Criteria for Assessing Students' Knowledge
Specialties: 7-07-0911-01 "General Medicine"
Department of Radiation Medicine and Ecology

In accordance with the Rules for Conducting the Certification of Students, Cadets, and Trainees in the Process of Mastering the Content of Higher Education Programs, approved by Resolution of the Ministry of Education of the Republic of Belarus dated 13.10.2023 No. 319; Order of the educational institution "Belarusian State Medical University" dated 25.03.2024 No. 318 On Approval of the Regulations on the Certification of Students, Cadets, and Trainees in the Process of Mastering the Content of Higher Education Programs; STU P 1.06-2023 Training of Specialists under Higher Education Programs; STU D 1.40-2022 Student Rating, students' current academic performance in classes, their knowledge and skills during the credit test are assessed **on a ten-point scale**.

10 (ten) points

- Systematized, deep, and comprehensive knowledge across all sections of the curriculum, as well as on key issues beyond it.
- Accurate use of scientific terminology (including in foreign languages), stylistically competent and logically correct presentation of answers.
- Flawless mastery of the discipline's tools and ability to use them effectively in setting and solving scientific and professional tasks.
- Pronounced ability to independently and creatively solve complex problems in non-standard situations.
- Complete and thorough mastery of both essential and supplementary literature recommended by the curriculum.
- Independent creative work in practical and laboratory classes, active participation in group discussions, high culture in task execution.
- Participation in student research work in the discipline.

9 (nine) points

- Systematized, deep, and comprehensive knowledge across all sections of the curriculum.
- Accurate use of scientific terminology (including in foreign languages), stylistically competent and logically correct answers.
- Mastery of the discipline's tools and ability to use them effectively for scientific and professional tasks.
- Ability to independently and creatively solve complex problems in non-standard situations within the curriculum's scope.
- Complete mastery of essential and supplementary literature recommended by the curriculum.
- Independent work in practical and laboratory classes, creative participation in group discussions, high culture in task execution.
- Participation in educational and research work.

8 (eight) points

- Systematized, deep, and comprehensive knowledge on all questions within the curriculum.
- Use of scientific terminology (including in foreign languages), stylistically competent and logically correct answers, ability to make reasoned conclusions.
- Ability to independently solve complex problems within the curriculum.
- Mastery of essential and supplementary literature recommended by the discipline.
- Active independent work in practical and laboratory classes, systematic participation in group discussions, high culture in task execution.

7 (seven) points

- Systematized, deep, and comprehensive knowledge across all sections of the curriculum.
- Use of scientific terminology (including in foreign languages), linguistically and logically correct answers, ability to make reasoned conclusions.
- Mastery of essential and supplementary literature recommended by the curriculum.
- Ability to independently apply standard solutions within the curriculum.

- Independent work in practical and laboratory classes, participation in group discussions, high culture in task execution.

6 (six) points

- Sufficiently complete and systematized knowledge within the curriculum.
- Use of necessary scientific terminology, stylistically competent and logically correct answers, ability to make reasoned conclusions.
- Ability to independently apply standard solutions within the curriculum.
- Mastery of essential literature recommended by the curriculum.
- Independent work in practical and laboratory classes, periodic participation in group discussions, high culture in task execution.

5 (five) points

- Adequate knowledge within the curriculum.
- Use of scientific terminology, stylistically competent and logically correct presentation of answers, ability to make conclusions.
- Ability to independently apply standard solutions within the curriculum.
- Mastery of essential literature recommended by the discipline.
- Independent work in practical and laboratory classes, participation in group discussions, high culture in task execution.

4 (four) points

- Adequate volume of knowledge within the educational standard.
- Mastery of essential literature recommended by the discipline.
- Use of scientific terminology, stylistically and logically correct answers without major errors.
- Mastery of the discipline's tools and ability to use them for solving standard tasks.
- Work under instructor guidance in practical and laboratory classes, acceptable culture in task execution.

3 (three) points

- Insufficiently complete knowledge within the educational standard.
- Knowledge of part of the essential literature recommended by the curriculum.
- Use of scientific terminology with significant linguistic and logical errors.
- Poor mastery of the discipline's tools, inability to solve standard tasks.
- Lack of orientation in key theories, concepts, and directions of the discipline.
- Passivity in practical and laboratory classes, low culture in task execution.

2 (two) points

- Fragmentary knowledge within the educational standard.
- Knowledge of individual literature sources recommended by the discipline.
- Inability to use the discipline's scientific terminology, presence of gross stylistic and logical errors in answers.
- Passivity in practical and laboratory classes, low culture in task execution

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- Absence of knowledge and competencies within the educational standard, or refusal to answer.

Form of Certification

- **4th semester** – Credit test on the section "Environmental Medicine."
- **5th semester** – Examination covering the entire studied content of "Radiation and Environmental Medicine."

Only students who have fully completed the syllabus and curriculum requirements are admitted to the credit test and exam.

The curriculum is considered incomplete if:

- There are unmade-up absences from classroom (lecture or practical) sessions.
- The arithmetic mean grade for the semester's classes is below 4.0 (without rounding).

Missed lectures without a valid reason must be made up with the lecturer. The "Passed" mark is awarded for a final score of **4.0 or higher** on the final work. For admission to the 5th semester exam, students must have:

- A credit mark for "Environmental Medicine."
- A score of at least **4.0** on the final work for "Radiation Medicine."

The exam covers both sections in accordance with the approved exam program.

The grade for the answer to each question on the examination ticket is determined by the sum of the maximum possible points and the points deducted for significant and minor errors made by the student in the answer.

The grade for the examination answer is calculated as the arithmetic mean of the grades for the answers to each question on the ticket.

Error Classification

Significant error: incorrect thought or action that distorts the essence of the knowledge or activity within the question. Deduction: **–2.0 points** per error. Examples:

- Incorrect definition of terms, laws, rules, formulas, scientific theories, or scope of application.
- Incorrect definition or naming of measurement units.
- Incorrect use of fundamental scientific concepts and categories.
- Incorrect use of laws, categories, and concepts of formal logic in diagnostic and therapeutic tasks.
- Violation of the algorithm for assessing total annual effective dose.
- Absence of reference to regulatory documents when assessing total annual effective dose and food activity.
- Errors in recommendations for protective measures depending on the situation.
- Incorrect tactical or ethical decisions due to inadequate application or ignorance of legal and ethical foundations of medical practice.

Minor error: incorrect thought or action without distorting the essence of the knowledge within the question. Deduction: **–1.0 point** per error. Examples:

- Substitution of categories, concepts, or features with secondary ones without distorting the essence.
- Violation of logical sequence in presenting theoretical material or solving tasks.
- Correct results obtained using inefficient methods.
- Use of non-professional vocabulary (slang).

Final Grade Calculation

The final grade is based on the student rating, considering certification results in semesters 4 and 5, exam performance, as well as **Racad** and **Rpract**, with bonus and/or penalty points.

- **Racad** includes:
- Grades from three colloquiums (weight: 0.8)
- Current academic performance grades (weight: 0.2) Example: Racad = ((6+7+8)/3) × 0.8 + ((4+4+5+6+4+6)/6) × 0.2 = 5.6
- **Rpract** – practical skills assessment, conducted during the exam based on evaluation sheets.
- **Final grade formula**: Re = Racad × 0.2 + Rpract × 0.2 + E × 0.6 + Bb – Pb where:
- **Bb** – bonus points (max 1.0)
- **Pb** – penalty points (max 1.0)

Bonus points (max 1.0):

- Preparation of a student research paper on department topics for a scientific-practical conference with international participation:
- Preparation of a student research work not included in the conference: **0.3 points**
- Conference participation: **0.5 points**
- Conference prize-winner (1st–3rd place) or participation in the national review-competition from the department: **1.0 point**

Penalty points (max 1.0):

- Written answer to a question from a missed lecture with a grade below 4.0 – **0.25 points** per lecture.

If a student has high current academic performance (rating ≥ 7 points) and achieves a higher score on the exam, the exam score may be entered in the credit-exam record without considering the rating. If a student scores below 4.0 in the oral exam, the rating is not considered. Upon retaking the "Radiation and Environmental Medicine" exam, only the new grade is recorded, without considering the student's rating.

Criteria for assessing students' knowledge were reviewed and approved at the meeting of the Department of Radiation Medicine and Ecology.

Protocol #1 dated "31" August 2026.

Head of the Department
of Radiation Medicine and Ecology,
PhD (Medicine), Associate Professor _____ A.R. Avetisov