ru/)
6.3.2.3	Electronic Library of KRSU (www.lib.krsu.kg)

7. LOGISTICS AND TECHNICAL SUPPORT OF THE DISCIPLINE (MODULE)

7.1	Clinical base of the National Center of Oncology and Hematology of the Ministry of Health of the Kyrgyz Republic. Bed capacity
7.2	fund 400, more than 13 clinical departments, 2 diagnostic departments. 2 surgical buildings, 2 buildings
7.3	for radiation therapy, 2 operating rooms, 1 intensive care unit. The National Oncology Center has equipment and
7.4	equipment for diagnostics and treatment of cancer patients: X-ray diagnostic systems – 3;
7.5	Mammographs – 2; endoscopic equipment – 5; ultrasound machines – 5; radiation therapy machines – 3
7.6	a CT scanner for topography. Students have access to all departments. The department has
7.7	a room with a separate entrance, a total area of 64 m2, including 3 classrooms with 45 seats.
7.8	In addition, there is 1 training room in the main surgical building on the 1st floor, with 18 seats.
7.9	The department has the following technical equipment: 1 computer, 1 personal computer, a multimedia projector with
7.10	a netbook and a screen. There are 4 stands and 20 visual aids, which are located in the classrooms;
7.11	Educational films – 3. Lectures are held in the large conference hall of the National Oncology Center with 400 seats.

8. METHODOLOGICAL INSTRUCTIONS FOR STUDENTS ON MASTERING THE DISCIPLINE (MODULE)

The technological map of the discipline is in APPENDIX 6
The training consists of classroom studies (72 hours), including a lecture course and practical classes, and
Independent work (108 hours). The main study time is allocated to practical work in oncology.
When studying an academic discipline, it is necessary to use theoretical knowledge and master practical skills in
oncology.
Practical classes are conducted in the form of a survey, demonstration of educational slides and the use of visual aids,
solving situational problems, answering test tasks, analyzing clinical cases.
Independent work of students involves preparation for practical classes, writing papers, completing assignments
creative tasks and includes work with educational literature, lecture material, and work with electronic Internet resources on oncology.
Working with educational literature is considered as a type of educational work in the discipline of oncology and is carried out in
within the hours allocated for its study (in the independent work section).
Each student is provided with access to the library collections of the University and the department.
Methodological recommendations for students and methodological guidelines have been developed for specific sections of the academic
discipline.
Instructions for teachers.
While studying the course, students independently conduct an examination of a cancer patient.
Writing an abstract and a case history contribute to the development of theoretical and practical competencies
skills (abilities).
Student work in a group develops a sense of collectivism and communication skills.
Teaching students helps them develop communication skills with patients, taking into account ethical and deontological principles.
characteristics of the pathology and patients. Independent work with patients contributes to the formation of a medical
behavior, accuracy, discipline.
The initial level of students' knowledge is determined by testing, and current monitoring of the subject's acquisition is determined
oral questioning during classes, during clinical discussions, when solving typical situational problems and answering questions

test tasks.
At the end of the study of an academic discipline (module), an intermediate knowledge assessment is carried out using a test control, testing of practical skills and solving situational problems.
SITUATIONAL PROBLEM.
An example of implementation is in APPENDIX 7
REPORT.
Preparing a report for class.
The main stages of preparing a report:
• choice of topic;
• teacher consultation;
• preparation of a report plan;
• working with sources and literature, collecting material;
• writing the text of the report;
• preparation of the manuscript and its submission to the teacher before the start of the report, which determines its readiness student to perform;
• presenting a report, answering questions.
The topic of the report is proposed by the teacher at the FOS.
ABSTRACT
Recommendations for writing an abstract.
1. The topic of the abstract is chosen in accordance with your interests and must correspond to the given approximate list. It is important that the abstract: firstly, covers both natural scientific and social sides of the problem; and secondly, both general theoretical provisions and specific examples are presented. Especially It is encouraged to use your own examples from the life around you.
2. The abstract must be based on the study of several sources additional to the main literature. Typically, these are specialized monographs or articles. It is also recommended to use them as additional literature, popular science magazines, and newspapers specializing in oncology topics.
3. The outline of the paper should be the author's own. It reflects the author's approach, opinion, and analysis of the problem.
4. All facts and borrowed ideas presented in the abstract must be accompanied by references to source of information. For example: ... Pancreatic cancer (PC) is included in the group of malignant tumors of the gastrointestinal tract, namely, the biliopancreatoduodenal zone, which also includes tumors of the major duodenal papilla and extrahepatic bile ducts (Arsangireeva G.Zh., 1992; Gracheva N.A., 2006;) ...
5. It is unacceptable to simply assemble an abstract from pieces of borrowed text. All quotations must be are presented in quotation marks with the source and page number indicated in parentheses. The absence of quotation marks and references constitutes plagiarism and, in
in accordance with established scientific ethics, is considered a gross violation of copyright.
6. The abstract is prepared as text on standard-size sheets (A4) using Times New Roman font, 14. It begins with a title page (designed according to the sample APPENDIX 8), which indicates the name of the university, educational institution
disciplines, topic of the paper, student's last name and initials, year and geographical location of the university. Then A table of contents with section pages should follow. It is advisable to divide the text of the abstract into sections: chapters, subchapters and title them. The use of quantitative data and illustrations (graphs, tables, diagrams, figures).
7. The abstract concludes with the sections "Conclusion" and "List of References". The conclusion presents main conclusions, clearly formulated in thesis form and usually numbered.
8. The list of references must be compiled in full compliance with the current standard (rules), including special punctuation placement. For this, it's enough to use any book as an example. published by major scientific publishing houses: "Science", "Oncology", "Radiation Therapy", etc. Or the one cited above bibliography. In general, the most commonly used order of bibliographic references in our country is next:
Author I.O. Book title. Place of publication: Publisher, Year of publication. Total number of pages in the book.
Author I.O. Title of the article // Title of the journal. Year of publication. Volume __. No. __. Pages from __ to ___.
Author I.O. Title of article / Title of collection. Place of publication: Publisher, Year of publication. Pages from __ to ___.
Approximate content of the work:
Title: Volume: 13-15 pages.