Adopted by the Department Meeting with Protocol No. 6/03.06.2020

ACADEMIC STANDARD
FOR THE COURSE RADIOLOGY
(RADIATION ONCOLOGY AND NUCLEAR MEDICINE)

1. Purpose of the discipline

The main goal of the discipline RADIOLOGY (RADIATION ONCOLOGY& NUCLEAR MEDICINE) is the in-depth acquaintance with the modern radiotherapeutic and nuclear medicine methods, the understanding of the place of the discipline as a part of the interdisciplinary approach in clinical oncology. The modern treatment of oncological diseases (solid tumors and oncohematological diseases) requires professional collaboration between surgeons, radiotherapists, medical oncologists, nuclear medicine specialists, psychologists, pathologists, geneticists and others. It is the team work that is a prerequisite for achieving excellent therapeutic results.

The goal is consistent with the mission and the vision of the university; the volume and the credit rating of the course (according to the ECTS system), are visible in the curriculum; the qualification characteristic of the specialty; a degree equivalent to a master's. The goal is consistent with the place of the discipline in the degree according to importance and the chronology of the curriculum. It is a generalizing discipline in the education of a medical students.

2. Content of the course

The content of the course program is arranged chronologically so that each subsequent lecture and related clinical cases use materials and concepts that have already been discussed. Unnecessary overlap of related disciplines is avoided with the aim of upgrading and updating the oncological knowledge.

3. Assumptions

The student must have basic knowledge of physics, biophysics, pharmacology, imaging, nuclear medicine, internal medicine, propaedeuticssurgical diseases in order to be able to upgrade that knowledge with the discipline. Radiology is part of the general training and exam

in Radiology for medical students. The exam is held jointly with the Department of Imaging Diagnostics.

4. Academic resources

The academic staff of the department includes two habilitated lecturers (a professor and an associate professor), 8 non-habilitated lecturers, three of whom currently have a scientific degree "Doctor" in the respective scientific specialty. The department also has two doctoral students in oncology. All teachers have acquired a specialty in the specialized areas of radiotherapy (radiation oncology) and nuclear medicine.

The lectures are given by a habilitated lecturer with an acquired scientific degree (Doctor of Science). Up to 30% of the lectures are assigned to non-habilitated lecturers with a scientific degree in the respective doctoral program.The practical exercises are led by non-habilitated lecturers (assistant, chief assistant). The non-habilitated lecturers have a master's degree in medicine and are appointed after a competition.

5. Material resources

The Department of Clinical Oncology at the Medical University, Plovdiv has four classrooms, three of which are equipped with a television screen and the opportunity for multimedia training.

6. Lectures

The lectures are prepared and delivered in the form of interactive multimedia presentations, in order to facilitate the assimilation of modern teaching material. The volume and format of the lectures are at the choice of the leading lecturer.

7. Practicums

They are held in groups. Methodological guidelines developed in the department and manuals are provided for the exercises. Individual and team tasks are set. The preparation of the student is checked, as well as the results (acquired knowledge and skills) from the specific exercise. Students are assigned tasks to solve at home, followed by a discussion with the group - the reporting student defends his clinical thesis and discusses the solution of the diagnostic / therapeutic problem.

8. Information resources

The teachers have developed lectures and exercises in the discipline. If necessary, they can provide abstracts in electronic version of lectures and other teaching materials. A list of the main recommended literature on the course in each of its components (lectures, exercises) with priority on modern available sources is provided. Internet resources are also recommended, from which suitable materials can be found for the preparation of the student.

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6. Collection of clinical oncology tests. Zh Grudeva-Popova (ed). Plovdiv 2019
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8. The MD Anderson Manual of Medical Oncology. Hagop M. Kantarjian, Robert A. Wolff, Charles A. Koller, McGraw-Hill Medical. 3-rd edition, 2017
9. Clinical Radiation Oncology: Expert Consult-Online and Print Consult, Leonard L. Gunderson (Author), Joel E. Tepper (Author) Saunders; Revised edition, 2019
10. Textbook of Radiation Oncology 3 Ed. Richard MD Hoppe (Author),1664 pages, Saunders; Revised edition, 2018
11. Radiation Oncology - management decisions. Chao Cl., Perez C, Brady LW Lippincott Williams & Wilkins, 2017

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9. Testing

Testing of the students' knowledge is carried out after the completion of the relevant module (section). At the start of the next practicum the students are provided with timely information, as well as explanations of the results of the test. This discussion supports their subsequent professional training. The results of these tests are included as a component in the final assessment for the semester.

10. Independent preparation and extracurricular work of the student

The independent work of the students and the consultations are conducted by an assistant according to a pre-announced schedule. One of the goals of the extracurricular activity is the opportunity to work with students who show a focused interest in the specialty. Students are consulted on the use of professional literature sources, as well as on the methods of their acquisition. Materials for independent work of the students are also provided.

11. Cooperation between teachers and students

Quality cooperation and the personal example of the teacher (competence, ability to work in a team, professionalism, etc.) are important prerequisites for the success of the joint activities with young people. The cooperation is expressed in the commitment of the teacher to the student and his preliminary preparation for overcoming the current difficulties in mastering the material; use of consultation hours; involvement of students in group activities and joint research.

12. Exams

Grades after colloquia, provided for in the curriculum of the course, are given depending on the results of the tests after each module, activity during the exercises and level of preparation. Clarifications of the results is recommended. This discussion supports the subsequent professional development. The results of these tests are included as a component in the final assessment for the semester.

13. Evaluation standards

The successful study of the discipline "Radiology" from the curriculum of MU, Plovdiv is assessed from the value of the grades, divided into two main elements:

The first includes the assessment of the student's academic activity during the semester in terms of the full and quality implementation of the forms of independent work provided in the curriculum of the discipline.

The second includes the grade from the exam. The regulation for conducting the exam is also important in order to minimize the possibility of manipulating its results.

Clear assessment standards are being developed for the discipline. Based on the above, a characteristic is determined for each exam grade:

Weak (2) receives a student with scarce knowledge, which can not serve as a basis for obtaining a master's degree;

Intermediate (3) receives a student who reproduces the knowledge in a "ready-made scheme", lacking the main and important points of the developed topic; there is no readiness for independent use of the accumulated clinical medical knowledge and professional competencies; there are serious terminological omissions;

Good (4) receives a student who shows limited independence in using the acquired knowledge and acquired professional competencies; in the exposition, although there is a good language culture, inaccuracies in the concepts used are allowed;

Very good (5)receives a student who develops the topic independently productively, non-standardly, looking for a new algorithm and analysis of the used literature data; tries to derive and substantiate his thesis; adequately uses the concepts from the scientific field of the studied discipline; has a good language and medical terminology culture;

Excellent (6) is awarded to a student who independently, logically, with the presence of a creative element brings out the topic; reasonably and originally uses and interprets the literature related to the question; demonstrates readiness to apply the acquired knowledge and professional competencies; its presentation is characterized by accuracy and rich linguistic culture of the exhibition.

At the start of classes, students should be familiar with the assessment standards, ongoing control procedures, and opportunities to get feedback on their progress during the semester.

14. Formation of the final grade

The final grade determines the extent to which the student has achieved the goal of the education, set at the beginning. It is multi-component and includes a final exam grade (written or oral) and a current control grade.

For each component participating in the final assessment, a coefficient of significance (from 0 to 1) is determined, and the total sum of the coefficients must always be 1. The final assessment is obtained as the sum of the six-point system scores from the various components multiplied by the respective coefficients of significance.

Q (final grade) = (k1xQ1)+ (k2xQ2) + (k3xQ3)

k1 = 0.30 coefficient for part written exam (test);

k2= 0.40 coefficient for oral exam part;

k3= 0.30 coefficient per current control;

Q1= assessment for part written exam (test);

Q2=assessment for part of oral exam;

Q3= assessment for part of current control;

If one of the components of the final examination is weak (2), the final grade is necessarily weak.

15. Documentation, storage of results and control of the evaluation activity

Assessing students have the right and obligation to be informed about the regulations, procedures and results of the assessment. The student's right within the meaning of the previous point is valid in cases of identified technical omissions or errors (for example, in calculating or applying grades), as well as in serious reasons for discrepancies between the actual demonstrated knowledge, skills and competencies and the final grade obtained by them. to understand from the teacher the reason for this result.

The exam materials are stored and students are given the opportunity to get acquainted with them for a valid reason. The period in which students are provided with access to the examination materials and results is not longer than 3 (three) working days after the date of the examination.

Corrections of the grades are allowed in the cases under the previous paragraph in the student's book, the examination protocol or the post-batch in the general book only by the holder of the discipline.

The characteristics of the course are provided to the student at the beginning of the training. This is in accordance with the Higher Education Act Art. 56, para. 1 *"teachers are obliged to develop and publish in an appropriate manner;the description of the lecture course, including titles and sequence of topics from the curriculum, recommended reading, the method of forming the assessment and the form of testing of the knowledge and skills."*

HEAD OF DEPARTMENT

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