

MINISTRY OF HEALTH CARE OF UKRAINE
DANYLO HALYTSKY LVIV NATIONAL MEDICAL UNIVERSITY
Department of Oncology and Radiology

CONFIRM
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“ _____ ” _____ 2021

EDUCATIONAL PROGRAM OF DISCIPLINE
“ONCOLOGY”

training of specialists of the second (master's) degree of higher education
field of knowledge 22 " Health care"
specialty 222 "Medicine"
Individual profile elective course: «Internal Medicine»

Discussed and approved
at the Methodical meeting of the
Department oncology and radiology
Protocol №8
from "31" August 2021
Acting head of
Department
Prof. N.A. Volod'ko

Confirmed
profile Methodical Committee
in surgical disciplines
Protocol № 75
From "31" August 2021
Chief of the profile methodical
commission
Prof. V.P. Andryushchenko

Lviv - 2021

Educational program of discipline of oncology for students of the **VI course** of the Internal medicine department of English-speaking students, who study in speciality 222 **Medicine**, individual profile elective course: «**Internal medicine**».

The program "Oncology" was compiled by the staff of the Department of Oncology and Medical Radiology of Danylo Halytsky Lviv National Medical University: prof. Fetsych T.G., prof. Sternuk Yu.M., prof. Volodko N.A., prof. Savran V.R., assoc.prof. Oliynyk Yu.Yu., assoc.prof. Lukavetsky N.O., assoc.prof. Yarema R.R. assist.prof. Revura A.P., assist.. Mryglotskyi M.M., assist. Prystash Yu.Ya., assist Slipetsky R.R.

based on the approximate Oncology program of discipline and curriculum approved by the profile methodical committee (protocol №75 from 31.08.21)

Changes and additions to the educational program for 2021-2022

№	Contents of the changes made (additions)	Date and No. of the session of the department	Notes
1	Updated References	№8 from August 31, 2021	

Attending head of the Department
of Oncology and radiology

_____ prof.N.A. Volod'ko

INTRODUCTION

The study program of the discipline "ONCOLOGY"

according to the Standard of higher education of the *second (master's) level*

areas of knowledge 22 "Health"

specialty 222 "Medicine"

educational program of master of medicine, Individual profile elective course:
«Internal Medicine»

Description of the discipline (abstract) The program "Oncology" is designed to train specialists of the second (master's) level of higher education in the field of knowledge 22 "Health", specialty 222 "Medicine". The program offers a review of basic information on general and clinical oncology. In general oncology, the basic principles of diagnosis of malignant tumors and the basic principles of their treatment are considered. The program is designed for 30 teaching hours / 1 credit.

The structure of the discipline	Number of credits, hours, of them				Year of study semester	type of control
	Total	Classroom		Self work		
		Lectures (hours)	Practical classes (hours)			
Course title: Oncology <i>Content modules 3</i>	1 credit and 30 h	-	18	12	6th year 11-12 semester	credit
for semesters						
<i>Content module 1</i>	0,33 credit / 6 h	-	6	4	11-12 semester	
<i>Content module 2</i>	0,33 credit / 6 h		6	4	11-12 semester	
<i>Content module 3</i>	0,33 credit / 6 h		6	4	11-12 semester	

The subject of study of the discipline is the basics of theoretical and clinical oncology

Interdisciplinary connections: anatomy, histology, pathological anatomy, otolaryngology, dentistry, surgery, dermatology, therapy, radiation therapy, endocrinology, gynecology, urology.

1. The purpose and objectives of the discipline

1.1. The purpose of teaching the discipline " **ONCOLOGY** " (the ultimate goal) is to prepare a master's degree in the specialty. The description of goals is formulated through skills in the form of target tasks (actions). Based on the ultimate goals of the module, specific goals are formulated in the form of certain skills (actions), target tasks that ensure the achievement of the ultimate goal of studying the discipline.

1.2 .The main tasks of studying the discipline " **ONCOLOGY** " are :

- ✓•To determine the tactics of examination of the patient in case of suspicion of a malignant tumor;
- ✓•interpret the results of special research methods;
- ✓•determine the general tactics of treatment for the most common cancers;
- ✓•demonstrate the ability to keep medical records;
- ✓•demonstrate mastery of the principles of oncological deontology.

1.3 Competences and learning outcomes, the formation of which is facilitated by the discipline (relationship with the normative content of training of higher education, formulated in terms of learning outcomes in the Standard of Higher Education).

In accordance with the requirements of the Standard of Higher Education, the discipline provides students with the acquisition of *competencies* :

- *general* :

- ✓•ability to act socially responsible and civic conscious;
- ✓•ability to apply knowledge in practical situations;
- ✓•ability to abstract thinking, analysis and synthesis. ;
- ✓•ability to communicate in the native language orally and in writing;
- ✓•ability to communicate with representatives of other professions.

- *special (professional, subject):*

- ✓•determine the tactics of monitoring and management of the patient in case of suspicion of malignancy;
- ✓•interpret the results of special research methods;
- ✓•formulate a preliminary clinical diagnosis of major cancers;
- ✓•formulate general treatment tactics;
- ✓•demonstrate the ability to keep medical records in the oncology clinic;
- ✓•demonstrate mastery of the principles of oncological deontology.

Detailing of competencies according to descriptors in the form of " Competence Matrix ".

Competence matrix

№	Competence	Knowledge	Skills	Communication	Autonomy and responsibility
1	Ability to abstract thinking and analysis; ability to teach and master modern information and communication technologies	Know the current trends in the industry and the indicators that characterize them.	Be able to analyze professional information, make informed decisions, acquire modern knowledge.	Establish appropriate links to achieve goals.	Be responsible for the timely acquisition of knowledge.
2	Ability and understanding of the subject area and profession.	Know the features of the professional activity of a doctor ..	Be able to carry out professional activities that require updating and integration of knowledge.	To form a communication strategy in professional activity.	Be responsible for the continuous development of a high level of autonomy.
3	Ability to apply knowledge in practical situations.	Know the methods of implementing knowledge in solving practical problems.	Be able to use professional knowledge to solve practical problems	Establish links with the subjects of practical activities.	Be responsible for the validity of decisions.
4	Ability to communicate in the state language and the second (foreign) language.	Know the state language, including professional orientation. Know a foreign language at a level sufficient for professional communication.	Be able to use the state and foreign languages for professional activities and care .	To form a communication strategy in professional activity.	Be responsible for continuous professional development with a high level of autonomy.
5	Ability to search, process and analyze information from various sources in Ukrainian and foreign languages.	Have the necessary knowledge in the field of information technology used in professional activities in Ukrainian and foreign languages.	Be able to use information technology in the professional field to search, process and analyze new information from different sources and in different languages	Use information technology in professional activities.	To be responsible for the continuous development of professional knowledge and skills in Ukrainian and foreign languages.
6	Ability to adapt and act in a new situation	Know the methods of implementing knowledge in solving practical problems.	Be able to use professional knowledge to adapt and act to a new situation.	Establish links with the subjects of practical activities.	To be responsible for the quality of professional tasks in the new situation.
7	Ability to work autonomously, show skills and pose and solve problems.	Know the methods of implementing knowledge in identifying, setting and solving problems of professional activity.	Be able to use professional knowledge to identify, formulate and solve problems of professional activity.	Establish links with the subjects of practical activities in order to identify, formulate and solve problems of professional activity.	To be responsible for the validity of the decisions made to solve problems of professional activity.
8	Ability to choose a communication strategy.	Know the methods of implementing knowledge in choosing a strategy for communicating with patients and colleagues.	Be able to use knowledge to choose a strategy for communicating with patients and colleagues.	To form a communication strategy in professional activity.	Be responsible for continuous professional development with a high level of autonomy.
9	Ability to work in a team	Know the ways of collective interaction while working in a team.	Be able to use knowledge to choose a communication strategy during collective interaction.	To form a communication strategy in professional activity.	Be responsible for continuous professional development.

10	Skills of cooperation with colleagues and patients.	Know the ways of interpersonal interaction when communicating with colleagues and patients.	Be able to use knowledge to choose a communication strategy during collective inter action .	To form a communication strategy in professional activity	Be responsible for continuous professional development with a high level of autonomy.
11	Ability to act on ethical considerations.	Know the moral and ethical principles of a medical specialist and the rules of professional subordination.	Use in practice the moral and ethical principles of the medical specialist and the rules of professional subordination.	Adhere to the moral and ethical principles of a medical specialist and the rules of professional subordination during professional activity.	Be responsible for observance of moral and ethical principles of the medical specialist and rules of professional subordination.
12	Safe activities skills	Ability to assess the level of danger when performing professional tasks.	Be able to carry out professional activities in compliance with safety rules.	Ensure quality performance of professional work in compliance with safety rules.	Be personally responsible for compliance with safety rules when performing professional tasks.
13	Ability to evaluate and ensure the quality of work performed.	Ability to evaluate and ensure quality in performing professional tasks.	Know the methods of evaluating performance indicators.	Be able to ensure the quality of professional work.	Make connections.
Special (professional competencies).					
1	Recognize the moral, ethical and professional rules of the doctor.	Know the basic provisions of the Doctor's Code of Ethics.	Use in practice the Code of Ethics of the doctor.	Adhere to the provisions of the Doctor's Code of Ethics when communicating with patients and colleagues.	To bear personal responsibility for observance in practice of provisions of the Code of Ethics of the doctor.
2	Understand the moral and deontological principles of a medical specialist and the rules of professional subordination in an oncology clinic.	Know the moral and deontological principles of a medical specialist and the rules of professional subordination in an oncology clinic.	To use in practice the moral and deontological principles of a medical specialist and the rules of professional subordination in an oncology clinic.	Adhere to the moral and deontological principles of the medical specialist and the rules of professional subordination in the oncology clinic during professional activity.	To bear personal responsibility for observance of moral and deontological principles of the medical specialist and rules of professional subordination in oncology clinic.
3	Learn to promote a healthy psychological microclimate in the team, learn the basics of the legal relationship of a doctor with cancer patients.	Know the current legal norms of the doctor-patient relationship with cancer.	Use in practice the legal norms of the doctor- patient relationship with cancer. Be able to form a healthy psychological microclimate in the team.	Adhere to the current legal norms of the doctor-patient relationship with oncological disease during professional activity . Maintain a healthy psychological microclimate in the team	To bear personal responsibility for observance of the current legal norms of the doctor-patient relationship with oncological disease.
4	Know the tactics of examination of a patient with suspected tumor of the maxillofacial area.	Know the clinic of tumors of the maxillofacial area	Use the acquired knowledge to make a diagnosis.	Adhere to the current legal norms of the doctor-patient relationship with tumors of the maxillofacial area during professional activity	To bear personal responsibility for observance of the current legal norms of the doctor-patient relationship with oncological disease.
5	Know the tactics of examination of a	Know the clinic of skin tumors.	Use the acquired knowledge to make a diagnosis.	Adhere to the current legal norms of the doctor-patient	To bear personal responsibility for observance of the

	patient with suspected tumor of the skin.			relationship with skin tumors during professional activity	current legal norms of the doctor-patient relationship with oncological disease.
6	Know the tactics of examination of a patient with suspected tumor of the digestive system	Know the clinic of tumors of the digestive system	Use the acquired knowledge to make a diagnosis.	Adhere to the current legal norms of the doctor-patient relationship with tumors of the digestive system during professional activity	To bear personal responsibility for observance of the current legal norms of the doctor-patient relationship with oncological disease.
7	Know the tactics of examination of a patient with suspected tumor disease of the respiratory system.	Know the clinic of tumors of the respiratory system.	Use the acquired knowledge to make a diagnosis.	Adhere to the current legal norms of the doctor-patient relationship with tumors of the respiratory system during professional activity	To bear personal responsibility for observance of the current legal norms of the doctor-patient relationship with oncological disease.
8	Know the tactics of examination of a patient with suspected tumor disease of the excretory and reproductive systems.	Know the clinic of tumors of the excretory and reproductive systems.	Use the acquired knowledge to make a diagnosis	Adhere to the current legal norms of the doctor-patient relationship with tumors of the digestive system during professional activity	To bear personal responsibility for observance of the current legal norms of the doctor-patient relationship with oncological disease.

Learning outcomes:

- ✓ carry out professional activity in social interaction. Based on humanistic and ethical principles;
- ✓ apply knowledge of general and professional disciplines in professional activities;
- ✓ demonstrate the ability to independently search, analyze and synthesize information from various sources;
- ✓ argue information for decision-making, to be responsible for them in standard and non-standard professional situations, to adhere to the principles of deontology and ethics in professional activity;
- ✓ carry out professional communication in modern Ukrainian literary language;
- ✓ adhere to the norms of communication in professional interaction with colleagues, management to work effectively in a team.

Integrative final program learning outcomes, the formation of which is facilitated by the discipline:

- ✓ Integrate knowledge and solve complex issues;
- ✓ Formulate judgments on insufficient or limited information;
- ✓ Clearly and unambiguously communicate their conclusions and knowledge, reasonably substantiating them, to the professional and non-professional audience.

2. Information volume of the discipline

The study of the discipline is given 1 credit and ECTS, 30 hours.

Content of the program

Module I. Oncology.

Content module 1 . Oncologic alertness. Cancer screening

Content module 2. Treatment of complicated forms of cancer. Emergency therapy in oncology. Problem of pain in oncology, treatment of chronic pain.

Content module 3 . Palliative and symptomatic treatment in oncology.

Methods of rehabilitation

The educational process is organized according to the credit-module system in accordance with the requirements of the Bologna Declaration.

According to the experimental curriculum program for the 6th year, volume 30 hours (1 credit), consisting of 18 hours practical classes and 12 hours of independent work of students on the study of the major issues of Clinical Oncology, treatment of complicated forms of cancer. Emergency therapy in oncology. Problem of pain in oncology, treatment of chronic pain.

The discipline program consists of one module, which is divided into 3 content modules. The amount of student workload is described in ECTS credits - credit credits, which are credited to students upon successful completion of the relevant module.

The teaching of oncology is carried out at the departments and courses of oncology, where there are qualified scientific and pedagogical staff of oncologists. The bases for teaching clinical oncology should be medical and diagnostic institutions of oncological profile, which have the necessary bed stock, cancer patients, equipment and scope of work.

Module " Oncology "

Content module 1 . Oncologic alertness. Cancer screening

Content module 2. Treatment of complicated forms of cancer. Emergency therapy in oncology. Problem of pain in oncology, treatment of chronic pain.

Content module 3 . Palliative and symptomatic treatment in oncology.

Methods of rehabilitation

Types of classes according to the curriculum are:

- a) practical classes;
- b) independent work of students.

Thematic plans of practical classes and independent work ensure the implementation in the educational process of all topics that are part of the content modules.

Practical classes in clinical disciplines are conducted by rotating and combining modules of clinical disciplines. Practical exercises provide students study basic questions of theoretical oncology, oncological service organization, prevention, clinic, diagnosis, treatment of the most common tumors of bronchopulmonary system, digestive tract, mediastinum, breast, urinary tract and genital skin.

Practical classes lasting 6 academic hours are held in the oncology clinic and consist of four structural parts: mastering the theoretical part of the topic; demonstration of the thematic patient; work of students to practice practical skills under the supervision of a teacher; solving situational tasks and test-control of mastering the material. Particular attention is paid to the peculiarities of

communication with the patient, the detection of early signs of malignancy and factors that contribute to its occurrence.

Independent work of students occupies an important place in the study of oncology. In addition to extracurricular training on theoretical issues of oncology, it includes the work of students in the departments of the hospital, operating room and clinic under the supervision of a teacher. Independent work includes the study of certain sections of general oncology, supervision of patients with writing a medical history.

The current educational activity of the student is controlled at practical classes according to the concrete purposes, the intermediate control of mastering of semantic modules is carried out at the last employment of each module. It is recommended to use the following tools to diagnose the level of preparation of students: solving situational problems, solving tests, monitoring the implementation of practical skills in methods of examining the patient with subsequent interpretation of the data, analysis and evaluation of instrumental and laboratory tests.

The final control of mastering the module is carried out after its completion at the final control lesson. Assessment of student achievement in the discipline is a rating and is set on a multi-point scale and is determined by the ECTS system and the traditional scale adopted in Ukraine.

For those students who want to improve the performance of the discipline on the ECTS scale, the final control of the module is carried out in accordance with the regulations in addition to the schedule approved by the institution.

3. Contents of the program

Content module 1 . Oncologic alertness. Cancer screening.

Specific goals:

- to create in the student a modern idea of tumor growth
- give information about the etiology of tumor growth
- the concept of carcinogens
- present current information on carcinogenesis
- to state the basic principles of diagnostics of tumor processes
- to state the basic principles of treatment of tumor processes.

Content module 2. Treatment of complicated forms of cancer. Emergency therapy in oncology. Problem of pain in oncology, treatment of chronic pain.

Specific goals:

- chronic pain, medical and surgical correction of chronic pain
- treatment of complicated forms of cancer.
- emergency therapy in oncology.
- tactics of surgical treatment measures in emergency care.

Content module 3. Palliative and symptomatic treatment in oncology. Methods of rehabilitation.

The purpose of teaching the discipline "Palliative and Hospice Medicine" (ultimate goal) is to prepare a master's degree in the specialty. The description of goals is formulated through skills in the form of target tasks (actions). Based on the ultimate

Total on the content module	0	6	3	
Content module 2. Treatment of complicated forms of cancer. Emergency therapy in oncology. Problem of pain in oncology, treatment of chronic pain.				
-chronic pain, medical and surgical correction of chronic pain - treatment of complicated forms of cancer. - emergency therapy in oncology. - tactics of surgical treatment measures in emergency care.		2 2 2	2	Examination of patients in the departments of the hospital and clinic; work in the operating room; participation in conducting instrumental research; curation of patients with writing a medical history.
Total on the content module		6	2	
Content module 3. Palliative and symptomatic treatment in oncology. Methods of rehabilitation.				
-determine the tactics of palliative care - interpret the results of the study - demonstrate the ability to keep medical records - demonstrate mastery of the principles of oncological deontology - competencies and learning outcomes, the formation of which provides the study of the discipline (general and special competencies):		2 2 2	2	Examination of patients in the departments of the hospital and clinic; work in the operating room; participation in the holding instrumental research; curation of patients with writing a medical history.
Total on the content module		6	2	

4. Thematic plan of practical classes on Oncology

	Topic	Number of hours
	Thematic plan for the content module 1	
1	Oncologic alertness. Cancer screening	6
	Thematic plan for the content module 2	
2	Treatment of complicated forms of cancer. Emergency therapy in oncology. Problem of pain in oncology, treatment of chronic pain.	6
	Thematic plan for the content module 3	
3	Palliative and symptomatic treatment in oncology. Methods of rehabilitation.	6
Total		18

Types of independent work of students and its control

Independent extracurricular work of students precedes their independent work in practical classes and involves their preparation for practical classes, guided by guidelines, and includes the supervision of patients with a medical history and preparation for the final control of the module.

№ s / n	Topic	Number of hours
1	Cancer statistics.	2
2	High-risk groups in oncology.	2
3	Types of surgical operations	2
4	Treatment of complicated forms of cancer. Emergency care	2
5	Rehabilitation treatment of oncological patients	2
6	Rehabilitation	2
Total:		12

8. Teaching methods. In the process of studying the discipline "Oncology" the following teaching methods are used:

- *by type of cognitive activity*: explanatory-illustrative, analytical, synthetic, inductive, deductive;
- *according to the main stages of the process*: formation of knowledge, application of knowledge, generalization, formation of abilities and skills, consolidation, verification;

- *according to the system approach*: stimulation and motivation, control and self-control;
- *by sources of knowledge*: verbal - story, conversation, visual - demonstration, illustration.

9. Control methods

The assessment of the discipline includes the assessment of theoretical knowledge and practical skills of the student, as well as taking into account the result of writing a pre-examination test control and the average certification score.

10. Current control is carried out during practical classes, which assess the knowledge of theoretical and practical material in the form of:

- individual oral questioning on theoretical issues that are included in the methodological developments on relevant topics;
- test tasks;
- solving situational problems;
- ability to recognize specific nosological forms of cancer ;
- registration of disease history protocols.

Evaluation of current educational activities. During the assessment of mastering each topic for the current educational activity of the student, grades are set on a 4-point (traditional) scale, taking into account the approved assessment criteria for the relevant discipline. This takes into account all types of work provided by the curriculum. The student must receive a grade on each topic. Forms of assessment of current educational activities should be standardized and include control of theoretical and practical training. The scores given on the traditional scale are converted into points.

The list of control questions is in the methodical instructions to students for practical classes. The final control classes also include questions from the lecture course and topics that are submitted for independent work.

Students who have fully attended classroom classes (practical classes and lectures) in the discipline provided by the curriculum are allowed to take the final classes and pass the commission exam.

Criteria for assessing knowledge and skills

The assessment of the discipline includes the assessment of theoretical knowledge and practical skills of the student, as well as taking into account the result of writing a pre-examination test control and the average certification score.

Grade "**excellent**" is given when the student has deeply and thoroughly mastered the theoretical material, can determine the etiology, pathogenesis, clinical features and variants of the disease in specific patients, substantiates the diagnosis, makes a differential diagnosis, makes a detailed plan for treatment and rehabilitation of a particular patient. , comorbidities), is able to provide emergency care, has in-depth knowledge of the principles of diagnosis and treatment, independently, competently and consistently, with complete completeness, using data from additional literature,

answered all questions with the ability to diagnose specific nosological forms, solved situational tasks.

A grade of **“good”** is given when a student who has mastered the theoretical material from all sections of the program, is mature in the material, has good practical training, has sufficient knowledge of the principles of diagnosis and treatment, but admits some inaccurate inaccuracies in answers and clinical situational task.

A grade of **"satisfactory" is given** to a student when he knows the actual material in the full course program, but finds it difficult to independently and systematically present the answers, forcing the teacher to offer him leading questions.

The grade **"unsatisfactory" is given** in those cases when the student shows complete ignorance of the questions and is poorly oriented in the main material of the course of histology, which is revealed by offering him additional questions.

11. Final control. The semester credit is set based on the results of the current control.

12. Scheme of accrual and distribution of points received by students

The maximum number of points that a student can score for the current academic activity in the study of the discipline is 200 points.

The minimum number of points that a student must score for the current academic activity to enroll in the discipline is 120 points.

The calculation of the number of points is based on the grades obtained by the student on the traditional scale during the study of the discipline during the semester, by calculating the arithmetic mean (AM), rounded to two decimal places. The resulting value is converted into points on a multi-point scale as follows:

$$\frac{AM \times 200}{5}$$

For convenience, the table of recalculation on a 200-point scale is given:

Table 1.

Recalculation of the average grade for current activities in a multi-point scale for disciplines that end with a credit

4-point scale	200-point scale	4-point scale	200-point scale	4-point scale	200-point scale	4-point scale	200-point scale
5	200	4.45	178	3.92	157	3.37	135
4.97	199	4.42	177	3.89	156	3.35	134
4.95	198	4.4	176	3.87	155	3.32	133
4.92	197	4.37	175	3.84	154	3.3	132
4.9	196	4.35	174	3.82	153	3.27	131
4.87	195	4.32	173	3.79	152	3.25	130
4.85	194	4.3	172	3.77	151	3.22	129
4.82	193	4.27	171	3.74	150	3.2	128
4.8	192	4.24	170	3.72	149	3.17	127
4.77	191	4.22	169	3.7	148	3.15	126
4.75	190	4.19	168	3.67	147	3.12	125
4.72	189	4.17	167	3.65	146	3.1	124

4.7	188
4.67	187
4.65	186
4.62	185
4.6	184
4.57	183
4.52	181
4.5	180
4.47	179

4.14	166
4.12	165
4.09	164
4.07	163
4.04	162
4.02	161
3.99	160
3.97	159
3.94	158

3.62	145
3.57	143
3.55	142
3.52	141
3.5	140
3.47	139
3.45	138
3.42	137
3.4	136

3.07	123
3.02	121
3	120
Less 3	not enough

Points from the discipline are independently converted into both the ECTS scale and the 4-point (national) scale. ECTS scale scores are not converted to a 4-point scale and vice versa.

The scores of students studying in one specialty, taking into account the number of points earned in the discipline are ranked on the ECTS scale as follows:

ECTS assessment	Statistical indicator
A	The best 10% of students
B	The next 25% of students
C	The next 30% of students
D	The next 25% of students
E	The last 10% of students

Ranking with assignments of grades "A", "B", "C", "D", "E" is carried out for students of this course who study in one specialty and have successfully completed the study of the discipline. Students who receive grades FX , F ("2") are not included in the list of ranked students . Students with a grade of FX automatically receive an "E" score after retaking.

Discipline scores for students who have successfully completed the program are converted into a traditional 4-point scale according to the absolute criteria, which are given in the table below:

Points in the discipline	Score on a 4-point scale
From 170 to 200 points	5
From 140 to 169 points	4
From 139 points to the minimum number of points that a student must score	3
Below the minimum number of points that a student must score	2

The ECTS score is not converted to the traditional scale, as the ECTS scale and the four-point scale are independent.

The objectivity of the assessment of students' learning activities is checked by statistical methods (correlation coefficient between ECTS assessment and assessment on a national scale).

13. Methodical support. Methodological Support provides lecture notes, plans workshops, methodical workshops and independent work tasks for practical work tasks of the current and final control of knowledge and student's skills acquired knowledge and skills in oncology.

14. Recommended literature

1. Bilynskyy B. Oncology (selected lectures for students and phisicians) – Lviv: Danylo Halytsky Lviv National Medical University, 2021. – 170 p.
2. Bilinsky BT Medical errors in oncology. Lviv: Afisha, 2013. - 324 p.
3. Selected lectures on clinical oncology: textbook / Bondar GV, Dumansky Yu. V., Antipova SV, Popovych O. Yu. - Lugansk: "Lugansk Regional Printing House", 2009. - 560 p.
4. Oncology: Textbook. - 3rd edition, revised. and ext. / BT Bilinsky, NA Volodko, AI Hnatyshak. – Kyiv, Zdorovia, 2007. - 532 p.
5. Oncology. Selected lectures for students and doctors / Ed. V.F. Chehun . - Kyiv: Health of Ukraine, 2010. - 768 p.
6. Oncology: Textbook / GV Cooper, Yu. Dumansky, O. Yu. Popovych and others. – Kyiv, «Medicine», 2013. - 544 p.
7. Savran VR Breast cancer.- Lviv. - 2019 - 219 c.
8. Vincent T. Devita , Jn . Samuel Hellman, Steven A. Rosenberg. CANCER. Principles and practice of Oncology. 6th Edition.
9. TNM-classification, 7th edition. - 2014. - 169 p.

List of additional literature

1. Radiology (Radiation diagnostics and radiation therapy.) / Ed. M. M. Tkachenko. K .: Kniga Plus, 2011. - 719 p.
2. Savran VR, Kens AA, Mryglotsky MM, Savran VV Breast cancer: a textbook. Lviv, 2012. - 236 p.

Information resources

1. Ministry of Healthcare - <http://www.moz.gov.ua/>
2. Wikipaedia - <http://wikipedia.org>
3. UpToDate – <http://www.uptodate.com/home>
4. Access Medicine - <http://accessmedicine.mhmedical.com>
5. PubMed - <https://www.ncbi.nlm.nih.gov/pmc/>