Appendix No. 1.5 to the Resolution No. 7/2023 of the Rector of the University of Rzeszów

SYLLABUS

Concerning the cycle of education **2022-2028**

Academic year **2026/2027**

1. BASIC COURSE/MODULE INFORMATION

Course/Module title	**Oncology**
Course/Module code *	**Onk/E**
Faculty (name of the unit offering the field of study)	**Medical College of Rzeszów University**
Name of the unit running the course	**Department of Oncology, Radiation Therapy and Translational Medicine**
Field of study	**medical study**
Qualification level	**uniform master's studies**
Profile	**practical**
Study mode	**stationary**
Year/semester of study	**5th year, semester 9th and 10th**
Type of course	**obligatory**
Teaching language	**English**
Coordinator	**Dr hab.n.med.Tomasz Kubiatowski**
First and Last Name of the Teacher	**Dr hab.n.med. Tomasz Kubiatowski**

**** - as agreed at the faculty***

1.1. Learning format – number of hours and ECTS credits

Semester (nr)	Lecture	Labs	Conversation	Laboratory	Sem.	Practical	Other	**Number of ECTS points**
9	15	10	-	-	10	-	-	2
10	15	15	-	-	10	-	-	2

1.2. COURSE DELIVERY METHODS

X CONDUCTED IN A TRADITIONAL WAY

X INVOLVING DISTANCE EDUCATION METHODS AND TECHNIQUES

1.3 COURSE/MODULE ASSESSMENT (EXAM, PASS WITH A GRADE, PASS WITHOUT A GRADE)

- SEMESTER 9, LECTURE - PASS WITHOUT GRADE

- SEMESTER 9, SEMINAR - PASS WITH GRADE

- SEMESTER 9, EXERCISES - PASS WITH GRADE

- SEMESTER 10, LECTURE - PASS WITHOUT GRADE

- SEMESTER 10, SEMINAR - PASS WITH GRADE
- SEMESTER 10, EXERCISES - PASS WITH GRADE

2. PREREQUISITES

knowledge in the field of: anatomy, physiology, molecular biology, pathophysiology, basic immunology, general and clinical genetics, medical psychology, computer science and biostatistics, hygiene and epidemiology, pathomorphology, introduction to internal diseases, pharmacology, imaging diagnostics with elements of nuclear medicine, laboratory diagnostics and introduction to oncology

3. OBJECTIVES, LEARNING OUTCOMES, COURSE CONTENT, AND INSTRUCTIONAL METHODS

3.1 Course/Module objectives

C1	Familiarize students with the epidemiology of cancer, the importance of genetic and environmental factors in the development of cancer, and the molecular mechanisms of carcinogenesis.
C2	Formation of skills in so-called oncological vigilance with special attention to early symptoms (so-called heraldic symptoms), primary and secondary prevention of cancer, and promotion of pro-health behavior.
C3	To familiarize students with: (i) the principles of diagnosis and assessment of the stage of cancer and the importance of these parameters in the choice of therapeutic management, (ii) the methods of oncological treatment used, including combined treatment), (iii) assessment of response to treatment and with the long-term effects of oncological treatment.
C4	To impart knowledge of the diagnostic and therapeutic process in the most common cancers and the principles of pain management.
C5	Familiarize students with the diagnostic and therapeutic management of the most common problems of palliative medicine (i.e., treatment of the most common somatic symptoms, management of cancer cachexia, and the most common emergencies).

3.2 Course/Module Learning Outcomes (to be completed by the coordinator)

EK (THE EFFECT OF EDUCATION)	THE CONTENT OF THE LEARNING EFFECT DEFINED FOR THE SUBJECT (MODULE)	REFERENCE TO DIRECTIONAL EFFECTS (KEK)
EK_01	Knows the environmental and epidemiological conditions of the most common diseases	E.W1.
EK_02	Knows the environmental and epidemiological conditions of the most common human cancers	E.W23.
EK_03	Knows the basics of early detection of cancer and the principles of screening in oncology	E.W24.
EK_04	Knows the possibilities of modern cancer therapy (including multimodal therapy), the prospects of cell and gene therapies and their adverse effects	E.W25.
EK_05	Knows the principles of combination therapies in oncology, algorithms of diagnostic and therapeutic management in the most common human malignancies	E.W26.
EK_06	Knows and understands the causes, symptoms, principles of diagnosis and therapeutic management of the most common problems of palliative medicine, including: (a) symptomatic treatment of the most common somatic symptoms, (b) management of cancer cachexia and prevention and treatment of pressure sores, (c) the most common emergencies in palliative medicine;	E.W27.
EK_07	Knows the principles of palliative management of the patient in terminal condition	E.W28.
EK_08	Knows the principles of pain management, including cancer pain and chronic pain	E.W29.
	In terms of skills, the student is able to:	
EK_09	Conduct a medical interview with an adult patient;	E.U1.
EK_10	Perform a complete and focused physical examination of an adult patient;	E.U3.
EK_11	Assess the patient's general condition, state of consciousness and awareness,	E.U7.
EK_12	plans diagnostic, therapeutic and preventive procedures	E.U16.
EK_13	Propose individualization of existing therapeutic guidelines and other treatments in the face of ineffectiveness or contraindications to standard therapy;	E.U18.
EK_14	Recognizes conditions in which the patient's life expectancy, functional status or preferences limit the management of the disease-specific guidelines	E.U21.
EK_15	interpret the results of laboratory tests and identify the causes of deviations from the norm;	E.U24.

EK_16	apply nutritional treatment, including enteral and parenteral nutrition	E.U25.
EK_17	Recognize the patient's agony and determine his death;	E.U37.
EK_18	Knows how to keep a patient's medical records.	E.U38.
	In terms of social competence, the student:	
EK_19	Is ready to establish and maintain a deep and respectful contact with the patient, and show understanding of worldview and cultural differences;	K.01.
EK_20	Is willing to be guided by the welfare of the patient;	K.02.
EK_21	Respects medical confidentiality and patient rights	K.03.
EK_22	Is willing to take action towards the patient on the basis of ethical principles, with awareness of the social conditions and limitations of the disease;	K.04.
EK_23	Is ready to recognize and acknowledge his own limitations and make self-assessments of deficits and educational needs;	K.05.
EK_24	Is ready to promote health-oriented behavior;	K.06.
EK_25	Is ready to use objective sources of information;	K.07.
EK_26	Is ready to formulate conclusions from his own measurements or observations;	K.08.
EK_27	Is ready to implement the principles of professional camaraderie and cooperation in a team of professionals, including with representatives of other medical professions, including in a multicultural and multinational environment;	K.09.
EK_28	Is ready to formulate opinions on various aspects of professional activities;	K.10.
EK_29	Is ready to accept the responsibility associated with decisions made in the course of professional activities, including in terms of the safety of themselves and others.	K.11.

3.3 Course content (to be completed by the coordinator)

A. Lectures

Content
Cancer epidemiology and primary and secondary prevention.
Molecular mechanisms of carcinogenesis and cancer progression. The role of environmental and genetic factors in cancer development.
Biological features of the tumor affecting the targeting of the choice of diagnostic and therapeutic methods used in oncology.
Strategies and methods of cancer treatment, including radical treatment, palliative care, supportive treatment
The rationale for the use of various modalities (surgery, radiotherapy, chemotherapy, hormone therapy, molecular targeted therapy, immunotherapy, gene and cell therapies) in the treatment of cancer and their characteristics.
Combination treatment - consideration of multidisciplinarity, theoretical rationale, mode of application and clinical effects using the most common cancers as examples.
Effects of anticancer treatment (taking into account the time of development, the method of treatment used and organ localization) - therapeutic options and prevention.

Supportive treatment and prevention of complications used in cancer patients.
Principles of pain management in cancer patients.
Oncological problems in selected clinical situations (including cancers in pregnant women, secondary cancers). Promotion of health-promoting behavior

B. Classes, laboratories, seminars, practical classes

Content
Seminars
Identification of groups at increased risk of cancer - factors environmental and genetic predisposition
Emergency conditions in oncology and palliative medicine (pathomechanism, diagnosis and therapeutic management)
Characteristics, prognostic factors and treatment outcomes of selected cancers with different organ localization: 1) lung cancers, 2) breast cancers, 3) cancers of the head and neck area, 4) cancers of the gastrointestinal tract 5) gynecological cancers, 6) urological cancers, 7) skin cancers, 8) cancers of soft tissues and bones, 9) tumors of the central nervous system, 10) tumors of the lymphatic system
Pathomechanism, anatomical localization and therapeutic management of distant metastases.
Supportive treatment and prevention of late effects of cancer treatment
The role of physicians in promoting health-seeking behavior and early detection of cancer.
Labs
Organizational and introductory classes. Getting students acquainted with the issues and organization of classes and the criteria for passing, specificity of subjective and physical examination in oncology, principles of keeping medical records, the way of informing the patient about the diagnosis, prognosis and proposed treatment
Radical oncological treatment - methods, clinical rationale, fundamentals and principles of management, side effects of radiotherapy and systemic treatment - prevention and treatment (clinical examples).
Palliative treatment, pain management and management of emergencies and cancer cachexia.
Management of the terminal stage of cancer.
Lung cancer - subject and object examination, prevention options, diagnosis and treatment methods (including molecular diagnosis and molecular targeted therapy) and palliative treatment.
Breast cancer - diagnosis, importance of prevention, combined treatment (including treatment with breast conservation), prognostic and predictive factors.
Gastrointestinal cancers - the role of combined treatment and perioperative management in rectal cancer patients.
Gynecological cancers (cervical cancer, endometrial cancer, ovarian cancer, vulvar cancer) - etiopathogenesis, course, prognosis, prevention options.

Urological cancers - bladder cancer (example of multi-modular treatment), prostate cancer in men (prognostic factors).
Tumors of the head and neck area - risk factors, modern imaging diagnostics, surgical and conservative treatment options, prevention.

3.4 METHODS OF INSTRUCTION

Lecture: lecture with multimedia presentation.

Seminars: multimedia presentation, case study, discussion.

Labs: theoretical introduction on the specifics of the management of the oncological patient, participation in planning the diagnostic and therapeutic process, practical exercises, analysis of of cases, demonstration, use of professional literature

4. ASSESSMENT TECHNIQUES AND CRITERIA

4.1 METHODS OF EVALUATING LEARNING OUTCOMES

SYMBOL OF EFFECT	METHODS OF ASSESSMENT OF LEARNING OUTCOMES (EG.: TESTS, ORAL EXAMS, WRITTEN EXAMS, PROJECT REPORTS, OBSERVATIONS DURING CLASSES)	FORM OF CLASSES
EK_ 01 EK_02 EK_03 EK_04 EK_05 EK_06 EK_07 EK_08	FINAL ORAL OR WRITTEN EXAM	LECTURE
EK_ 09 – EK_29	PRACTICAL CREDIT - CASE ANALYSIS	LABS
EK_ 01 EK_02 EK_03 EK_04 EK_05 EK_06 EK_07 EK_08	WRITTEN OR ORAL COLLOQUIUM ON A GIVEN BATCH OF MATERIAL	SEMINARS

4.2 COURSE ASSESSMENT CRITERIA

Detailed information on the rules of taking classes is contained in the Regulations of clinical classes, with which each student is required to familiarize himself before the start of the classes

Attendance at all forms of classes is mandatory.

Lectures:

1. participation and activity in class

2. written credit - multiple-choice test (MCQ) taken after last lecture

3. credit requirement - attendance in class

Seminars

1. full participation and activity in classes

2. written assessment - multiple-choice test (MCQs) taken after last lecture

3. credit requirement: attendance and activity during classes

Exercises

1. full attendance and activity in class

2. oral credit for evaluation
3. condition for passing - active attendance during classes

Rating range: 2.0 - 5.0

Evaluation criteria:

5.0 - demonstrates knowledge of educational content at a level of 93%-100%

4.5 - demonstrates knowledge of educational content at the level of 85%-92%

4.0 - demonstrates knowledge of educational content at the level of 77%-84%

3.5 - demonstrates knowledge of educational content at a level of 69%-76%

3.0 - demonstrates knowledge of educational content at a level of 60%-68%

2.0 - demonstrates knowledge of educational content below 60%

Skills assessment

5.0 - the student actively participates in classes, is well prepared, very well knows the basics of early detection of cancer and principles of screening in oncology, correctly plans diagnostic, therapeutic and prophylactic proceedings

4.5 - the student actively participates in classes, knows well the basics of early detection of cancer and the principles of screening in oncology, correctly plans diagnostic, therapeutic and prophylactic proceedings

4.0 - the student actively participates in classes, is corrected, well knows the basics of early detection of cancer and the principles of screening in oncology, usually correctly plans diagnostic, therapeutic and prophylactic proceedings

3.5 - the student participates in classes, his range of preparation does not allow a comprehensive presentation of the problem discussed, sufficiently knows the basics of early detection of cancer and principles of screening in oncology, plans diagnostic, therapeutic and prophylactic proceedings, is often corrected

3.0 - the student participates in classes, sufficiently knows the basics of early detection of cancer and the principles of screening tests in oncology, plans diagnostic, therapeutic and prophylactic proceedings, however, often makes mistakes

2.0 - the student passively participates in classes, statements are factually incorrect, does not sufficiently know the basics of early detection of cancer and principles of screening in oncology, plans diagnostic, therapeutic and prophylactic proceedings incorrectly, is often corrected

Assessment of social competence:

- continuous evaluation by the teacher (observation)

- discussion during class
- opinions of patients, colleagues

5. Total student workload needed to achieve the intended learning outcomes – number of hours and ECTS credits

Form of activity	Average number of hours to complete the activity
Hours from the study schedule	75
Other with the participation of an academic teacher (participation in consultations, exams)	5 hrs (2 hrs consultation participation, 3 hrs credit participation)
Non-contact hours - the student's own work (preparation for class, exam, writing a paper, etc.).	Preparation for classes - 15 hrs. Preparation for credit - 25 hrs.
TOTAL NUMBERS OF HOURS	120
TOTAL ECTS CREDITS	4

6. INTERNSHIPS RELATED TO THE COURSE/MODULE

NUMBER OF HOURS	-
RULES AND FORMS OF APPRENTICESHIP	-

7. Instructional materials

COMPULSORY LITERATURE: 1. **NEIL VASAN, MARIA I. CARLO (ED.). POCKET ONCOLOGY. 2ND EDITION; WOLTERS KLUWER, 2019. ISBN: 978-1-4963-9103-2. (PODRĘCZNIK DOSTĘPNY RÓWNIEŻ JAKO EBOOK – KINDLE ED.)**
ADDITIONAL LITERATURE:

APPROVED BY THE HEAD OF THE DEPARTMENT OR AN AUTHORISED PERSON