

**INTERNATIONAL HIGHER SCHOOL OF MEDICINE**  
**Department of Special Surgical Disciplines**

**SYLLABUS**

**Discipline Oncology**

2025-2025 academic year

for students of medical faculty

4th course 8th semester.

4 credits (120 h, including auditorial 72h, independent work –48h)

**Lecturer:**      **Name:** Lim E.F., PhD  
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Zoom: The Zoom link for each scheduled lecture will be provided directly by the lecturer. Distribution of the link will be carried out via the official student group communication channel.

**Venue:**  
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The Syllabus is considered  
at the meeting of the department of SSD  
Protocol № 1 dated 30.08 2025  
Head of the department [Signature]



**Course Objective:** to acquire knowledge of epidemiology, risk factors, symptoms and methods for diagnosing malignant and benign neoplasms, as well as the principles, skills and abilities of prevention and treatment of oncological diseases. After study of the discipline the student must:

**Knowledge:**

- The specifics of medical ethics in oncology.
- Causes and most common risk factors and biology of development of the most common oncological diseases.
- Indicators of biochemical and clinical studies confirming the diagnosis.
- Basic principles and methods of treatment of the most common oncological diseases.
- The main groups of environmental factors that have an adverse effect on public health

**Skill:**

- Comply with the rules of medical ethics in oncology and maintain confidentiality in dealing with cancer patients.
- Identify adverse factors that contribute to the development of cancer.
- Analyze the results of biochemical and clinical studies to highlight the main criteria that confirm the clinical diagnosis.
- Synthesize and analyze information about the principles and methods of treatment of the most common oncological diseases from the standpoint of evidence-based medicine.
- Provide practical advice on the treatment of the most common cancer diseases.
- Establish causal relationships of changes in health status from the impact of adverse factors.

**Attitude:**

- Skills in planning measures to eliminate the adverse effects of harmful factors and conditions.
- Skills of reasoned substantiation of clinical diagnosis.
- Skills in issuing practical recommendations for the treatment of the most common oncological diseases.
- Methodology for assessing the health status of various population groups.

**Pre-requisites:** anatomy, pathological anatomy, normal and pathological physiology, biochemistry, radiology, proppedtherapy, therapy.

**Post-requisites:** polyclinical surgery, family medicine, polyclinical therapy.

**THEMATIC PLAN OF LECTURES**

| № | Theme of lecture   | Hours | Date                  |
|---|--|-------|-----------------------|
| 1 | Introduction to Oncology. Theories of carcinogenesis. Pathogenesis. Basic principles of the classification of malignant tumors. Clinical syndromes in oncology. Basic principles of diagnosis and treatment. | 2     | According to schedule |
| 2 | Malignant tumors of the skin and melanoma. Precancerous diseases. Etiology, risk factors, classification, clinic, diagnosis, treatment, prevention, clinical examination, prognosis.                         | 2     | According to schedule |
| 3 | Lung Cancer. Precancerous diseases. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.  | 2     | According to schedule |
| 4 | Breast Tumors. Precancerous diseases. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.  | 2     | According to schedule |
| 5 | Esophageal and stomach cancer. Precancerous diseases. Etiology, risk factors, classification, clinical features, diagnosis, clinical examinations, treatment, prevention, prognosis.                         | 2     | According to schedule |
| 6 | Colon cancer. Rectal cancer. Precancerous diseases. Etiology, risk factors, classification, clinical features, clinical examination, diagnosis, treatment, prevention, prognosis.                            | 2     | According to schedule |
| 7 | Malignant tumors of the urinary system and male genital organs. Precancerous diseases.   | 2     | According to schedule |
| 8 | Malignant tumors of the female reproductive system. Precancerous diseases.   | 2     | According to schedule |

**THEMATIC PLAN OF PRACTICAL CLASSES**

| № | Theme of practical class | Hours | Date |
|---|--------------------------|-------|------|
|   | Unit №1.                 |       |      |

|         |  |   |                                      |
|---------|--|---|--------------------------------------|
| 1       | Patterns of the development of malignant neoplasms. Etiology, epidemiology. Classifications and stages of oncological diseases. Ways of preventing malignant neoplasms. Deontology in Oncology. Organization of the provision of oncological care. The main types of diagnostics and treatment in oncology. Paraneoplastic syndrome. Methods for the treatment of malignant neoplasms. The main types of diagnostics and treatment in oncology. Paraneoplastic syndrome. Methods for the treatment of malignant neoplasms. | 2 | According to schedule of each group  |
| 2       | Skin cancer. Precancerous diseases. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.<br>Melanoma. Precancerous diseases. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.  | 2 | According to schedule of each group  |
| 3       | Cancer of the tongue, oral mucosa, lower lip. Precancerous conditions. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.   | 2 | According to schedule of each group  |
| 4       | Laryngeal cancer. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.  | 2 | According to schedule of each group  |
| 5       | Modul №1.  | 2 | According to schedule for each group |
| Unit №2 |  |   |                                      |
| 6       | Thyroid Cancer. Precancerous diseases. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.   | 2 | According to schedule of each group  |
| 7       | Bone Cancer. Soft tissue sarcomas. Precancerous diseases. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.  | 2 | According to schedule of each group  |
| 8       | Lymphomas: Hodgkins disease, non-Hodgkins lymphomas. Precancerous diseases. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.  | 2 | According to schedule of each group  |
| 9       | Lung Cancer. Precancerous diseases. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.  | 2 | According to schedule of each group  |
| 10      | Lung Cancer. Precancerous diseases. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.  | 2 | According to schedule of each group  |
| 11      | Precancerous diseases and benign breast tumors. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.  | 2 | According to schedule of each group  |
| 12      | Breast Cancer. Precancerous diseases. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.  | 2 | According to schedule of each group  |
| 13      | Modul №2   | 2 | According to schedule of each group  |
| Unit №3 |  |   |                                      |
| 14      | Esophageal cancer. Etiology, risk factors, classification, clinical features, diagnosis, clinical examinations, treatment, prevention, prognosis.  | 2 | According to schedule of each group  |
| 15      | Stomach cancer. Precancerous diseases. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.   | 2 | According to schedule of each group  |

|    |   |   |                                      |
|----|---|---|--------------------------------------|
| 16 | Colon cancer. Etiology, risk factors, classification, clinical features, diagnosis, clinical examinations, treatment, prevention, prognosis.  | 2 | According to schedule of each group  |
| 17 | Rectal cancer. Etiology, risk factors, classification, clinical features, diagnosis, clinical examinations, treatment, prevention, prognosis.   | 2 | According to schedule of each group  |
| 18 | Cancer of the liver and biliary tract. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.                  | 2 | According to schedule of each group  |
| 19 | Cancer of the pancreas, duodenum. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.                       | 2 | According to schedule of each group  |
| 20 | Modul №3  | 2 | According to schedule of each group  |
| 21 | Kidney, bladder cancer. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.                                 | 2 | According to schedule of each group  |
| 22 | Prostate cancer. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.  | 2 | According to schedule of each group  |
| 23 | Testicular cancer, penile cancer. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.                       | 2 | According to schedule for each group |
| 24 | Cervical cancer. Etiology, risk factors, classification, clinical finding clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.                       | 2 | According to schedule of each group  |
| 25 | Ovarian cancer. Etiology, risk factors, classification, clinical features, diagnosis, treatment, prevention, clinical examination, prognosis.   | 2 | According to schedule of each group  |
| 26 | Trophoblastic disease. Etiology, clinical findings, diagnostics, treatment, prevention, clinical examination, prognosis.  | 2 | According to schedule of each group  |
| 27 | Cancer of the body of the uterus. Precancerous diseases. Etiology, risk factors, classification, clinical findings, diagnosis, treatment, prevention, clinical examination, prognosis | 2 | According to schedule of each group  |
| 28 | Final   | 2 | According to schedule of each group  |

#### THEMATIC PLAN OF INDEPENDENT WORK OF STUDENTS

| Unit № | Theme of independent work  | Hours | Date                                |
|--------|--|-------|-------------------------------------|
| 1      | <ul style="list-style-type: none"> <li>To study the function of melanocytes and types of skin biopsy.</li> <li>Make a table of differential diagnosis of squamous and basal cell carcinoma.</li> <li>To study the types of surgical treatment of cancer of the tongue.</li> <li>Find information on the epidemiology of cancer (skin and tongue and mouth cancer) in India/Pakistan</li> <li>On the model of different variants of skin cancer to carry out differential diagnostics.</li> </ul> | 8     | According to schedule of each group |
| 2      | <ul style="list-style-type: none"> <li>Review radioactive iodine testing and iodine therapy for thyroid cancer.</li> <li>Review the lung cancer screening program.</li> <li>Make a table of differential diagnosis of benign and malignant tumors of the breast.</li> </ul>  | 12    | According to schedule of each group |

|   |  |    |                                     |
|---|--|----|-------------------------------------|
|   | <ul style="list-style-type: none"> <li>Practice palpation skills on the simulator for examining the mammary glands (normal, tumors of various sizes, shapes and densities. Tumors are represented by adenomas, cysts, malignant tumors and enlarged lymph nodes)</li> <li>Use the phantom of the mammary gland for puncture under ultrasound control to practice fine-needle aspiration biopsy, core-needle biopsy, vacuum biopsy.</li> <li></li> </ul>  |    |                                     |
| 3 | <ul style="list-style-type: none"> <li>Study and chart precancerous diseases of the esophagus, stomach, colon, and rectum.</li> <li>Make a table on the differential diagnosis of various types of jaundice.</li> <li>Study and make a table (indications and contraindications) for TARE and TACHE.</li> <li>On a pathological model of the esophagus, to study and conduct a differential diagnosis of GERD, Barrett's ulcer and esophageal cancer.</li> <li>On the model of gastric cancer to study the localization of tumors.</li> <li>At the complex for testing upper endoscopy, develop the skill of examining the esophagus and stomach (gastric ulcer, early stage of stomach cancer, polyps)</li> <li>Develop skills on the simulator to develop the skills of palpation, auscultation and percussion of the abdominal organs (hepatomegaly, intestinal obstruction, ascites)</li> <li>On the rectal tumor palpation simulator, perform a digital rectal examination (normal in men/women, pedunculated polyp, sessile polyp, exophytic polypoid cancer, circular cancer, endophytic cancer, ulcerative cancer, blunt cancer, polyposis, endophytic stenosing cancer)</li> <li>Study the appearance and anatomy of the stoma on the phantom of the body.</li> </ul> | 14 | According to schedule of each group |
| 4 | <ul style="list-style-type: none"> <li>Repeat the topography of the bladder in men and women.</li> <li>Explore radionuclide therapy for prostate cancer.</li> <li>Learn methods for cervical screening.</li> <li>To study the prevalence of malignant tumors of the urinary and reproductive systems in the Republic of India/Pakistan.</li> <li>On the simulator for examination of the prostate work out the skills of a digital examination of the prostate (normal, hyperplasia, carcinoma)</li> <li>On the simulator of the male pelvis, work out the skills of examining the external genital organs (normal, testicular tumors and penile cancer, hydrocele)</li> <li>On the simulator for examination of the cervix and taking PAP smears, practice the skills of external and internal examination, installation of gynecological mirrors and smear sampling techniques (normal cervix, dysplasia, cervix with carcinoma)</li> </ul>  | 14 | According to schedule of each group |

#### Recommended reading for the discipline:

##### 1. Basic:

- 1.1 Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11<sup>th</sup> edition. 2019
- 1.2 Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019
- 1.3 Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018
2. Additional:
  - 2.1 Sami Shousha Breast Pathology in Clinical Practice 2020
  - 2.2 Nancy Y.Lee., Jiade J.Lu, Suzanne Russo, Sarah Hoffe, Edward Kim Gastrointestinal Malignancies 2018
  - 2.3 Dongyou Liu Handbook of tumor syndromes 2020

### Grading policy and procedures for all types of work

For the period of studying the discipline, the student gains points for the relevant parameters (per unit):

current score - 40 points

independent work - 20 points

control score (final assessment of knowledge per unit) - 40 points

Maximum score - 100 (40+20+40)

### Grading system for student's achievements

| Grading criteria per discipline    |   |   |  |  |
|------------------------------------|---|---|--|--|
| Maximum score                      | Intervals   |   |  |  |
|                                    | «unsatisfactory»  | «satisfactory»  | «good»   | «excellent»  |
| Current control - 40               | 0-23  | 24-30   | 31-35  | 36-40  |
| Interval description               | Significant gaps in knowledge of the basic educational material are revealed, fundamental mistakes are made when answering questions.     | Knowledge of the educational material in the amount necessary for the further development of the discipline, familiar with the main literature recommended for the lesson. The student makes mistakes, but has the necessary knowledge to eliminate them under the guidance of the teacher. | Full knowledge of the educational material, the main literature recommended for the lesson. The student shows the systemic nature of knowledge in the discipline and is able to independently replenish and update in the course of further educational work and professional activity | Comprehensive, systematic and deep knowledge of educational material, basic and additional literature, the relationship of the basic concepts of the discipline in their meaning for the acquired profession. The manifestation of creativity in the understanding, presentation and use of educational and program material |
| Independent work - 20              | 0-11  | 12-15   | 16-17  | 18-20  |
| Interval description               | the task is not completed, gross errors are made when answering the teacher's questions, there are no student ready-made schemes, charts. | if the student finds it difficult to answer, makes mistakes and inaccuracies.   | Full knowledge of the educational material, the main literature recommended for the lesson. The student shows the systemic nature of knowledge in the discipline and is able to independently replenish and update in the course of further educational work and professional activity | Comprehensive, systematic and deep knowledge of educational material, basic and additional literature, the relationship of the basic concepts of the discipline in their meaning for the acquired profession. The manifestation of creativity in the understanding, presentation and use of educational and program material |
| Control work (module) - 40         | 0-23  | 24-30   | 31-35  | 36-40  |
| The presence of correct answers to | Correct answers are given to less than ½ questions,   | Correct answers are given to 2/3 questions, 2/3 tasks are completed   | All questions have been answered correctly, all  | All questions have been answered correctly, all tasks have been completed  |

|   |  |  |                           |                              |
|---|--|--|---------------------------|------------------------------|
| questions to the situational task                       | less than ½ tasks have been completed        |  | tasks have been completed |                              |
| Completeness and consistency of presentation of answers | The answers are short, undeveloped, "random" | Most (2/3) answers are short, not detailed | Sufficient in 2/3 answers | Fairly high in all responses |

### **Student knowledge evaluation system in class**

#### **Determination of the rating during testing is carried out as follows:**

Testing of each student is carried out according to test items, randomly generated from the discipline questions. The maximum number of points is 40 points.

Each task has one correct answer.

The passing score is 60%, the number of points scored is determined according to the scheme:

60-75% of correct answers are satisfactory;

76-89% of correct answers - good;

90-100% correct answers - excellent;

less than 60% of correct answers - unsatisfactory.

#### **Conduct Policy: (lateness, absence, behavior in the auditorium, late submission of work).**

- Punctuality and completion of tasks.
  - Mandatory attendance of classes.
  - Attending class in a clean medical uniform.
  - Eliminating conversations on a cell phone in the classroom.
  - Active participation in the learning process.
  - Doing homework on time.
  - Academic detention at the time specified by the teacher.
- For violations of the Conduct Policy, the total points for discipline might be reduced to 1-5 points.

#### **Academic Ethics Policy.**

- Be tolerant, respect the opinions of others.
- Formulate objections in the correct form.
- Constructively support feedback in all classes.
- Plagiarism and other forms of dishonest work are unacceptable. Plagiarism includes the following: the absence of references when using printed and electronic materials, quotes, thoughts and works of other authors or students.
- Prompting and cheating during tests, exams, classes is unacceptable as well as passing an exam for another student, unauthorized copying of materials.

For violations of the Academic Ethics Policy, the total points for the discipline may be reduced to 1-5 points.

#### **Guidelines for the lessons of the discipline**

##### **Unit №1**

#### **Key questions covered in lesson 1.**

- 1 The concept of the subject "Oncology".
- 2 Basic properties of a malignant cell.
- 3 Theories of carcinogenesis of malignant tumors.
- 4 Basic standardized indicators (morbidity, mortality, one-year mortality, survival, disease-free survival).
- 5 Principles of the International classification of malignant tumors according to the TNM system and the stage of diseases.
- 6 Clinical syndromes in oncology.
- 7 Types of prevention in oncology.
- 8 The concept of deontology in oncology and its types.
9. Algorithm for diagnosing patients with malignant neoplasms.
10. The main methods of treatment in oncology (surgical, radiation, medicinal)
11. Types of treatment in oncology (combined, complex treatment).
12. The concept of radical, palliative and symptomatic treatment of cancer patients.

13. Types of drug therapy (chemotherapy, immunotherapy, hormone therapy, targeted therapy).
14. Types of radiation therapy (remote, brachytherapy)
15. The concept of paraneoplastic syndrome. Types of paraneoplastic syndromes.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11<sup>th</sup> edition. 2019 p. 197-203; 238-246; 252-270; 288-293; 297-307; 311-327; 331-338; 343-349; 350-351; 357-387; 733-749; 848-870; 973-982;
- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019 p. 22-23;

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 411-450; 456-470; 478-489; 503-516; 520-530; 535-548; 571-582; 668-680; 705-728; 755-778; 959-970;
- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p.26-31; 31-40;
- [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, p. 83-87; 226-237;

**Key questions covered in lesson 2.**

1. The main anatomical and physiological features of the structure of the skin.
2. Epidemiology of skin cancer.
3. Etiology. Skin cancer risk factors.
4. Histological forms of skin cancer.
5. Features of growth and metastasis of skin cancer.
6. Stages of skin cancer. TNM classification.
7. Clinical picture of skin cancer.
8. Methods for diagnosing skin cancer.
9. Differential diagnosis of skin cancer.
10. Treatment methods for skin cancer.
11. Prognosis for skin cancer.
12. Epidemiology of melanoma.
13. Etiology. risk factors for melanoma.
14. Precancerous diseases, types of nevi.
15. Features of growth and metastasis of melanoma.
16. Stages of melanoma. Classification according to Clark and Breslow.
17. Clinical picture of melanoma.
18. Methods for diagnosing melanoma, features of taking a biopsy.
19. Differential diagnosis of melanoma.
20. Melanoma treatment methods.
21. Prognosis for melanoma.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 2614-2649;
- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p.522-527;
- [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, p.390-403; 406-416;
- [2.3] Dongyou Liu Handbook of tumor syndromes 2020, p.323-340;

**Recommended reading for the lesson; serial number is indicated in square brackets (Melanoma)**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p.2659-2669;
- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p.484-521;
- [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, p.242-386;
- [2.3] Dongyou Liu Handbook of tumor syndromes 2020, p.323-340;

**Key questions covered in lesson 3.**

1. The main anatomical and physiological features of the structure of the tongue, lower lip, oral mucosa.
2. Epidemiology of cancer of the tongue, lower lip and oral mucosa.



3. Etiology. Risk factors for developing cancer of the tongue, lower lip and oral cavity.
4. Precancerous diseases.
5. Features of growth and metastasis in cancer of the root of the tongue.
6. Histological forms of cancer of the tongue, lower lip and oral cavity.
7. Stages of cancer of the tongue, lower lip and oral cavity. TNM classification.
8. Clinical features of cancer of the tongue, lower lip and oral cavity.
9. Methods for diagnosing cancer of the tongue, lower lip and oral cavity.
10. Differential diagnosis of cancer of the tongue, lower lip and oral cavity.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11<sup>th</sup> edition. 2019, p.1022-1030;  
 [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p.22-43;  
 [2.3] Dongyou Liu Handbook of tumor syndromes 2020, p.960-991.

**Key questions covered in lesson 4.**

1. The main anatomical and physiological features of the structure of the larynx.
2. Epidemiology of cancer of the larynx.
3. Etiology. Risk factors for developing cancer of the larynx.
4. Stages of cancer of the larynx. TNM classification.
5. Clinical features of laryngeal cancer according to localization of tumor.
6. Methods for diagnosing cancer of larynx.
7. Differential diagnosis with other types of cancer which have the similar clinical features.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11<sup>th</sup> edition. 2019, p.1041-1050;  
 [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p.46-49;

**Key questions covered in lesson 5.**

**Passing of Unit question (maximum score-40):**

1. The concept of the subject "Oncology".
2. Basic properties of a malignant cell.
3. Theories of carcinogenesis of malignant tumors.
4. Basic standardized indicators (morbidity, mortality, one-year mortality, survival, unprecedented survival).
5. Principles of the International TNM Classification of Malignant Tumors and Disease Stage.
6. Clinical syndromes in oncology.
7. Types of prevention in oncology.
8. The concept of deontology in oncology and its types.
9. Algorithm for the diagnosis of patients with malignant neoplasms.
10. The main methods of treatment in oncology (surgical, radiation, medicinal)
11. Types of treatment in oncology (combined, complex treatment).
12. The concept of radical, palliative and symptomatic treatment of cancer patients.
13. Types of drug therapy (chemotherapy, immunotherapy, hormone therapy, targeted therapy).
14. Types of radiation therapy (distance therapy, brachytherapy)
15. The concept of paraneoplastic syndrome. Types of paraneoplastic syndromes.
16. The main anatomical and physiological features of the structure of the skin.
17. Epidemiology of skin cancer.
18. Etiology. Skin cancer risk factors.
19. Histological forms of skin cancer.
20. Features of growth and metastasis of skin cancer.
21. Stages of skin cancer. TNM classification.
22. The clinical picture of skin cancer.
23. Methods for diagnosing skin cancer.
24. Epidemiology of melanoma.
25. Etiology. risk factors for melanoma.
26. Precancerous diseases, types of nevi.
27. Features of growth and metastasis of melanoma.
28. Stages of melanoma. Classification according to Clark and Breslow.
29. Clinical picture of melanoma.
30. Methods for diagnosing melanoma, features of taking a biopsy.
31. Differential diagnosis of melanoma.

32. Melanoma treatment methods.
33. Prognosis for melanoma.
34. The main anatomical and physiological features of the structure of the tongue, lower lip, oral mucosa.
35. Epidemiology of cancer of the tongue, lower lip and oral mucosa.
36. Etiology. Risk factors for developing cancer of the tongue, lower lip and oral cavity.
37. Precancerous diseases.
38. Features of growth and metastasis in cancer of the root of the tongue.
39. Histological forms of cancer of the tongue, lower lip and oral cavity.
40. Stages of cancer of the tongue, lower lip and oral cavity. TNM classification.
41. Clinical features of cancer of the tongue, lower lip and oral cavity.
42. Methods for diagnosing cancer of the tongue, lower lip and oral cavity.
43. Differential diagnosis of cancer of the tongue, lower lip and oral cavity.
44. The main anatomical and physiological features of the structure of the larynx.
45. Epidemiology of cancer of the larynx.
46. Etiology. Risk factors for developing cancer of the larynx.
47. Stages of cancer of the larynx. TNM classification.
48. Clinical features of laryngeal cancer according to localization of tumor.
49. Methods for diagnosing cancer of larynx.
50. Differential diagnosis with other types of cancer which have the similar clinical features.

## **Unit №2**

### **Key questions covered in lesson 1**

1. Definition Thyroid Cancer.
2. Epidemiology Thyroid Cancer.
3. Etiology and Risk Factors Thyroid Cancer.
4. Classification of thyroid cancer.
5. Clinico – anatomical Classification Thyroid Cancer
6. Histology Classification Thyroid Cancer.
7. Symptoms and diagnostic Thyroid Cancer.
8. Metastasis Thyroid Cancer.
9. Stages Thyroid Cancer.
10. Diagnostic Thyroid Cancer.
11. Treatment Thyroid Cancer.
12. Prognosis Thyroid Cancer.

### **Recommended reading for the lesson; serial number is indicated in square brackets.**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11<sup>th</sup> edition. 2019, p 80-89.
- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p.762-774.
- [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, p. 34-38.
- [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, p. 567-584.
- [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018,p .628-651.

### **Key questions covered in lesson 2**

1. Definition Bone Cancer and Soft tissue sarcomas.
2. Epidemiology Bone Cancer and Soft tissue sarcomas.
3. Etiology and Risk Factors Bone Cancer and Soft tissue sarcomas.
4. Classification . Bone Cancer and Soft tissue sarcomas.
5. Classification Bone Cancer and Soft tissue sarcomas.
6. Symptoms Bone Cancer and Soft tissue sarcomas.
7. Diagnostic Bone Cancer and Soft tissue sarcomas.
8. Metastasis Bone Cancer and Soft tissue sarcomas.
9. Stages Bone Cancer and Soft tissue sarcomas.
10. Treatment . Bone Cancer and Soft tissue sarcomas.
11. Prognosis . Bone Cancer and Soft tissue sarcomas.



**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 87-90.
- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p.471-482.
- [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, p. 24-30.
- [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, p.539-565.

**Key questions covered in lesson 3**

1. Definition Hodgkins disease, non-Hodgkins lymphomas.
2. Epidimiology Hodgkins disease, non-Hodgkins lymphomas.
3. Etiology and Risk Factors Hodgkins disease, non-Hodgkins lymphomas.
4. Classification .Hodgkins disease, non-Hodgkins lymphomas.
5. Symptoms Hodgkins disease, non-Hodgkins lymphomas.
6. Diagnostic Hodgkins disease, non-Hodgkins lymphomas.
7. Metastasis Hodgkins disease, non-Hodgkins lymphomas.
8. Stages Hodgkins disease, non-Hodgkins lymphomas.
9. Treatment Hodgkins disease, non-Hodgkins lymphomas.
10. Prognosis Hodgkins disease, non-Hodgkins lymphomas.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 635-669.
- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 670-689.

**Key questions covered in lesson 4**

1. Definition Lung Cancer.
2. Epidimiology Lung Cancer.
3. Etiology and Risk Factors Lung Cancer.
4. Classification Lung Cancer.
5. Symptoms Lung Cancer.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p.47-49.
- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 93-104.
- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019 c. 60-92

**Key questions covered in lesson 5**

1. Symptoms Lung Cancer.
2. Paraneoplastic signs of lung cancer.
3. Diagnostics Lung Cancer.
4. Treatment Lung Cancer.
5. Dispensary treatment and Prevention Lung Cancer.
6. Prognosis of Lung Cancer.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p.47-49.
- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 93-104.
- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019 c. 60-92

**Key questions covered in lesson 6**

1. Definition Precancerous diseases and benign breast tumors.
2. Epidimiology Precancerous diseases and benign breast tumors.

3. Etiology and Risk Factors Precancerous diseases and benign breast tumors.
4. Classification Precancerous diseases and benign breast tumors.
5. Symptoms Precancerous diseases and benign breast tumors.
6. Diagnostics Precancerous diseases and benign breast tumors.
7. Treatment Precancerous diseases and benign breast tumors.
8. Dispensary treatment and Prevention Precancerous diseases and benign breast tumors.
9. Prognosis Precancerous diseases and benign breast tumors.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019p.2242 - 2261.  
 [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 246 – 310.  
 [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, p.1122 - 1320.

[2.1] Sami Shousha Breast Pathology in Clinical Practice 2020

**Key questions covered in lesson 7**

1. Definition Breast Cancer .
2. Epidemiology Breast Cancer.
3. Etiology and Risk Factors Breast Cancer .
4. Classification Breast Cancer.
5. Symptoms Breast Cancer.
6. Diagnostics Breast Cancer.
7. Treatment Breast Cancer.
8. Dispensary treatment and Prevention Breast Cancer.
9. Prognosis Breast Cancer.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 2242 - 2261.  
 [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019p. 2261 - 2340.  
 [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 246 - 310  
 [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, p. 1122 - 1320.

**Key questions covered in lesson 8**

**Module №2 please overview full unit.**

**Unit №3**

**Key questions covered in lesson 1**

1. Clinical anatomy of the esophagus and stomach.
2. Etiology and risk factors for esophageal cancer.
3. Epidemiology of esophageal and stomach cancer.
4. Classification of esophageal cancer.
5. Symptoms of esophageal cancer.
6. Diagnosis of esophageal cancer.
7. Treatment of esophageal cancer.
8. Prevention of esophageal cancer.
9. Prognosis for esophageal cancer.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019p. 1307-1297  
 [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019p. 105-119  
 [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018p. 1415-1511  
 [2.2] Nancy Y.Lee., Jiade J.Lu, Suzanne Russo, Sarah Hoffe, Edward Kim Gastrointestinal Malignancies 2018p. 3-52  
 [2.3] Dongyou Liu Handbook of tumor syndromes 2020, p. 230-233



**Key questions covered in lesson 2**

1. Etiology and risk factors for stomach cancer.
2. Classification of stomach cancer.
3. Clinical features of stomach cancer.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 1386-1430
- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 122-150
- [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, p. 1515-1612
- [2.2] Nancy Y.Lee., Jiade J.Lu, Suzanne Russo, Sarah Hoffe, Edward Kim Gastrointestinal Malignancies 2018, p. 53-95
- [2.3] Dongyou Liu Handbook of tumor syndromes 2020, p. 111-211

**Key questions covered in lesson 3**

1. Diagnosis of stomach cancer.
2. Types of treatment of stomach cancer.
3. Prevention of stomach cancer.
4. Prognosis for stomach cancer.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 1386-1430
- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 122-150
- [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, p. 1515-1612
- [2.2] Nancy Y.Lee., Jiade J.Lu, Suzanne Russo, Sarah Hoffe, Edward Kim Gastrointestinal Malignancies 2018, p. 53-95
- [2.3] Dongyou Liu Handbook of tumor syndromes 2020, p. 111-21

**Key questions covered in lesson 4**

1. Clinical anatomy of colon
2. Etiology and risk factors for cancer of colon.
3. Epidemiology of colon cancer.
4. Classification of colon cancer.
5. Symptoms of colon cancer.
6. Diagnosis of colon cancer.
7. Treatment of colon cancer.
8. Prevention of colon cancer.
9. Prognosis for colon cancer.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 1634-1787
- [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 185-212; c. 228-243
- [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, p. 1666-1887
- [2.2] Nancy Y.Lee., Jiade J.Lu, Suzanne Russo, Sarah Hoffe, Edward Kim Gastrointestinal Malignancies 2018, p. 259-335
- [2.3] Dongyou Liu Handbook of tumor syndromes 2020, p. 115-211

**Key questions covered in lesson 5**

1. Clinical anatomy of rectum, relation of rectum in males and females
2. Etiology and risk factors for cancer of rectum.
3. Epidemiology of rectal cancer.
4. Classification of rectal cancer.
5. Symptoms of rectal cancer.
6. Diagnosis and differential diagnostic range of rectal cancer.
7. Treatment of rectal cancer.
8. Prevention of rectal cancer.

#### 9. Prognosis for rectal cancer.

#### **Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 1634-1787
- [1.2] ] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 185-212; c. 228-243
- [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, p.1666-1887
- [2.2] Nancy Y.Lee., Jiade J.Lu, Suzanne Russo, Sarah Hoffe, Edward Kim Gastrointestinal Malignancies 2018, p. 259-335
- [2.3] Dongyou Liu Handbook of tumor syndromes 2020, p. 115-211

#### **Key questions covered in lesson 5**

1. Clinical anatomy of liver and biliary tract.
2. Etiology and risk factors for cancer of liver and biliary tract.
3. Epidemiology of liver and bile biliary tract.
4. Classification of cancer of liver and bile biliary tract.
5. Symptoms of liver and bile biliary tract.
6. Diagnosis and differential diagnostic range of different types of jaundices .
7. Treatment of liver and bile biliary tract.
8. Prevention of liver and bile biliary tract.
9. Prognosis for cancer of liver and biliary tract.

#### **Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 1447-1608
- [1.2] ] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 151-225
- [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, 2027-2485 [2.2] Nancy Y.Lee., Jiade J.Lu, Suzanne Russo, Sarah Hoffe, Edward Kim Gastrointestinal Malignancies 2018, p. 97-225

#### **Key questions covered in lesson 6**

1. Clinical anatomy of pancreas, ampulla of Vater and duodenum.
2. Etiology and risk factors for cancer of pancreas, ampulla of Vater and duodenum.
3. Epidemiology of cancer of pancreas, ampulla of Vater and duodenum.
4. Classification of cancer of pancreas, ampulla of Vater and duodenum.
5. Symptoms of cancer of pancreas, ampulla of Vater and duodenum
6. Diagnosis and differential diagnostic range of different types of jaundices .
7. Treatment.
8. Prevention.
9. Prognosis.

#### **Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 1447-1608
- [1.2] ] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 151-225
- [1.3] Shane Y.Morita, Charles M.Balch, V.Suzanne Klimberg, Timothy M.Pawlik, Mitchell C.Posner, Kenneth K.Tanabe Textbook of complex general surgical oncology 2018, 2027-2485
- [2.2] Nancy Y.Lee., Jiade J.Lu, Suzanne Russo, Sarah Hoffe, Edward Kim Gastrointestinal Malignancies 2018, p. 97-225

### **Unit №4**

#### **Key questions covered in lesson 1**

1. Basic anatomical and physiological features of the structure and function of the kidneys.
2. Epidemiology of kidney cancer.
3. Etiology. Risk factors for kidney cancer.
4. Features of growth and metastasis in kidney cancer
5. Stages of kidney cancer. TNM classification.
6. Clinical presentation of kidney cancer.
7. Methods for the diagnosis of kidney cancer.



8. Differential diagnosis of kidney cancer.
9. Methods for the treatment of kidney cancer.
10. Prognosis for kidney cancer.
11. Basic anatomical and physiological features of the structure and function of the bladder.
12. Epidemiology of bladder cancer. Precancerous diseases of the bladder.
13. Etiology. Risk factors for bladder cancer.
14. Features of growth and metastasis in bladder cancer
15. Stages of bladder cancer. TNM classification.
16. Clinical presentation of bladder cancer.
17. Methods for the diagnosis of bladder cancer.
18. Differential diagnosis of bladder cancer.
19. Methods for the treatment of bladder cancer.
20. Prognosis for bladder cancer.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 1816-1826, 1827-1863, 1864-1877, 1878-1924;  
 [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 311- 335, 363-381;  
 [2.3] Dongyou Liu Handbook of tumor syndromes 2020, p. 219-306.

**Key questions covered in lesson 2**

1. The main anatomical and physiological features of the structure and function of the prostate gland.
2. Epidemiology of prostate cancer.
3. Etiology. Risk factors for prostate cancer.
4. Features of growth and metastasis in prostate cancer.
5. Stages of prostate cancer. TNM classification.
6. The clinical picture of prostate cancer.
7. Methods for diagnosing prostate cancer.
8. Differential diagnosis of prostate cancer.
9. Methods for the treatment of prostate cancer.
10. Prognosis for prostate cancer.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 1924-2027;  
 [1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 336- 362;  
 [2.3] Dongyou Liu Handbook of tumor syndromes 2020, p. 219-306.

**Key questions covered in lesson 3**

1. The main anatomical and physiological features of the structure and function of the testicles.
2. Epidemiology of testicular cancer.
3. Etiology. Testicular cancer risk factors.
4. Features of growth and metastasis in testicular cancer.
5. Stages of testicular cancer. TNM classification.
6. The clinical picture of testicular cancer.
7. Methods for the diagnosis of testicular cancer.
8. Differential diagnosis of testicular cancer.
9. Methods for the treatment of testicular cancer.
10. Precancerous diseases of the penis.
11. Epidemiology of penile cancer.
12. Etiology. Penile risk factors.
13. Features of growth and metastasis in penile cancer.
14. Stages of penile cancer. TNM classification.
15. Clinical picture of penile cancer.
16. Methods for diagnosing cancer of the penis.
17. Differential diagnosis of penile cancer
18. Methods for the treatment of penile cancer.
19. Prognosis for penile cancer.

**Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 2042-2074
- [1.2] Jame Abraham , James L. Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 382-408;
- [2.3] Dongyou Liu Handbook of tumor syndromes 2020, p. 219-306.

#### **Key questions covered in lesson 4**

1. The main anatomical and physiological features of the structure of the cervix
2. Epidemiology of cervical cancer.
3. Etiology. Risk factors for cervical cancer.
4. Precancerous diseases of the cervix.
5. Features of growth and metastasis in cervical cancer.
6. Stages of cervical cancer. TNM classification.
7. Clinical picture of cervical cancer
8. Methods for the diagnosis of cervical cancer.
9. Differential diagnosis of cervical cancer.
10. Methods for the treatment of cervical cancer.
11. Prognosis of cervical cancer.

#### **Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p2090-2145;
- [1.2] Jame Abraham , James L. Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 443- 461; 462- 470;
- [2.3] Dongyou Liu Handbook of tumor syndromes 2020, p. 219-306.

#### **Key questions covered in lesson 5**

1. The main anatomical and physiological features of the structure of the ovaries and fallopian tubes.
2. Epidemiology of ovarian cancer.
3. Etiology. Risk factors for ovarian cancer.
4. Precancerous diseases of the ovaries.
5. Features of growth and metastasis in ovarian cancer.
6. Stages of ovarian cancer. TNM classification.
7. The clinical picture of ovarian cancer
8. Methods for the diagnosis of ovarian cancer.
9. Differential diagnosis of ovarian cancer.
10. Methods for the treatment of ovarian cancer.
11. Prognosis of ovarian cancer.

#### **Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 2196-2241;
- [1.2] Jame Abraham , James L. Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 409- 426
- [2.3] Dongyou Liu Handbook of tumor syndromes 2020, p. 219-306.

#### **Key questions covered in lesson 6**

1. Classification of trophoblastic neoplasias.
2. Etiology. Risk factors for trophoblastic neoplasia.
3. Features of the growth and metastasis of trophoblastic neoplasias.
4. Classification of trophoblastic neoplasias. Stages.
5. The clinical picture of trophoblastic neoplasias.
6. Methods for the diagnosis of trophoblastic neoplasias.
7. Treatment of trophoblastic neoplasia.
8. Prognosis of trophoblastic neoplasias.

#### **Recommended reading for the lesson; serial number is indicated in square brackets**

- [1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 2187-2196.

#### **Key questions covered in lesson 7**

1. The main anatomical and physiological features of the uterus.
2. Epidemiology of endometrial cancer.
3. Etiology. Risk factors for endometrial cancer.
4. Precancerous diseases of the endometrium.
5. Features of growth and metastasis in endometrial cancer.
6. Stages of endometrial cancer. TNM classification.
7. The clinical picture of endometrial cancer.
8. Methods for the diagnosis of endometrial cancer.
9. Differential diagnosis of endometrial cancer.
10. Methods for the treatment of endometrial cancer.
11. The prognosis of endometrial cancer.

**Recommended reading for the lesson; serial number is indicated in square brackets**

[1.1] Vincent T. DeVita, Jr., Theodore S. Lawrence, Steven A. Rosenberg DeVita, Hellman and Rosenberg's Cancer Principles & practice of Oncology 11th edition. 2019, p. 2159-2187;

[1.2] Jame Abraham , James L.Gulley The Bethesda Handbook of Clinical Oncology Fifth edition. 2019, p. 427-442

[2.3] Dongyou Liu Handbook of tumor syndromes 2020, p. 219-306.

**Methodological instructions for the implementation of independent work on the discipline**

Recommended perform independent work in the form of diagrams and tables/charts. Examples will be given below.

| Biopsy      | Description | Indications | Contraindications |
|-------------|-------------|-------------|-------------------|
| FNA         |             |             |                   |
| Core-biopsy |             |             |                   |
| Excisional  |             |             |                   |
| Incisional  |             |             |                   |

| Type of cancer | Etiology | Clinical features | Investigations | Treatment | Prognosis |
|----------------|----------|-------------------|----------------|-----------|-----------|
| BCC            |          |                   |                |           |           |
| SCC            |          |                   |                |           |           |
| Melanoma       |          |                   |                |           |           |
|                |          |                   |                |           |           |

| List of manipulation  | Date       | Signature of mentor |
|---|------------|---------------------|
| Practice palpation skills on the simulator for examining the mammary glands (normal, tumors of various sizes, shapes and densities. Tumors are represented by adenomas, cysts, malignant tumors and enlarged lymph nodes) | 01/03/2023 | .....               |
| Use the phantom of the mammary gland for puncture under ultrasound control to practice fine-needle aspiration biopsy, core-needle biopsy, vacuum biopsy.  | 07/03/2023 | .....               |
|   |            |                     |
|   |            |                     |