



EXAM INSTRUCTIONS
of the discipline
"ADVANCED MATHEMATICS"
for Pharmacy
in the Faculty of Pharmacy
of Medical University – Plovdiv

1. The exam is conducted in person.
2. The current grades provided in the curriculum of the specialty are given for:
 - The results of the student in the seminars, course and individual assignments, student work with the lecturer and assistant, etc.;
 - At least two (one at the end of October and one at the beginning of December) colloquia.
3. The final grade in the exam is formed by 4 components:
 - Entrance theoretical test (preliminary stage of the exam), which is conducted in person in electronic environment (Moodle), according to pre-set criteria by lecturer and assistant known to the student. The subjective element is excluded when making the assessment. The minimum positive result is 50% correct answers, sanctioning the wrong answers and giving the opportunity to refrain from giving an answer.
 - Written exam (the actual stage of the exam), which lasts 2 hours and consists of solving mathematical problems from part III, as well as from parts I and II, if the student has not passed them successfully or wants to increase their grade. The students use one hour of extra time to solve more parts. The evaluation criteria for each component of the task are announced in advance, which excludes the subjective factor in the evaluation.
 - Colloquy (final stage of the exam), conducted according to the schedule for the day

between the student and the lecturer. Then the final grade is formed by the lecturer and the assistant in the presence of the student, taking into account the fourth component – the participation and work of the student in the lectures and the seminars, their self-preparation work and current control.

If the student has to take a remedial exam due to poor grades in any of the components, it is conducted according to the same scheme, taking into account the positive grades of the individual components in the previous grade, but given the opportunity to increase them at the student's request.

4. Standards for assessing student's achievement are carefully considered by the academic staff and are defined so as to objectify student assessments. The description of the standards for grades in "Advanced Mathematics" are the following:

- Excellent (6) – for excellent knowledge of the topics of the course, in-depth mastery of basic and important additional knowledge and skills, meaningful and correct understanding of the subject, possession of skills to solve sufficiently complex problems for the specialty, demonstrating their own thinking and reasoning of decisions;
- Very good (5) – almost meets the criteria for the higher grade, but has made small gaps in the accuracy and range of knowledge and skills;
- Good (4) – almost meets the criteria for the higher grades to a good extent, but has made some mistakes, has made gaps in completeness and accuracy;
- Medium (3) – has mastered the criteria for the higher grades, but to a satisfactory level, having shown basic knowledge and skills for the minimum positive grade;
- Weak (2) – does not meet the requirements for the higher grades.

At the beginning of the educational process in this discipline, students get acquainted with the standards for assessment, the procedures for conducting colloquia and the opportunities for receiving feedback on their progress during the semester.

5. The final assessment determines the extent to which the given student has achieved the goal of education set at the beginning. It is multi-component and includes to the greatest extent the assessment from the written final examination (for the three parts I, II, III) and the following additional components:

- 1) assessment(s) of current control and individual assignments;
- 2) assessment from the theoretical test;
- 3) assessment from an oral final exam (the colloquy);
- 4) assessment of the student's work in the hours during the semester, as here any unex-

cused absence from lectures with at least 50% inspections is sanctioned with 0.2 of the assessment;

The final score is obtained as the sum of the scores on the six-point scale of the various components, multiplied by the respective coefficients of significance, as follows:

$$Q_{\text{written exam}} = k1.Q_{\text{part I}} + k2.Q_{\text{part II}} + k3.Q_{\text{part III}}$$

$$k1 = k2 = k3 = 0.33;$$

$$Q_{\text{final grade}} = k4.Q_{\text{theor. test}} + k5.Q_{\text{written exam}} + k6.Q_{\text{oral exam}} + k7.Q_{\text{student's work}}$$

$$k4 = 0.22; k5 = 0.50; k6 = 0.16; k7 = 0.12.$$

If one of the components is Weak 2, then the final score is necessarily Weak 2.

6. All electronic devices are handed over to the invigilators upon entering the examination hall and must be turned off beforehand. A student's examination is annulled if additional devices are found during the examination, if cheating equipment is discovered, or if a conversation is held between the participants.

Approved by the Department Council №13 on 20.3.2026

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