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# TABLE OF CONTENTS

## AGRICULTURAL SCIENCES

1. *Войтенко Л. В., Заленська Є. А., Оне О.-В. З.* 15  
БУРОВІ ВІДХОДИ: ПЕРЕРОБКА МЕТОДОМ БІОКОМПОСТУВАННЯ.
2. *Михайликова В. В., Стребкова Н. С.* 22  
АНАЛИЗ ПРИМЕНЕНИЯ ПЕСТИЦИДОВ В РОССИЙСКОЙ ФЕДЕРАЦИИ.

## VETERINARY SCIENCES

3. *Bobrova V., Kravchenko S., Kanivets N., Karysheva L., Burda T.* 27  
ULTRASONOGRAPHIC FEATURES IN THE EXAMINATION OF THE PANCREAS IN DOMESTIC CATS DIAGNOSED WITH DIABETES MELLITUS: A PROSPECTIVE STUDY IN 7 CATS.
4. *Zayats K. R.* 31  
THYMUS. HISTOLOGY.
5. *Локес-Крупка Т. П., Бурда Т. Л., Зарицький С. М.* 34  
АЛЕРГІЇ У СВІЙСЬКИХ СОБАК (СХИЛЬНІСТЬ ТА КЛІНІЧНІ ОЗНАКИ).

## BIOLOGICAL SCIENCES

6. *Zubenko O. G., Biliaieva K. O.* 39  
APHIDIID WASPS (HYMENOPTERA, APHIDIIDAE) PARASITIZING APHIDS ON HERBACEOUS LEGUMES (FABACEAE) IN THE CENTRAL WOOD-AND-STEPPE ZONE OF UKRAINE.
7. *Григорова Н. В., Єрмак О. Л.* 45  
ВПЛИВ ВТОРИННОГО ПІЄЛОНЕФРИТУ НА БІОХІМІЧНІ ПОКАЗНИКИ КРОВІ ЧОЛОВІКІВ ПОХИЛОГО ВІКУ.

## MEDICAL SCIENCES

8. *Ashurova O. Yu.* 49  
PHARMACOLOGY AS A SCIENCE ABOUT DRUGS.
9. *Chernobay L., Vasylieva O., Oksenenko Ju.* 57  
RESEARCH OF MEDICAL STUDENTS FUNCTIONAL RESERVES IN THE CONDITIONS OF ADAPTATION TO STUDY LOADS.
10. *Dudko O. G., Yakimyuk D. I., Shayko-Shaykovskiy O. G., Reshma N. R.* 60  
TYPES OF BIODEGRADABLE MATERIALS FOR OSTEOSYNTHESIS OF LONG BONE FRACTURES.
11. *Golovaha M. L., Bilykh Ye. O.* 66  
CHRONIC KNEE PAIN PREVENTION AFTER ARTHROPLASTY WITH RADIOFREQUENCY NEUROABLATION.
12. *Kust V. V., Plakhtiienko I. O., Ivakhniuk T. V.* 68  
ANTIBIOTIC RESISTANCE PROFILE AMONG THE CAUSATIVE AGENTS OF OTOMYCOSIS.

13. *Антонова-Рафі Ю. В., Худецький І. Ю., Лагеца Д. В.* 72  
ОСНОВНІ ПІДХОДИ ДО КОНСЕРВАТИВНОГО ЛІКУВАННЯ  
СКОЛІОТИЧНИХ ВИКРИВЛЕНЬ ХРЕБТА.
14. *Гаврюшов Д. Н., Сенчук А. Я., Калюжная В. Н., Бойко В. Н.* 82  
РОЛЬ ВИТАМИНА D В РЕПРОДУКТИВНОМ ЗДОРОВ'Є ЖЕНЩИНЫ.
15. *Іванько О. Г., Бондаренко В. М.* 99  
АНАЛІЗ МАРКЕРІВ СТАНУ КИШЕЧНИКУ У ДІТЕЙ ПЕРШИХ РОКІВ  
ЖИТТЯ ЯК СПРОБА ВИЯВЛЕННЯ ЗАПАЛЬНОГО СТАНУ.
16. *Ляшук Р. П., Мігайчук Д. М., Сергій І. В.* 102  
НАВЧАННЯ В МЕДИЧНОМУ ВУЗІ В ПЕРІОД КАРАНТИНУ.
17. *Меренкова І. М., Арзуманова І. В., Базян А. А., Русанов О. Д.* 107  
ВПЛИВ ГІПЕРТИРЕОЗУ НА ПРОТІКАННЯ ВАГІТНОСТІ І  
КОРЕЛЯЦІЮ АКУШЕРСЬКИХ УСКЛАДНЕНЬ.
18. *Соловьева Е. Т.* 110  
КЛЕТОЧНЫЕ ПОКАЗАТЕЛИ ЛИПИДНОГО ОБМЕНА КАК МАРКЕР  
МЕТАБОЛИЧЕСКИХ СДВИГОВ ПРИ ИШЕМИЧЕСКОМ ИНСУЛЬТЕ.
19. *Смолен Ю. О., Маринчина І. М.* 112  
ОСОБЛИВОСТІ ЧАСОВИХ ТЕРМІНІВ ПЕРЕТИСНЕННЯ ПУПОВИНИ  
НЕДОНОШЕНИХ ДІТЕЙ.
20. *Стахова В. В., Маринчина І. М.* 117  
УЛЬТРАЗВУКОВЕ ДОСЛІДЖЕННЯ ПЛАЦЕНТИ І ПУПОВИНИ ПІД  
ЧАС ВАГІТНОСТІ ПРИ НАЯВНОСТІ ШКІДЛИВИХ ЗВИЧОК В  
ДОПОЛОГОВОМУ ПЕРІОДІ.
21. *Тешук В. Й., Тешук Н. В., Руських О. О.* 122  
ДОСВІД ЛІКУВАННЯ ДЕПРЕСИВНИХ ТА ТРИВОЖНО-ФОБІЧНИХ  
РОЗЛАДІВ У ПАЦІЄНТІВ, ЩО ПЕРЕНЕСЛИ ГОСТРІ ПОРУШЕННЯ  
МОЗКОВОГО КРОВООБІГУ В УМОВАХ ВІЙСЬКОВО-МЕДИЧНОГО  
КЛІНІЧНОГО ЦЕНТРУ ПІВДЕННОГО РЕГІОНУ УКРАЇНИ.
22. *Шманько В. В., Гніхдюх Р. В.* 125  
ВПЛИВ ПОЛІМОРФІЗМУ A1166C-ГЕНА РЕЦЕПТОРА  
АНГІОТЕНЗИНУ ІІ ПЕРШОГО ТИПУ НА ПЕРЕБІГ АРТЕРІАЛЬНОЇ  
ГІПЕРТЕНЗІЇ У МЕШКАНЦІВ ТЕРНОПІЛЬСЬКОЇ ОБЛАСТІ.
23. *Юсупов А. С., Маматкулов І. А., Файзиев О. Я.* 127  
ЭФФЕКТИВНОСТЬ ВВОДНОГО ПЕРИОДА АНЕСТЕЗИИ ПРИ  
ОФТАЛЬМОЛОГИЧЕСКИХ ОПЕРАЦИЯХ У ДЕТЕЙ.
24. *Якименко О. О., Закатова Л. В., Антіпова Н. М., Тбілелі В. В.,  
Тіхончук Н. С.* 129  
ОСОБЛИВОСТІ ПЕРЕБІГУ АНКІЛОЗИВНОГО СПОНДИЛОАРТРИТУ  
ТА КОМОРБІДНОЇ ПАТОЛОГІЇ ПРИ НЬОМУ В СУЧАСНИХ  
УМОВАХ.
- PHARMACEUTICAL SCIENCES**
25. *Chitishvili V. V., Semenova L. V., Toryanik L. A., Plotnikova N. V.,  
Filyanina N. M.* 132  
PHARMACY EDUCATION FOR FOREIGN STUDENTS.

26. *Решетняк Л. Р., Стаховська В. С.* 138  
УДОСКОНАЛЕННЯ ТЕХНОЛОГІЇ ОЧИЩЕННЯ ВОДИ ДЛЯ  
ІН'ЄКЦІЙ.

#### CHEMICAL SCIENCES

27. *Ziyadullayev A.* 142  
VINYLATION OF CYANURIC ACID BY ACETYLENE AT HIGH  
PRESSURE.
28. *Ткач В. В., Кушнір М. В., Мінакова Т. Г., Петрусяк Т. В.* 147  
ТРИ КОМБІНОВАНІ ХІМІКО-МАТЕМАТИЧНІ ЗАВДАННЯ В  
БРАЗИЛЬСЬКОМУ СТИЛІ НА ТЕМУ ОДНІЄЇ ПОРТУГАЛЬСЬКОЇ  
ПІСНІ.

#### TECHNICAL SCIENCES

29. *Gordiienko S. M., Kalishevska Yu. V.* 153  
PEDESTRIAN SAFETY PROBLEMS ON GROUND PEDESTRIAN  
CROSSINGS.
30. *Kuznietsov S., Venger O., Stepanenko D., Grishuk A.* 159  
NEW CATALYSTS FOR CARBON MONOXIDE CONVERSION.
31. *Lokotarov Ye.* 162  
AN ANALYSIS OF THE USAGE COMPUTING RESOURCES IN  
BLOCKCHAIN NETWORKS.
32. *Pavlenko O., Pryshchepa Ye., Tymoshenko A.* 165  
DETERMINATION OF MAXIMUM VOLTAGE.
33. *Zyma O., Rahomov R., Redkin O.* 171  
USAGE OF GEOINFORMATION SYSTEMS (GIS) TO PREVENT  
EMERGENCIES.
34. *Завойських Ю. А., Козуб Ю. Г.* 176  
ДИНАМІЧНЕ РЕГУЛЮВАННЯ РІВНЯ СКЛАДНОСТІ У  
ПРОЦЕДУРНО ГЕНЕРОВАНОМУ КОНТЕНТІ.
35. *Малюк С. В.* 180  
ДОСЛІДЖЕННЯ ПРОФІЛІВ КОЛІСНИХ ПАР ШВИДКІСНИХ ТА  
ВИСОКОШВИДКІСНИХ ПОЇЗДІВ.
36. *Моссур Д. Є.* 184  
ОПТИМІЗАЦІЯ СИНХРОНІЗАЦІЇ, КЕРУВАННЯ ТА ВІДТВОРЕННЯ  
СТАНІВ СПИСКІВ З ПОСТОРІНКОВИМ ВІДТВОРЕННЯМ.
37. *Одарченко Д. М., Сподар К. В., Карбівнича Т. В., Позднякова Л. О.* 189  
АНАЛІЗ ДІЮЧОЇ СИСТЕМИ УПРАВЛІННЯ ЯКІСТЮ НА  
МОЛОКОПЕРЕРОБНОМУ ПІДПРИЄМСТВІ ТА КОМПЛЕКСНА  
ТОВАРОЗНАВЧА ОЦІНКА ЙОГУРТІВ ПІДВИЩЕНОЇ БІОЛОГІЧНОЇ  
ЦІННОСТІ.
38. *Сухомлин В. И., Плошенко Л. С., Евдокимова Т. А.* 195  
ТЕХНОЛОГИЧЕСКИЕ ДЕФЕКТЫ ПРИ ПРОКАТКЕ  
НЕПРЕРЫВНОЛИТОЙ ЗАГОТОВКИ ИЗ НИЗКОУГЛЕРОДИСТОЙ  
СТАЛИ.

39.	<i>Тимошенко Ю. О., Скидан Б. О.</i> ОЦІНЮВАННЯ ПЛАТОСПРОМОЖНОСТІ МЕТОДАМИ МАШИННОГО НАВЧАННЯ.	201
40.	<i>Тимченко Н. М., Кузьменко О. Ю.</i> НЕОБХІДНІСТЬ ДЕРЖАВНОЇ ПІДТРИМКИ РОЗВИТКУ ЛОГІСТИЧНОЇ ІНФРАСТРУКТУРИ ТРАНСПОРТНИХ ПІДПРИЄМСТВ УКРАЇНИ.	204
41.	<i>Ушкаренко О. О., Малахова Н. Г., Лаптев О. І., Волинський В. О.</i> ПРИНЦИПИ АНАЛІЗУ АНАЛОГОВИХ ЕЛЕКТРОННИХ СХЕМ НА СТРУКТУРНО-ФУНКЦІОНАЛЬНОМУ РІВНІ.	210
42.	<i>Цюцюра М. І., Єрукаєв А. В., Степаненко М. О., Хмеленко Є. В.</i> ДОСЛІДЖЕННЯ КОРИСТІ ВИКОРИСТАННЯ ПЕРСОНАЛЬНИХ ДАНИХ ДЛЯ ЕКОНОМІКИ.	217
43.	<i>Шаповал В. О.</i> АНАЛІЗ КОРИСТУВАЦЬКОЇ ВЗАЄМОДІЇ В СИСТЕМІ ПЛАНУВАННЯ ТА КЕРУВАННЯ ОБЧИСЛЮВАЛЬНИМИ ВУЗЛАМИ БЛОКЧЕЙН-МЕРЕЖ.	222
44.	<i>Янин А. Е., Новикова С. Н.</i> ОПТИМІЗАЦІЯ БАЛОЧНОЇ КЛЕТКИ УПРОЩЕНОГО ТИПА.	226
<b>PHYSICAL AND MATHEMATICAL SCIENCES</b>		
45.	<i>Chernikov N. G., Chernikova I. D., Stanislavova N. A., Nedobega V. A.</i> RESEARCH OF THE ENERGY STRUCTURE OF THE SURFACE ARSENIDE GALLIUM AT ADSORPTION GERMANY.	233
46.	<i>Філінчук А. О., Вайсфельд Н. Д., Процеров Ю. С.</i> НАПРУЖЕНИЙ СТАН СКІНЧЕНОГО ЦИЛІНДРУ ПІД ДІЄЮ ВЛАСНОЇ ВАГИ.	241
<b>GEOGRAPHICAL SCIENCES</b>		
47.	<i>Любчук О. К., Гойман К. Д.</i> НОВІ СВІТОВІ ТЕНДЕНЦІЇ В РОЗВИТКУ ТУРИЗМУ.	247
<b>PEDAGOGICAL SCIENCES</b>		
48.	<i>Chubar V. V.</i> PREPARATION OF THE FUTURE TEACHER OF TECHNOLOGIES FOR INNOVATIVE PEDAGOGICAL ACTIVITY IN THE PROCESS OF PROFESSIONAL EDUCATION OF SENIOR STUDENTS.	254
49.	<i>Kazak Yu.</i> AN ACOLOGICAL APPROACH AS A STRATEGIC GUIDELINE IN A PROFESSIONAL TRAINING OF FOREIGN LANGUAGE TEACHERS.	264
50.	<i>Skaskiv A.</i> INTRODUCTION OF BLENDED LEARNING TECHNOLOGY.	269

## INTRODUCTION OF BLENDED LEARNING TECHNOLOGY

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**Introductions.** Finding optimal models and content to achieve software learning outcome. The use of online technologies makes learning more technological. Technologies can both improve and worsen its effectiveness, and therefore it is necessary to thoroughly study all the theoretical and methodological principles of teaching. For high-quality blended learning in a particular discipline, it is necessary to choose which types of activities will have the best effect online (synchronously or asynchronously), and which — through direct contact, to what extent and in what sequence. Distance or online technologies are the basis for the interaction of the subjects of the educational process in both blended learning and distance learning. In distance learning, the indirect interaction of subjects through online technology is crucial. This type of education is defined by the Law of Ukraine "On Education" as a separate form of education — distance.

**Aim.** To present the model of blended learning of TNPU as approach, pedagogical and technological model, methodology, which along with Internet technologies is also based on direct interaction between students and teachers in the classroom.

**Materials and methods** Simple introduction of technologies in traditional teaching can make the educational process somewhat more adapted to modern requirements, but will not fundamentally change its effectiveness. Such training can be called high-tech. Understanding blended learning as a learning model that gives students certain elements of control over the study of the material and the ability to personalize learning, opens up much broader prospects. The basis for the effective



use of blended learning is the technological readiness of teachers, students and educational institutions, as well as thorough methodological training of each discipline, choosing the optimal model of the learning process, designing a learning scenario as a sequence of actions and experience gained during the course. only classroom classes, and above all independent work of students. Qualitatively implemented blended learning significantly improves the educational process. Technological solutions are able to ensure the availability of materials, the possibility of constant support for students, the convenience of monitoring the learning process, automation of part of the teacher's work. Methodical approaches provide immersion of students in the learning process, learning the material, effective interaction between subjects, personalization of learning [2].

**Results and discussion.** Basic approaches to the implementation of any model of blended learning are important, and the specifics of each discipline and individual pedagogical approaches of the teacher create the preconditions for the formation of their own effective models. Well-known are rotational models, which are also used in the educational process of Ternopil Volodymyr Hnatiuk National Pedagogical University, among them the inverted classroom, flexible model, self-mixing model and in-depth virtual model. But this list is not unique, and the classification is quite conditional, as often different models are combined or supplemented, based on the needs of individual courses and student groups in the field.

There are several potentially important factors that may change each year and thus affect the course scenario: the specifics of the context in a particular situation, the number of students in the group; in what year of study students take the course; minimum and maximum duration and frequency of classes; place and method of classes [1]: in the classroom, in the laboratory, online; academic discipline more theoretical or practical; students have special life situations, special educational needs; with what motivation they come to the course, what are their expectations from the course; which learning style is preferred.

To implement an effective model of blended learning, it is necessary to approach the planning of the entire process of studying the discipline as a set of

interconnected types of student learning activities. To do this, you need to: clearly articulate the expected learning outcomes of the course and understand how they relate to the goals of the educational program; understanding how we can assess the progress of achieving expected learning outcomes at different stages; a plan of topics and activities for the whole course, where each element is directly related to the expected learning outcomes.

Each course contains three components that must be consistent with each other: 1. Expected learning outcomes, which are consistent with the objectives of the educational program and program learning outcomes. 2. Assessment, which verifies the identified learning outcomes. 3. All activities during the course that are aimed at achieving learning outcomes. To design or adapt the course, both theoretical and practical, we propose to use an approach: to structure students' learning, focusing on assessment, which is specifically designed to demonstrate that applicants have achieved the objectives of the course [3].

If the objectives of the course are a general vector, then to understand whether we have progressed towards these objectives, we need a clear description of the learning outcomes that will demonstrate this progress. It is a description of the knowledge, skills, abilities and key competencies required to demonstrate the achievement of the course objectives during the final assessment. It should be clear to applicants statements that describe what applicants will be able to do at the end of the course. One model that will help at this stage is the SOLO (Structure of the Observed Learning Outcomes) taxonomy [4]. SOLO illustrates qualitative differences between students' responses because it describes levels of understanding. SOLO taxonomy classifies understanding into five levels: 1. Prestructural: at this level the student does not understand the question. 2. Unistructural understanding: the answer contains only one aspect. 3. Multistructural: The answer contains several unrelated aspects. 4. Relational: The answer has several logically related aspects. 5. Extended abstract: Demonstration of an abstract and deep understanding, broader than was provided in the course, and its application to other situations.

**Conclusions.** Because well-formulated learning outcomes clearly define where a teacher plans to take his or her students at the end of the course, they significantly help students navigate the process. It is for this purpose that learning outcomes are included in the syllabi of each discipline and the lecturer can refer to them from time to time, showing students how the proposed tasks and activities will help them achieve a particular result.

During the semester, a dialogue is conducted with students on the effectiveness of learning to determine how much they think they have progressed in achieving these results. Clear learning outcomes not only help in the final assessment, but also correctly guide the educational process.

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