

## PSYCHOLOGICAL AND PEDAGOGICAL INSTRUMENTS FOR THE TEACHER OF NATURE DISCIPLINES IN HIGHER MEDICAL EDUCATION

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The article considers the main psychological and pedagogical tools of the teacher in the field of fundamental training of applicants for higher medical education in the discipline "Medical and Biological Physics". The role of the teacher of the cycle of fundamental training in medical education and the pedagogical tools he or she uses deserve special attention. The stimulating influence and effect on the internal (why the student should do it) and external (in what conditions the student will do it) motivation of the student by the teacher is very important. The contemporary teacher must also restructure his/her activities because of new challenges in the education system and deviate from traditional methods, pursue permanent self-improvement, adapt to the way of thinking of students, understand and analyze it to be able to moderate the educational process, more widely use interactive methods and creative, individual approach focused on students, be practically oriented, innovative, etc.

The modern medicine has made a great step forward thanks to the development of new technologies based on the achievements of information, mathematical and natural sciences. Therefore, it is important for the future physician to know the basic laws of nature, including physical laws, which are basic for the disciplines of the clinical cycle. The discipline «Medical and Biological Physics» was formed at the intersection of physics, biology, chemistry and medicine and is one of the most important in the preparation of future physicians. The historical progress of medical education in our country gives convincing information about the close relationship between natural sciences and clinical departments, which is a guarantee of quality in fundamental training of graduates. Today's medicine widely uses the results of theoretical and experimental achievements in the field of physics, so the study of biological physics is important in the professional development and growth of the future competitive specialist, in the development of his/her personality.

If the motivation to study other disciplines of natural sciences is sometimes present, so to speak, "by default", and an additional stimulus for such studies is their inclusion into the structure of licensed exams, the discipline "Medical and Biological Physics" requires additional stimuli and pedagogical tools, namely:

- clear, logical structuring of the lesson to systematize the material;
- modeling of problem situations;
- moderation of the educational process;
- encouragement of independent and in-depth study of some issues, and others.

Finding and using effective incentives to motivate students is the key to improving their academic performance, which in turn is reflected in the future in their professional competence development. The main role in this process undoubtedly belongs to the teacher and well-chosen pedagogical tools.

The additional stimuli and pedagogical tools described in the article increase the motivation to study biological physics and understand its importance. Often the students' argument against studying this discipline is the lack of time, and this is another problem of first year students which needs to be addressed – their irrationality in planning their time.

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