

## Grading – Medical Biophysics – UMF Carol Davila

Knowledge acquired during the semester is evaluated through three grades:

| Activity   | Weight in final grade |
|--|-----------------------|
| Grade for practical exam ( <b>NP</b> )                       | 10 %                  |
| Grade for your activity during the year ( <b>NA</b> )        | 10 %                  |
| Grade of the written exam in the exam session ( <b>NG</b> ). | 80 %                  |

with the following observations:

- 1) The practical exam is **mandatory** and **eliminatory**. The minimum passing grade is 5. If the written exam is not taken or  $NP < 5$ , the student cannot take the written exam in the respective exam session.
- 2) The written exam is multiple choice and has 30 questions. Each correct answer gives you 0.3 point (1 point is awarded by default to each student). **A minimum of 12 correct answers is required in order to pass the exam.** The correspondence between the number of correct answers and the grade of the written exam (**NG**) is:

| Correct answers | NG                      | Correct answers | NG                                    |
|-----------------|-------------------------|-----------------|---------------------------------------|
| 0-11            | failed exam             | 21              | 7.3                                   |
| 12              | 4.6, final grade is 5 * | 22              | 7.6                                   |
| 13              | 4.9                     | 23              | 7.9                                   |
| 14              | 5.2                     | 24              | 8.2 (0.2 extra points are awarded) ** |
| 15              | 5.5                     | 25              | 8.5 (0.2 extra points are awarded) ** |
| 16              | 5.8                     | 26              | 8.8 (0.3 extra points are awarded) ** |
| 17              | 6.1                     | 27              | 9.1 (0.5 extra points are awarded) ** |
| 18              | 6.4                     | 28              | 9.4 (0.5 extra points are awarded) ** |
| 19              | 6.7                     | 29              | 9.7 (0.5 extra points are awarded) ** |
| 20              | 7                       | 30              | 10 (0.5 extra points are awarded) **  |

\* If only the minimum number of 12 points is obtained (4.6 grade), the final grade in the catalogue (NF) is 5, no matter the values of NP, NA.

\*\* For 24 or 25 correct answers, a bonus of 0.2 points is added to the final grade (NF). For 26 answers the bonus is 0.3 points. For 27 ... 30 correct answers, a bonus of 0.5 points is awarded.

The final grade in the catalogue (NF) is calculated as a weighted average as follows:

$$NF = 0.8 \times NG + 0.1 \times NP + 0.1 \times NA$$

---

**Please calculate your own grade according to this method. If there are any discrepancies with the grade in the catalogue, please inform us before the end of the exam session at the latest.**

## **Calculating the grade for the practical exam (NP)**

The practical exam is taken at the end of the semester (before the exam session), after finishing the lab activities (*lucrări practice*, LP). The practical exam evaluates the practical (correct handling of lab instruments) and theoretical (principles of the studied methods) knowledge acquired by the students.

At the practical exam, each student randomly receives a set of questions/activities to perform, out of several available sets. Each set of questions is structured as follows:

- I. a practical activity at one of the studied instruments (measuring a parameter, correct use of the instrument, etc.). *Grading: 3 points.*

- II. Measuring 1-2 parameters (frequency, amplitude) of an electrical recording of the cardiac activity of a patient (ECG analysis). *Grading: 1 point.*

- III ... VII: a simple question (to be solved in no more than 1-5 written lines) from seminars or other practical activities not covered by points I and II above. *Grading: 1 point per question.*

After receiving the questions, the student receives a solving time of minimum 25 minutes. The required practical activities are done in the presence of the teaching assistant. The results of each measurement/calculation or answer are also put in writing (and the written proof is kept by the teaching assistant). Each correct activity is graded and the final grade is awarded after summing up the points. 1 point is awarded by default to each student.

Reference: „*Biophysics Practical Sessions and Seminars*”, 2018, Ed. C.Davila, ISBN 978-606-011-051-4

## **Calculating the grade for the activity during the year (NA)**

The grade for the activity during the year (NA) is awarded by the teaching assistant at the practical activities; it reflects the degree of involvement of the students in the teaching activities.

The grading system is additive, and starts from a default grade of 4 (four), as follows:

- during the practical activities (11 weeks), the teaching assistant asks a question from the activities taught in the previous LP. A correct answer is awarded “+1 point”. An incorrect answer is not graded (zero points). These are written in the group catalogue.

- each student in the group will be examined this way at least 6 times during the 11 practical activities.

- For other teaching activities, the teaching assistant can award +/-1 point at his own discretion, only once to each student during the semester.

La sfârșitul semestrului punctele se însumează (pornind de la nota 4 din oficiu) și se obține nota de an.