Curriculum standard of Oncology discipline

1. **Code** – S.09.O.086

   **Preamble:** The oncologic pathology is one of the major clinical discipline, which morbidity and mortality are tending to increase. Although the incidence of some cancer localizations (stomach, esophagus, lungs) has been reduced, the incidence of such tumors as breast cancer (second place in the structure of morbidity by cancer in Moldova), prostate cancer, skin cancer, the mouth cancer soared.

   In the structure of lethality in Moldova the incidence of cancer possesses the second place. It is well known that the success in treatment of malignant tumors is correlated with preclinical and early detection of cancer. Despite technological progress, modernization of diagnosis and treatment modalities, the advanced stages of the tumor process constitute 30 – 40%, being in gastric and lung cancers even higher – 50 – 51%.

   Total hours – 70 hours, course – 20, seminars – 50, independent work - __ hours.

   Evaluation form - C.

2. **Propaedeutic knowledge:** Anatomy and physiology of the systems, Pathology, Biochemistry and Immunology, Internal Medicine, Surgery.

3. **The purpose of the discipline:** Teaching of 5-year students, Faculty of Medicine, in the aspect of assimilation of knowledge about mandatory and optional precancer states, treatment modalities in these pathologies (which constitute the secondary prophylaxis of cancer); detection of preclinical and early cancer (which ensures conditions for radical treatment, with chances of perfect curability in 95 – 98% of patients).

4. **Formation objectives within the frame of the subject of Oncology:**

   **Upon completion of the subject the student will be able:**

   **To know:**
   - Concepts and definition of tumor and its evolution. Terms of precancer states, concepts of mandatory and optional precancer.
   - Epidemiological aspects of cancer. Cancer and the environment. Carcinogenic factors (physical, chemical, biological, etc.). Age- and sex-related features.
   - The organization and structure of oncologic service in Moldova. The role of the department of Oncology and Institute of Oncology in the organization of cancer care. The activity of the district oncologic offices, and their role in the early detection of cancer.
   - Main tasks and directives of oncologic service.
The division of patients according to the clinical group (Ia, Ib, II, IIa, III, IV) Dispensary system and follow-up of oncologic patients.

To apply:

- Knowledge of anamnestic data, disease and life history.
- General examination of the skin with the aim of excluding skin tumors (basalioma, cancer, melanoma, sarcomas of the soft tissues of the body, etc.).
- Examination of the oral cavity, thyroid gland.
- Inspection, palpation of the mammary glands, peripheral lymph nodes (to exclude metastases in regional lymph nodes and hematological malignancies).
- Definition of Virchow’s metastasis
- Palpation and percussion of the chest in lung cancer and mediastinal tumors.
- Palpation, percussion and auscultation with the aim of exclusion of visceral tumors (gastric cancer, cancer of the PDZ, liver cancer, cancer of the colon, etc.), liver metastases, parietal carcinomatosis and ascites.
- Digital rectal examination in order to exclude rectal cancer, prostate cancer and Blummer-Schnitzler metastases (pararectal) in gastric cancer.
- X-ray interpretation in lung, gastric, esophageal, colorectal, urinary bladder cancer.
- Interpretation of mammography images
- Interpretation of the intravenous urograms, angiograms, polycystograms, pneumocystograms.
- Interpretation of the sectional tomography scanograms and computed tomography scanograms.
- Interpretation of nuclear magnetic resonance.
- Interpretation of the liver, spleen, kidneys, thyroid gland and bone radioisotope scintigrams.
- Interpretation of the ultrasound scanograms.
- Assistance within the frame of punctions of the visual-considered tumors (thyroid gland, breast, peripheral lymph nodes).
- Processing imprint smears in visual cancers (skin cancer, lips cancer, oral mucosa cancer, etc.).
- General concepts in treatment of malignant tumors:
  a. surgical treatment
  b. radiotherapeutic treatment
  c. cryotherapy treatment
  d. laser therapy treatment
  e. chemotherapeutic treatment
  f. hormonal treatment
  g. combined treatment (adjuvant and neoadjuvant)
  h. complex treatment

To integrate:

- To appreciate the importance of oncology in the context of General Medicine and integration with related medical disciplines (anatomy, histology, physiology and pathological physiology, biochemistry, etc.).
- Principles of diagnosis and treatment of oncological diseases with knowledge of internal medicine, urology, endocrinology, surgery, dermatovenerology, etc.
- Knowledge of pharmacokinetics and pharmacodynamics of the drugs used in the chemotherapy.
- Be able to objectively assess and self-assess the knowledge in the field of oncology of various localizations, with knowledge of internal medicine, endocrinology, dermatovenerology, etc.
- To take optimal decisions in rendering emergency aid in complications of cancer of different localizations, using knowledge of surgery, urology, etc.

5. **Optimized content of the discipline for the university step of teaching:**

6. Teaching methodology:
Course, practical lessons, independent work.

Course subjects:
1. History, structure and organization of oncologic service in Republic of Moldova.
   Skin cancer. Malignant melanoma.
2. Tongue and buccal mucosa cancer. Thyroid cancer.
3. Precancerous conditions and breast cancer.
5. Colorectal cancer.
7. PDZ (pancreaticoduodenal zone) and liver cancer.
8. Liver cancer.

Practical lessons themes
1. Skin cancer.
2. Malignant melanoma
3. Tongue and buccal mucosa cancer.
4. Thyroid cancer.
5. Precancerous conditions and breast cancer.
6. Gastric cancer.
7. Esophageal cancer.
8. Colorectal cancer.
10. Cancerul hepatic.
11. PDZ (pancreaticoduodenal zone) and liver cancer.
12. Liver cancer.
13. Liver cancer.

7. Knowledge assessment:
Current: continuous assessment, test-control.
Final: differentiated colloquial examination (assessment of practical skills, test-control, average annual mark).

8. Discipline credit points– 3

9. Recommended mandatory literature:

1. Lectures
5. линическ я онкология. чебник для студентов. ишинев, 2005, 830 с. ыбырнэ ă, орчм ру ă, офрони ă и др.