

**‘NORMAL PHYSIOLOGY’ FOR INTERNATIONAL STUDENTS IN VSMU  
BURDENKO VORONEZH MEDICAL UNIVERSITY: TEACHING PRACTICE**

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**Abstract.** *The article presents the teaching experience of the discipline ‘Normal Physiology’ to foreign students of VSMU N.N. Burdenko. The issues of working with English-speaking students of IIMEC Faculty studying Normal Physiology from the first year of the university are considered. The practice of working with foreign students indicates that a significant part of the time is needed for foreign citizens to adapt within an unfamiliar country. Stress caused by the new living environment, the mentality of the host country, new eating habits and other changes in the life of students leaves a serious imprint on their academic performance, especially in the first years of the study at the university. It is necessary to take into account the occurrence of such distress reactions in order to find the optimal management of the educational process. Foreign students are often characterized by different levels of English language proficiency and general training in common. All this sometimes makes it difficult for them to study and leads to the appearance of academic debt. In this article, we are focused on the issues of finding measures that can be aimed at facilitating the process of adaptation of students to a new learning environment when studying the discipline ‘Normal Physiology’.*

**Keywords:** *Normal Physiology, foreign students, education, university, academic backlog, learning environment.*

For many years, the Voronezh State Medical University named after N.N. Burdenko has been providing training for highly specialized personnel in various areas of medical knowledge. The university is among the top 5 best medical universities in Russia, providing high quality education and its compliance with international standards. VSMU trains medical personnel for countries not only near but also far abroad, carrying out educational activities, including in the intermediary language – English. Since 2021, the fundamental theoretical discipline Normal Physiology has been taught already in the first year of the educational process, along with other fundamental disciplines such as Biochemistry, Anatomy and Histology.

**Rationale.** The study of basic theoretical disciplines from the very first days of study at the university contributes the quality of mastering the material by international students. Difficulties are associated with the fact that international students undergo a period of adaptation to living in a new country, experience stress reactions and are somewhat dis-

oriented due to a radical change in lifestyle. The new educational and information environment requires the need to search for adaptive mechanisms, which makes it difficult to concentrate attention and leads to academic problems in international students.

**Background.** To date, the program of the course "Normal Physiology" involves mastering the main sections of the discipline for three semesters, after which the final control is provided in the form of exam. In accordance with the educational standards and the programs compiled according to them, six modules are allocated in this course:

- Introduction to physiology. Nervous system;
- Nervous and humoral regulation of physiological functions;
- Particular physiology. Physiology of blood, circulation and respiration;
- Physiology of visceral systems: digestion, metabolism and energy, thermoregulation, regulation of acid-base balance, excretion, reproduction;
- Physiology of sensory systems;

- Integrative physiology. Physiology of the highest nervous activity. Physiology of adaptation. Labor activity.

The educational and auxiliary complex of the discipline includes textbook, workbooks with sets of test tasks and situational tasks, an electronic educational and methodological complex based on MOODLE, as well as a set of pedagogical control materials. During the training, foreign students not only acquire knowledge, but also acquire the skills of information systematization, critical thinking, and assessment of morphofunctional, physiological states and pathological processes in the human body to solve professional problems [1].

*Prerequisites.* So, what are the general challenges for educators? Based on the Pearson Education ideas there are some of them [2]:

- Keeping control
- Motivation/engagement
- Lack of tools (for students, too)
- Losing focus from studying
- Students' study skills
- Cheating
- Quality of materials
- Trust
- Work overload

These points are also essential for tutors of the medical university. It needs to take into account the level of English proficiency, which is different for people from various countries; difficulties arise when reading educational literature and when listening to lectures [2, 3]. To help the students, they are offered to watch video lectures, after which they attend practical classes and discuss theoretical material with the teacher. Students' self-directed learning of some topics is proposed to be considered in the context of short messages prepared by students in the form of presentations and reports. In some cases, the educational research work is carried out on the proposed topic. Many international students are interested in attending scientific conferences, especially at the international level. This potentiates their motivation, gives them the opportunity to plunge into the scientific environment by participating in the discussion of the presented reports. When preparing for classes, students are primarily fo-

cused on using the main material of lectures and textbooks, as well as additional material in the form of various presentations, diagrams and tables on the studied sections of the discipline. The consolidation of the material takes place through the solution of situational tasks and the performance of tests of the final level of knowledge in the MOODLE.

*Ways of problem solving.* Thus, practical classes include an oral-speech survey and the performance of experimental work, the discussion of the results of which is based on students' knowledge of theoretical material. In our practical classes, we invite students to prepare and defend their projects on various narrow-profile issues of the material being studied. Given that representatives of different countries study in groups, such reports with multimedia presentations allow them not only to study theory more deeply, but also to get to know each other better, find common ground, adapt to the learning process faster, improve their English language skills. Aim of the classes is to help learners succeed in the study of Physiology, and to achieve more.

In our opinion there is a necessity to use more exercises (not tests!) with their discussion and giving solutions, because it helps to analyze material being studied in general. We give students the time for preparation and then the opportunity to discuss their results with groupmates. Therefore, we use peer learning as an educational practice in which students interact with each other to attain educational goals. Sure, in some cases, slides and readings are enough, but communication with lecturer and classmates is hard to beat. Some authors believe that the students' expectations for the practical class are the usage of the video explanations and live stream, as well as brainstorming, problem solving, reflection and opportunity to debate with classmates (especially in seminars). We agree that the violation from the traditional / similar kind of work could be more interesting to them during classes. If we get back from our students, we can analyze the most difficult parts of the material to them. Thus, the educational practice is based on the principle "teach – test – teach" allowing tutors to facilitate educational process and to make it flexible. The

students' feedback makes a ground for future planning of the class.

**Conclusion.** In order to make the educational process more flexible not only for students but also for teachers we suppose that it would be more preferable to use peer learning and “teach-test-teach” system. Teachers and

students will be able to cope, if they will spend time on planning their work. Teachers should focus on the most essential things depending on a particular group of students. As tutors, we can use the tools we know perfectly well to help the students in the educational process.

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### ОПЫТ ПРЕПОДАВАНИЯ ДИСЦИПЛИНЫ «НОРМАЛЬНАЯ ФИЗИОЛОГИЯ» ИНОСТРАННЫМ СТУДЕНТАМ ВГМУ ИМ. Н.Н. БУРДЕНКО

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**Аннотация.** В статье представлен опыт преподавания дисциплины нормальная физиология иностранным обучающимся ВГМУ Н.Н. Бурденко. Рассмотрены вопросы особенностей работы с англоязычными студентами МИМОС, изучающими нормальную физиологию с первого курса университета. Практика работы с иностранными студентами свидетельствует о том, что значительная доля времени необходима иностранным гражданам для адаптации в пределах незнакомой страны. Стресс, вызванный новой средой проживания, менталитетом принимающей страны, новыми привычками в еде и иными изменениями в жизни студентов накладывает серьезный отпечаток на их успеваемости особенно на первых курсах обучения в университете. Необходимо принимать во внимание возникновение подобных дистресс-реакций в целях поиска оптимального ведения образовательного процесса. Иностранные обучающиеся зачастую характеризуются разным уровнем владения английского языка и общей подготовки в целом. Всё это порой затрудняет их обучение и приводит к появлению академической задолженности. В данной статье мы сконцентрируемся на вопросах поиска мер, которые могут быть направлены для облегчения процесса адаптации студентов к новой учебной среде при изучении дисциплины «Нормальная физиология».

**Ключевые слова:** нормальная физиология, иностранные студенты, образование, университет, академическая задолженность, учебная среда.