

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я  
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ  
УНІВЕРСИТЕТ**

**м. Чернівці  
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**МАТЕРІАЛИ  
З НАУКОВО-ПРАКТИЧНОЇ КОНФЕРЕНЦІЇ  
З МІЖНАРОДНОЮ УЧАСТЮ  
"МЕДИЧНА СИМУЛЯЦІЯ-  
ПОГЛЯД У МАЙБУТНЄ"**



question. The structure of the seminar class at the Department of Pediatric Dentistry is as follows: introductory speech by the teacher, consecutive listening to the reports of internship students, discussion of the speeches, determination of the value of the information heard for practical use.

At the end of the seminar, the teacher summarizes and analyzes the discussion of the topic. The level of knowledge of internship students, revealed at seminar classes, must be assessed. Grades are entered in the journal and are taken into account when issuing the final grade for the academic discipline.

Conclusions. The seminar requires a high level of independence of internship students – the ability to work with several sources, compare how the same issue is presented by different authors, make personal generalizations and conclusions. The seminar also allows to activate the cognitive and emotional activity of internship students, reveals their creative potential. Thus, the main thing in a seminar session is not so much the transfer of new information, but the expansion and consolidation of in-depth knowledge, abilities and skills, methods of obtaining and applying them.

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## **CLINICAL COMPETENCE IN SIMULATION MEDICINE**

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Medical education around the world has undergone significant changes. One of the reasons for the changes is concern for patient safety.

Simulation medicine can be used to resemble existing teaching material. The simulated scenarios are realistic enough to emotionally engage students, thereby providing a unique learning experience where the “patient” in the simulator speaks, breathes, blinks and moves with high fidelity just like a real patient. The simulation can be adapted to meet the needs of various medical specialties such as anesthesia, emergency medicine and trauma, intensive care,

obstetrics, pediatrics and radiology, as well as for use by other professionals such as nurses, paramedics

Medical training programs must ensure that students have the necessary learning opportunities and that they are assessed using appropriate methods. Clinical skills competencies including communication skills, history taking, professional attitude, health care ethics awareness, physical examination, procedural skills, clinical laboratory skills, diagnostic skills, therapeutic skills, resuscitation skills, critical thinking, clinical reasoning, problem solving, teamwork, organizational skills, management skills and information technology skills should be part of the core curriculum. Traditionally, the acquisition and continuous improvement of the high-level psychomotor skills required by the future physician occurs within the framework of the student style model: “See one, do one, teach one.” This apprenticeship style of teaching is no longer considered acceptable due to growing concerns about the quality of patient care and safety, as well as changes in health care systems. The pressures of managed care have shaped the patterns and frequency of hospitalizations and led to an increase in the proportion of patients with acute illnesses and a decrease in length of hospital stay. This has resulted in decreased opportunities for medical students to gain access to a wide range of diseases and physical conditions. Using real patients in hospitals over several years of training may result in a special method of teaching clinical skills as it depends on the availability of cases. and resulting suboptimal development and performance of clinical skills.

Simulation can be used in primary care settings to improve confidence in performing life skills, clinical skills, communication skills, and the quality of care for patients with chronic diseases such as diabetes and bronchial asthma. Simulators such as task trainers, computer systems, virtual reality and haptic systems, simulated patients, simulated environments, and integrated simulators have also been effectively used to assess and evaluate clinical skills.

The Simulation Training Center of the Bukovinian State Medical University with its new methods and equipment offers unique opportunities for practicing and managing dynamic, complex and unexpected medical situations.

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## **DIGITAL TOOLS FOR HISTOLOGY CLASSES**

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Clinical thinking and practical competencies of medical students are always based on a robust foundation of theoretical knowledge, despite the type of specialization they're obtaining. Higher medical institutions need to deliver theoretical subjects, especially in morphological fields, interactively and comprehensively, with diverse clinical correlations. This matter is of specific importance for the initial years of studies, when students enroll in a Histology, Cytology and Embryology discipline at BSMU. Moreover, the need for digital tools in morphological disciplines is acutely needed during remote and blended types of learning. Ukrainian experience in providing medical education in times of pandemic and aggressive full-scale invasion has proved its importance. Therefore this work aims to discuss digital tools for conducting practical classes in morphological disciplines, especially Histology, for first and second-year medical students.

A virtual laboratory is a digital tool that allows Morphological Departments and Scientific Laboratories to store their histological specimens in a digital format with a high resolution. Digital versions of histological slides can be further used for a variety of academic purposes, including tissue theoretical analysis during practical classes or lectures (on both tissue and cellular levels of organization); applying labels on digital slides for students' interpretation and individual learning; as an assessment tool for biopsy interpretation skills evaluation. Besides virtual laboratories, there exists a variety of virtual histological atlases that allow students to get acquainted with other universities' histological databases and compare different types of tissue processing. Studying histological material through virtual histological databases allows students to analyze samples with special types of stainings, as well as additional methods of microscopy. This is of high importance for institutions that are not equipped with scientific laboratories or during remote