



Syllabus of the discipline «Oncology» (OK31)

1. General information	
Faculty	General medicine
Educational program (branch, speciality, level of higher education, form of education)	22 Healthcare, 222 Medicine, second (master's) level of higher education, full-time
Academic year	2021/2022
Name of discipline, code (<i>e-mail address on the website of Danylo Halytsky Lviv National Medical University</i>)	Oncology, OK 31 https://new.meduniv.lviv.ua/kafedry/kafedra-onkologiyi-i-radiologiyi-fpdo/
Department (<i>name, address, phone, e-mail</i>)	Department of oncology and radiology FPGE, 79031 Lviv city, Hascheka str., 2a, phone: +38 (032) 295-37-70, e-mail: kaf_oncology_fpge@meduniv.lviv.ua
Acting Head of the department (<i>contact e-mail</i>)	Volod'ko Natalia Antonivna, doctor of medical sciences, professor, e-mail: kaf_oncology_fpge@meduniv.lviv.ua
Year of study (<i>year in which study is implemented</i>)	5 course
Semester (<i>semester in which discipline is implemented</i>)	9/10 semester
Type of discipline/module (<i>compulsory/optional</i>)	compulsory discipline
Lecturers (<i>names, surnames, scientific degrees and titles of lecturers, who teach the discipline, contact e-mail</i>)	Volod'ko Natalia Antonivna, doctor of medical sciences, professor, surgeon-oncologist of the highest qualification category; Bilynskyi Borys Tarasovych, doctor of medical sciences, honored professor, surgeon-oncologist of the highest qualification category, academic of National academy of higher educational sciences of Ukraine; Sterniuk Yurii Marjanovych, doctor of medical sciences, professor, surgeon-oncologist of the highest qualification category, head lecturer for students; Lukavetskyi Nazar Oleksijovych, PhD, docent, surgeon-oncologist of the highest qualification category, responsible for scientific work; Yarema Roman Romanovych, PhD, docent, surgeon-oncologist of the first qualification category, responsible for internship; Mryglotskyi Marian Mychajlovich, PhD, surgeon-oncologist, assistant Dutchak Uliana Myroslavivna, PhD, radiologist, docent; Kowalskyi Vasyl Volodymyrovych, PhD, surgeon-oncologist of the highest qualification category, assistant; Revura Andrii Petrovych, PhD, surgeon-oncologist, assistant; Prystash Yurii Yuriyovych, surgeon-oncologist of the first qualification category, assistant; Slipetsky Roman Rostyslavovych, surgeon-oncologist of the

	second qualification category, assistant Fetsych Markiian Tarasovych, surgeon-oncologist, assistant e-mail: kaf_oncology_fpge@meduniv.lviv.ua
Erasmus yes/no (<i>availability of the discipline for students within the Erasmus+ program</i>)	no
Person, responsible for the syllabus (<i>the person to whom comments on the syllabus should be made, contact e-mail</i>)	Sterniuk Yurii Marjanovych, doctor of medical sciences, professor, (kaf_oncology_fpge@meduniv.lviv.ua)
ECTS credits	3
Number of hours (<i>lectures/ practical classes/ self-work of students</i>)	Lectures – 10 hours practical classes – 40 hours self-work of students – 40 hours
Language of study	English
Information about consultations	provided
Address, phone and schedule of work of clinical base, office (<i>in case of need</i>)	79031 Lviv city, Hascheka str., 2a.
2. Short annotation to course	
<p>The program “Oncology” is designed to train specialists of the second (master’s) level of higher education in the field of knowledge 22 “Healthcare”, 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. Among the issues of clinical oncology are tumors of the digestive tract, tumors of the respiratory system, breast and thyroid gland, skin tumors, tumors of the genitals and urinary organs. The program is designed for 90 teaching hours / 3 credits</p>	
General characteristics, brief description of the course, features, benefits	
3. The purpose and objectives of the course	
<ol style="list-style-type: none"> 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. 2. Purposes of study: <ul style="list-style-type: none"> • 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 maintain medical records; • demonstrate mastery of the principles of oncological deontology. 3. Competences and learning outcomes, the formation of which provides the study of discipline (general and special competencies): <ul style="list-style-type: none"> -general: <ul style="list-style-type: none"> • ability to act socially responsibly and civically consciously • 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 an oncology clinic;
 - demonstrate mastery of the principles of oncological deontology.

4. Course details

Information on the disciplines, basic knowledge and learning outcomes required by the student (enrolled) for successful study and acquisition of competencies in this discipline:

1. anatomy,
2. histology,
3. pathological anatomy,
4. otolaryngology,
5. dentistry,
6. surgery,
7. dermatology,
8. therapy,
9. radiation therapy,
10. endocrinology,
11. gynecology,
12. urology

5. Program results of education

List of education results

Code of education results	The content of learning outcome	Reference to the competency matrix code
<i>Kn-1</i>	to create in the student a modern principles of tumor growth	<i>PR1</i>
<i>Kn-2</i>	give information about the etiology of tumor growth	
<i>Kn-3</i>	the concept of carcinogens	
<i>Kn-4</i>	present current information on	
<i>Kn-5</i>	carcinogenesis	
<i>Kn-6</i>	to state the basic principles of diagnostics of tumor to state the basic principles of treatment of tumor	
<i>Ab-1</i>	to substantiate the diagnosis,	<i>PR-2</i>
<i>Ab-2</i>	to carry out differential diagnostics,	
<i>Ab-3</i>	to make the detailed plan of treatment and rehabilitation of the concrete patient (taking into account age, concomitant diseases),	
<i>Ab-4</i>	be able to provide emergency care	
<i>C-1</i>	to carry out professional activity in social interaction based on humanistic and ethical principles;	<i>PR-3</i>
<i>C-2</i>	to carry out professional activity in social interaction based on humanistic and ethical	

		principles;		
<i>AB-1</i>		demonstrate the ability of independent search, analysis and synthesis;		<i>PR-4</i>
<i>AB-2</i>		argue information for decision-making, be responsible for them in standard and non-standard professional situations,		
<i>AB-3</i>		adhere to the principles of deontology and ethics in professional activities		
6. Format and volume of course				
Course format (specify full-time or part-time)	<i>Full-time</i>			
Type of lessons		Number of hours		Number of groups
lectures		10		
practical classes		40		
seminars		-		
self-work		40		
7. Topics and content of the course				
Code of the type of lessons	Theme	Content of education	Code of education results	Lecturer
L-1	Malignant tumors. Epidemiology. Organization of oncological care in Ukraine. AIDS, related diseases and associated tumors. Etiology of malignant tumors	Definition of "tumor". Apoptosis. Benign and malignant tumors. Epidemiology of cancer. Morphological types of malignant tumors. Etiology of tumors. Cancer initiators and promoters. Chemical and physical factors of cancer. Biological factors of cancer.	<i>Kn-1</i> <i>Kn-2</i>	According to schedule
L-2	Carcinogenesis	Definition of "carcinogenesis". Pathogenic and sanogenic mechanisms in carcinogenesis. Carcinogenesis at the cell level. Chemical and physical carcinogenesis. Viral carcinogenesis. Functions of oncoproteins. Growth factors. The role of autocrine secretion in the activity of tumor cells.	<i>Kn-3</i>	According to schedule
L-3	Clinical stages and morphology of cancer	The role of a standardized approach	<i>Kn-4</i>	According to schedule

		of the same type in describing the extent of the tumor in the body, its histological structure for treatment planning, evaluation of its results, treatment protocol and information exchange.		
L-4	Modern methods of diagnostics of cancer	Features of examination of patients with suspected cancer. Levels of cancer diagnosis. Extremely early, early, timely and late diagnosis. The concept of oncology. Endoscopic examinations. Research methods with image creation. Radionuclide studies	<i>Kn-5</i> <i>AB-1</i>	According to schedule
L-5	Modern methods of treatment of cancer.	Radical treatment. Palliative treatment. Symptomatic treatment. Methods of local exposure to the tumor. Methods of systemic effect on the tumor. Combination treatment. Comprehensive treatment	<i>Kn-6</i> <i>AB-2</i> <i>AB-3</i>	According to schedule
P-1	Lips and oral cavity cancer. Clinical presentation, diagnostics, methods of treatment.	conduct surveys and physical examinations of patients, determine the tactics of examination and management of the patient in case of suspicion of malignancy, interpret the results of special research methods, formulate a preliminary clinical diagnosis in case of cancer, determine the tactics of cancer patients, demonstrate medical records	<i>Ab-1</i> <i>Ab-2</i> <i>Ab-3</i> <i>Ab-4</i> <i>C-1</i> <i>C-2</i>	According to schedule
P-2	Esophageal and stomach tumors. Clinical presentation, diagnostics, methods of treatment.	conduct surveys and physical examinations of patients, determine the tactics of examination and	<i>Ab-1</i> <i>Ab-2</i> <i>Ab-3</i> <i>Ab-4</i> <i>C-1</i>	According to schedule

		management of the patient in case of suspicion of malignancy, interpret the results of special research methods, formulate a preliminary clinical diagnosis in case of cancer, determine the tactics of cancer patients, demonstrate medical records	C-2	
P-3	Colon and rectum cancer. Liver and pancreas cancer. Clinical presentation, diagnostics, methods of treatment	conduct surveys and physical examinations of patients, determine the tactics of examination and management of the patient in case of suspicion of malignancy, interpret the results of special research methods, formulate a preliminary clinical diagnosis in case of cancer, determine the tactics of cancer patients, demonstrate medical records	Ab-1 Ab-2 Ab-3 Ab-4 C-1 C-2	According to schedule
P-4	Lung cancer. Tumors of mediastinum. Clinical presentation, diagnostics, methods of treatment	conduct surveys and physical examinations of patients, determine the tactics of examination and management of the patient in case of suspicion of malignancy, interpret the results of special research methods, formulate a preliminary clinical diagnosis in case of cancer, determine the tactics of cancer patients, demonstrate medical records	Ab-1 Ab-2 Ab-3 Ab-4 C-1 C-2	According to schedule
P-5	Breast tumors. Clinical presentation, diagnostics, methods of treatment	conduct surveys and physical examinations of patients, determine the tactics of examination and	Ab-1 Ab-2 Ab-3 Ab-4 C-1	According to schedule

		management of the patient in case of suspicion of malignancy, interpret the results of special research methods, formulate a preliminary clinical diagnosis in case of cancer, determine the tactics of cancer patients, demonstrate medical records	C-2	
P-6	Skin cancer and melanoma. Clinical presentation, diagnostics, methods of treatment. AIDS, related diseases and associated tumors	conduct surveys and physical examinations of patients, determine the tactics of examination and management of the patient in case of suspicion of malignancy, interpret the results of special research methods, formulate a preliminary clinical diagnosis in case of cancer, determine the tactics of cancer patients, demonstrate medical records	Ab-1 Ab-2 Ab-3 Ab-4 C-1 C-2	According to schedule
P-7	Kidney cancer, ureter and bladder cancer. Clinical presentation, diagnostics, methods of treatment.	conduct surveys and physical examinations of patients, determine the tactics of examination and management of the patient in case of suspicion of malignancy, interpret the results of special research methods, formulate a preliminary clinical diagnosis in case of cancer, determine the tactics of cancer patients, demonstrate medical records	Ab-1 Ab-2 Ab-3 Ab-4 C-1 C-2	According to schedule
P-8	Cervical, uterine and ovarian cancer. Clinical presentation, diagnostics, methods of treatment	conduct surveys and physical examinations of patients, determine the tactics of examination and	Ab-1 Ab-2 Ab-3 Ab-4 C-1	According to schedule

		management of the patient in case of suspicion of malignancy, interpret the results of special research methods, formulate a preliminary clinical diagnosis in case of cancer, determine the tactics of cancer patients, demonstrate medical records	C-2	
SWS-1	Cancer of oral cavity: curation of patients, gathering complaints, anamnesis, general examination of patient, palpation of peripheral lymph nodes. Writing medical history	Independent extracurricular work of students precedes their independent work in practical classes and involves their preparation for practical classes, guided by guidelines, and also includes the supervision of patients with writing a medical history and preparation for the final control of the module.	Kn-1 Kn-2 Kn-3 Kn-4 Kn-5 Kn-6 C-1 C-2	
SWS-2	Esophageal and gastric cancer: curation of patients, palpation of peripheral lymph nodes and organs of abdomen cavity, detecting free liquid in the abdominal cavity. Esophagoscopy and gastroscopy, introducing tube into stomach. Writing medical history.	Independent extracurricular work of students precedes their independent work in practical classes and involves their preparation for practical classes, guided by guidelines, and also includes the supervision of patients with writing a medical history and preparation for the final control of the module.	Kn-1 Kn-2 Kn-3 Kn-4 Kn-5 Kn-6 C-1 C-2	
SWS-3	Colon and rectum cancer. Livers and pancreas cancer: curation of patients, palpation of different parts of colon, finger rectal examination, RSS method, colonoscopy, Writing medical history	Independent extracurricular work of students precedes their independent work in practical classes and involves their preparation for practical classes, guided by guidelines, and also includes the supervision of patients with writing a medical history and	Kn-1 Kn-2 Kn-3 Kn-4 Kn-5 Kn-6 C-1 C-2	

		preparation for the final control of the module.		
SWS-4	Lung cancer, tumors of mediastinum and pleura: curation of patients, palpation of thorax and regional lymph nodes, auscultation and percussion of lungs, bronchoscopy, pleural puncture. Writing medical history.	Independent extracurricular work of students precedes their independent work in practical classes and involves their preparation for practical classes, guided by guidelines, and also includes the supervision of patients with writing a medical history and preparation for the final control of the module.	<i>Kn-1</i> <i>Kn-2</i> <i>Kn-3</i> <i>Kn-4</i> <i>Kn-5</i> <i>Kn-6</i> <i>C-1</i> <i>C-2</i>	
SWS-5	Breast cancer: curation of patients, palpation of breasts, thyroid gland and regional lymph nodes; biopsy of breast. Writing medical history.	Independent extracurricular work of students precedes their independent work in practical classes and involves their preparation for practical classes, guided by guidelines, and also includes the supervision of patients with writing a medical history and preparation for the final control of the module.	<i>Kn-1</i> <i>Kn-2</i> <i>Kn-3</i> <i>Kn-4</i> <i>Kn-5</i> <i>Kn-6</i> <i>C-1</i> <i>C-2</i>	
SWS-6	Skin cancer, melanoma, Hodgkin's disease: curation of patients, getting scabies from tumor. Writing medical history	Independent extracurricular work of students precedes their independent work in practical classes and involves their preparation for practical classes, guided by guidelines, and also includes the supervision of patients with writing a medical history and preparation for the final control of the module.	<i>Kn-1</i> <i>Kn-2</i> <i>Kn-3</i> <i>Kn-4</i> <i>Kn-5</i> <i>Kn-6</i> <i>C-1</i> <i>C-2</i>	
SWS-7	Urogenital cancer: curation of patients, getting a flush from genital organ, cystoscopy. Writing medical history.	Independent extracurricular work of students precedes their independent work in practical classes and involves their preparation for practical classes, guided by guidelines, and also includes the supervision	<i>Kn-1</i> <i>Kn-2</i> <i>Kn-3</i> <i>Kn-4</i> <i>Kn-5</i> <i>Kn-6</i> <i>C-1</i> <i>C-2</i>	

		of patients with writing a medical history and preparation for the final control of the module.		
SWS-8	Oncological gynecology: curation of patients. Writing medical history.	Independent extracurricular work of students precedes their independent work in practical classes and involves their preparation for practical classes, guided by guidelines, and also includes the supervision of patients with writing a medical history and preparation for the final control of the module.	Kn-1 Kn-2 Kn-3 Kn-4 Kn-5 Kn-6 C-1 C-2	

The following teaching methods are used in the process of studying the discipline "Oncology":

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

8. Verification of learning outcomes

Current control

is carried out during training sessions and aims to check the assimilation of students of educational material (it is necessary to describe the forms of current control during training sessions). Forms of assessment of current educational activities should be standardized and include control of theoretical and practical training. The final grade for the current educational activity is set on a 4-point (national) scale

Code of education results	Code of the type of lessons	Method of verifying learning outcomes	Enrollment criteria
Kn-1 Kn-2 Kn-3 Kn-4 Kn-5 Kn-6 C-1 C-2 AB-1 AB-2 AB-3 Ab-1 Ab-2 Ab-3 Ab-4	L-1, L-2, L-3, L-4, L-5, P-1 P-2 P-3 P-4 P-5 P-6 P-7 P-8	- <i>individual oral examination on theoretical issues that are included in the methodological developments on relevant topics;</i> - <i>test tasks;</i> - <i>solving situational problems;</i> - <i>ability to recognize specific nosological forms of cancer;</i>	the student has deeply and perfectly 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 of treatment and rehabilitation of a particular patient (taking into account age, comorbidities). 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 problems.
<i>Kn-1</i> <i>Kn-2</i> <i>Kn-3</i> <i>Kn-4</i> <i>Kn-5</i> <i>Kn-6</i> <i>C-1</i> <i>C-2</i>	SWS-1 SWS -2 SWS -3 SWS -4 SWS -5 SWS -6 SWS -7 SWS -8	- <i>registration of disease history protocols</i>	the student conducted a complete clinical examination of the patient, described its results, correctly assessed the general condition of the patient, clinical changes in the organs and systems, the results of laboratory and functional methods of examination, correctly determined the clinical diagnosis according to the classification of diseases, prescribed complete and correct treatment, correctly determined the prognosis and means of its prevention. The student is acquainted with the additional literature and correctly used it in writing a differential diagnosis, therapy, epicrisis. Demonstrated the skills of logical clinical thinking.
Final control			
General evaluation system	Participation in the work during the semester on a 200-point scale		
Evaluation scale	Traditional 4-point scale, multi-point (200-point) scale, ECTS rating scale		
Conditions of admission to the final control	The student attended all practical (laboratory, seminar) classes and received at least 120 points for current performance		
Type of final control	Methods of final control	Criteria	
Credit "Zalik"	All topics submitted for current control must be included. Grades from the 4-point scale are converted into points on a multi-point (200-point) scale in accordance with the Regulation "Criteria, rules and procedures for evaluating the results of	<i>The maximum number of points is 200.</i> <i>The minimum number of points is 120</i>	

students' learning activities"
<p><i>The calculation of the number of points</i> is based on the grades obtained by the student on a 4-point (national) scale during the study of the discipline, 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:</p> $x = \frac{AM \times 120}{5}$
9. Policies of course
<i>Indicates policies of academic integrity, program-specific policies relevant to the course</i>
10. Literature
<p>Required:</p> <ol style="list-style-type: none"> Білінський Б. Т. Медичні помилки в онкології. Львів: Афіша, 2013. – 324 с. <u>Онкологія</u>: підручник. – 3-тє видання, перероб. і доп. / Б. Т. Білінський, Н. А. Володько, А. І. Гнатишак та ін. За ред. проф. Б. Т. Білінського. – К.: Здоров'я, 2007. – 532 с. Онкологія. Вибрані лекції для студентів і лікарів / За ред. В.Ф. Чехуна. – Київ: Здоров'я України, 2010. – 768 с. Онкологія: навчальний посібник для студентів вищих медичних навчальних закладів IV рівня акредитації та лікарів-інтернів / І. Б. Щепотін та ін.; за ред. проф. І. Б. Щепотіна. - Київ : МОРІОН, 2015. – 383 с. Онкологія: підручник / Г. В. Бондар, Ю. В. Думанський, О. Ю. Попович та ін. – К.: ВСВ «Медицина», 2013. – 544 с. Савран В.Р. Рак молочної залози.- Львів.-2019. – 219 с. CancerMedicine – вільний доступ на www.ncbi.nih.gov (далі – EnterPubMed, далі – SearchBooks – CancerMedicine). Vincent T. Devita, Jr. SamuelHellman, Steven A. Rosenberg. CANCER. PrinciplesandpracticeofOncology. 6th Edition./ CD-R/ Availableat: http://www.lwwoncology.com/Textbook/Toc.aspx?id=11000 <p>Additional:</p> <ol style="list-style-type: none"> Радіологія (Променева діагностика та променева терапія.) / За заг. ред. М. М. Ткаченка. К.: Книга плюс, 2011. – 719 с. Савран В. Р. Рак молочної залози: підручник з онкології. Львів, 2019. – 222 с. TNM-класифікація, 7-ме видання. Фецич Т. Г., Сліпецький Р. Р. / за загальною редакцією д.м.н., проф.. Фецича Т. Г. – 2014. – 169 с.
11. Equipment, material and technical software of discipline/ course
Tables, diagrams, models, slide projector, multimedia projector, Misa distance learning platform
12. Additional information
<p><i>All other information important for the student, which is not included in the standard description, for example, contact details of the person responsible for the educational process at the department, information about the scientific circle of the department, information about routes, information about the need to equip themselves with occupational safety; information about the place of classes; links to website / department pages, etc.</i></p>

Compilers of syllabus

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Acting head of department

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